# FCC-DOC COMPLIANCE REPORT

**Test Report No. : E1/2014/C0023**
**Applicant : Toshiba Co., Semiconductor & Storage**
**Address : 2-5-1, Kasama, Sakae-Ku, Yokohama 247-8585, Japan**
**Manufacture : Toshiba Co., Semiconductor & Storage**
**Address : 2-5-1, Kasama, Sakae-Ku, Yokohama 247-8585, Japan**

**Equipment Under Test (EUT) :**
**Product Name : TransferJet SD Memory Card J-01**
**Brand Name : Toshiba**
**Model No. : THNST016GBA-D**
**Added Model(s) : N/A**
**FCC ID No : ZVZP42350TJ1**
**IC ID : 9906A-P42350TJ1**

**Standards** : FCC Part 15:2014, Subpart B, Class B
Canada ICES-003 Issue 5(Aug. 2012)

**Date of Receipt : Dec. 10, 2014**
**Date of Test : Dec. 10 ~ 22, 2014**
**Date of Issue : Jan. 16, 2015**

| **Test Result :** | **PASS** |
|---|---|

In the configuration tested, the EUT complied with the standards specified above.

**Remarks :**

This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report shall not be reproduced except in full, without the written approval of the laboratory. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

***Tested By:*** Wisely Huang **Date** Jan. 16, 2015
***Wisely Huang(Engineer)***

***Approved By*** Victo Wen **Date** Jan. 16, 2015
***Victo Wen(Assistant Manager)***

# Version

| Version No. | Description | Date |
|---|---|---|
| 00 | Original report | Jan. 16, 2015 |
| | | |

# Contents

# 1. General Information

## 1.1 Applicant & Manufacturer Information

| | |
|---|---|
| Applicant | : Toshiba Co., Semiconductor & Storage |
| Address of Applicant | : 2-5-1, Kasama, Sakae-Ku, Yokohama 247-8585, Japan |
| Manufacturer | : Toshiba Co., Semiconductor & Storage |
| Address of Manufacturer | : 2-5-1, Kasama, Sakae-Ku, Yokohama 247-8585, Japan |

## 1.2 General Description of EUT

| | |
|---|---|
| Product Name | : TransferJet SD Memory Card J-01 |
| Brand Name | : Toshiba |
| Model No. | : THNST016GBA-D |
| Added Model(s) | : N/A |
| Model Difference | : N/A |

## 1.3 Details of EUT

| | |
|---|---|
| Power Rating | : From PC System |
| Modes/Function | : 1. SD R/W<br>2. WLAN Communication |
| Worst case | : 2. WLAN Communication |
| Maximum Clock Frequency | : 4.48GHz |
| Adapter | : N/A |

## 1.4 Operation Procedure

Test mode 1

1. The EUT inserted NB1.
2. The NB1 is connected to adaptor, then turn on the power.
3. Other peripheral (USB Dongle, Printer) placed on the table edge by per 10 centimetres.
4. Executed Windows 7 program by notebook1 and the screen is full of "H" pattern.
5. Executed WINTHRAX.
6. Start testing.

Test mode 2

1. The EUT inserted NB1.
2. The NB1 and NB2 is connected to adaptor, then turn on the power.
3. The NB peripheral (USB Dongle, Printer) placed on the table edge by per 10 centimetres.
4. Executed Windows 7 program by notebook1 and the screen is full of "H" pattern.
5. Executed Windows 7 program by notebook2, open the TransferJet Rx APP wireless program and connected with support unit Notebook1 wireless SD Card.
6. Start testing.

## 1.5 Description of Support Units

| PRODUCT | MANUFACTURER | MODEL NO. | SERIAL NO. |
|---|---|---|---|
| PRINTER | HP | Deskjet 2000 | CN33K19J3R |
| MOUSE | Logitech | M-U0026 | 1310HS02PYD8 |
| NB1 (by client) | TOSHIBA | PORTEGE R30-A Series | XE105762H |
| NB1 Adaptor (by client) | TOSHIBA | PA5035U-1ACA | T14370002535A03 |
| NB2 (by client) | TOSHIBA | PORTEGE R30-A Series | XE105759H |

## 1.6 Modification List

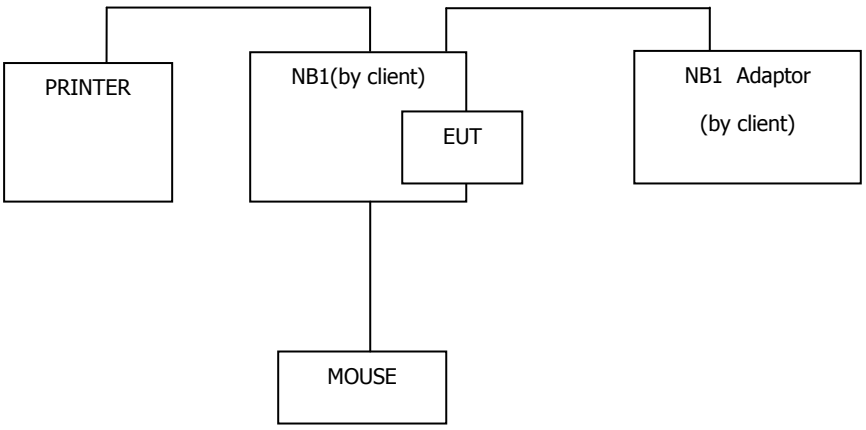
No modification was made by SGS Taiwan Electronics & Communication Laboratory.

## 1.7 Cable List

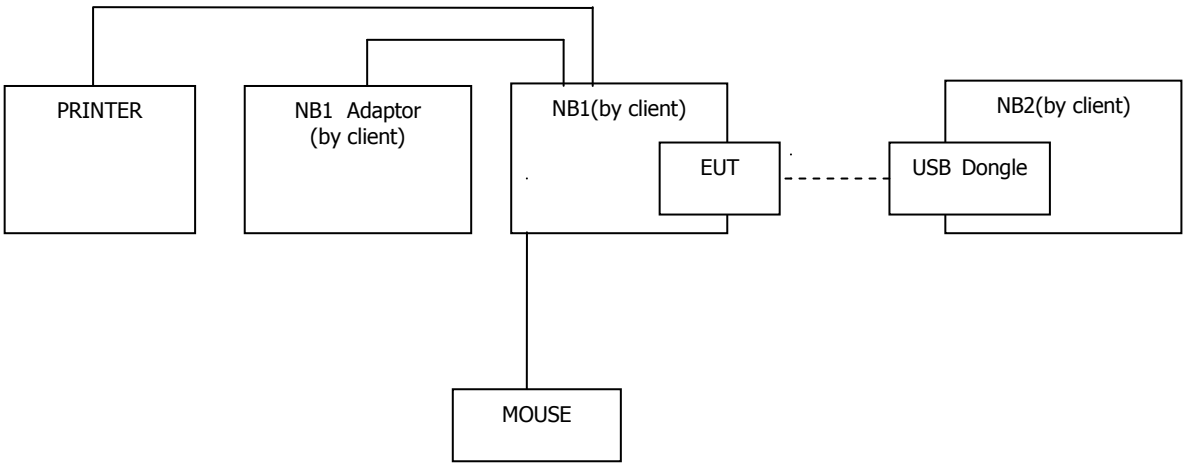
| Cable Type | Length | Shielding/Non-shielding |
|---|---|---|
| N/A | N/A | N/A |

## 1.8 Test Set-Up Configuration

Test mode 1




Test mode 2



## 1.9 Measurement Procedure

Conducted Emission Testing was performed according to ANSI C63.4:2009 in a shielded room with peripherals placed on a table, 0.8m high over a metal floor. It was located more than required distance away from the shielded room wall.

Radiated Emission Testing was performed according to ANSI C63.4:2009 at the 10m semi-anechoic chamber. The EUT was placed on a 0.8m high table along with the peripherals. The turn table was placed 10m distance from the antenna. Cables were placed in a position to produce maximum emissions as determined by experimentation, and operation mode was selected for production of maximum emission.

The frequencies and amplitudes of maximum emission were measured at varying azimuths, antenna heights and antenna polarities. Maximum emission levels are then reported.

## 1.10 Standards Applicable for Testing

Tests to be carried out under FCC Part 15, Subpart B

| Test Standards | Status |
|---|---|
| FCC Part 15, Subpart B | Applicable |
| Deviation from Standard | No deviation |

## 1.11 Summary of Results

| Highest Emission | | | | | |
|---|---|---|---|---|---|
| **Standard** | **Test Type** | **Result** | **Phase/Pol.** | **Frequency(MHz)** | **Margin(dB)** |
| FCC Part 15 Subpart B Class B / CISPR 22 Class B Canada ICES-003 Issue 5(Aug. 2012) | Conducted Emission | PASS | Line | 0.6340 | -12.74(peak) |
| | | | Neutral | 0.6325 | -7.85(peak) |
| | Radiated Emission | PASS | Ver. | 40.7300 | -13.30(QP) |

# 2. EMISSION

## 2.1 Test Results

| | Results |
|---|---|
| Conducted Emission | **Pass** |
| Radiated Emission | **Pass** |

## 2.2 Frequency Range

Conducted Emission : 150 kHz - 30 MHz

Radiated Emission : See below table

| Highest frequency generated or used in the device or on which the device operates or tunes (MHz) | Upper frequency of measurement range (MHz) |
|---|---|
| Below 1.705 | 30 |
| 1.705 - 108 | 1000 |
| 108 - 500 | 2000 |
| 500 - 1000 | 5000 |
| Above 1000 | 5th harmonic of the highest frequency or 40 GHz, whichever is lower |

## 2.3 Limits of Conducted and Radiated Emission

### 2.3.1 Limits of Conducted Emission for FCC Part 15, Subpart B/CISPR 22

| FREQUENCY (MHz) | Class A (dBuV) | | Class B (dBuV) | |
|---|---|---|---|---|
| | Quasi - peak | Average | Quasi - peak | Average |
| 0.15 - 0.5 | 79 | 66 | 66 - 56 | 56 - 46 |
| 0.50 - 5.0 | 73 | 60 | 56 | 46 |
| 5.0 - 30.0 | 73 | 60 | 60 | 50 |

Note : (1) The lower limit shall apply at the transition frequencies.
(2) The limit decreases linearly with the logarithm of the frequency in the range 0.15 to 0.50 MHz.
(3) All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected there to, shall not exceed the level of field strengths specified above.

### 2.3.2 Limits of Radiated Emissions for FCC Part 15, Subpart B/CISPR 22

**FCC Limit:**

- Detector Function : Quasi – Peak

| FREQUENCY (MHz) | Class A (at 10m) dBuV/m | Class B (at 3m) dBuV/m |
|---|---|---|
| 30~88 | 39 | 40 |
| 88~216 | 43.5 | 43.5 |
| 216~960 | 46.44 | 46 |
| Above 960 | 49.54 | 54 |

- Detector Function : Peak , Average

| FREQUENCY (MHz) | Class A (dBuV) (at 3m) | | Class B (dBuV) (at 3m) | |
|---|---|---|---|---|
| | Peak | Average | Peak | Average |
| Above 1000 | 79.3 | 59.3 | 73.9 | 53.9 |

**CISPR Limit:**

- Detector Function : Quasi – Peak

| FREQUENCY (MHz) | Class A (at 10m) dBuV/m | Class B (at 10m) dBuV/m |
|---|---|---|
| 30-230 | 40 | 30 |
| 230-1000 | 47 | 37 |

- Detector Function : Peak , Average – Class A

| Frequency range GHz | Average Limit dB(μV/m) | Peak Limit dB(μV/m) |
|---|---|---|
| 1 to 3 | 56 | 76 |
| 3 to 6 | 60 | 80 |

- Detector Function : Peak , Average – Class B

| Frequency range GHz | Average Limit dB(μV/m) | Peak Limit dB(μV/m) |
|---|---|---|
| 1 to 3 | 50 | 70 |
| 3 to 6 | 54 | 74 |

Note : The lower limit applies at the transition frequency.

## 2.4 Test of Conducted Emission

### 2.4.1 Test Equipments

| SGS Conducted Emission Test Site No. A | | | | | |
|---|---|---|---|---|---|
| **Name of Equipment** | **Manufacturer** | **Model** | **Serial Number** | **Calibration Date** | **Calibration Due** |
| EMI Test Receiver | R&S | ESCI 3 | 101311 | Jun. 20, 2014 | Jun. 19, 2015 |
| Coaxial Cables | N/A | N30N30-1042-150cm | N/A | Feb. 07, 2014 | Feb. 06, 2015 |
| LISN | Schwarzbeck | NSLK 8127 | 8127-648 | Jun. 10, 2014 | Jun. 09, 2015 |
| Pulse Limiter | Narda S.T.S. | PMM PL01 | 1110X30602 | Aug. 13, 2014 | Aug. 12, 2015 |
| LISN | Rolf-Heine | NNB-2/16Z | 99012 | Mar. 26, 2014 | Mar. 25, 2015 |
| ISN | TESEQ | ISN T800 | 34384 | Mar. 06, 2014 | Mar. 05, 2015 |
| ISN | TESEQ | ISN ST08 | 36271 | Oct. 03, 2014 | Oct. 02, 2015 |
| RF Current Probe | Schwarzbeck | SW 9605 | SW 9605-138 | Oct. 02, 2014 | Oct. 01, 2015 |
| Capacitive Voltage Probe | Schwarzbeck | CVP 9222 | 9222-031 | Oct. 08, 2014 | Oct. 07, 2015 |
| DC LISN | Schwarzbeck | NNBM 8124 | 8124-564 | Nov. 10, 2014 | Nov. 09, 2015 |
| DC LISN | Schwarzbeck | NNBM 8124 | 8124-565 | Nov. 10, 2014 | Nov. 09, 2015 |
| High Voltage Probe | Schwarzbeck | TK 9420 | TK 9420-5223 | Mar. 07, 2014 | Mar. 06, 2015 |
| Test Software | Farad | EZ-EMC | Ver. SGS-03A2 | N.C.R. | N.C.R. |

### 2.4.2 Test Site

SGS Taiwan LTD. Electronics & Communication Laboratory
No.2, Keji 1st Rd., Guishan Township, Taoyuan County, Taiwan333

### 2.4.3 Operating Environment

Temperature : 19 degree C Humidity : 49 %RH
Atmospheric Pressure : 992 mBar

### 2.4.4 Measurement Uncertainty of Conducted Emission

Expanded uncertainty (K=2) of conducted emission is 2.20 dB.

### 2.4.5 Measurement Level Calculation

Factor = LISN insertion loss + Cable loss
Measurement Level = Reading Level + Factor

## 2.4.6 Measurement Data:

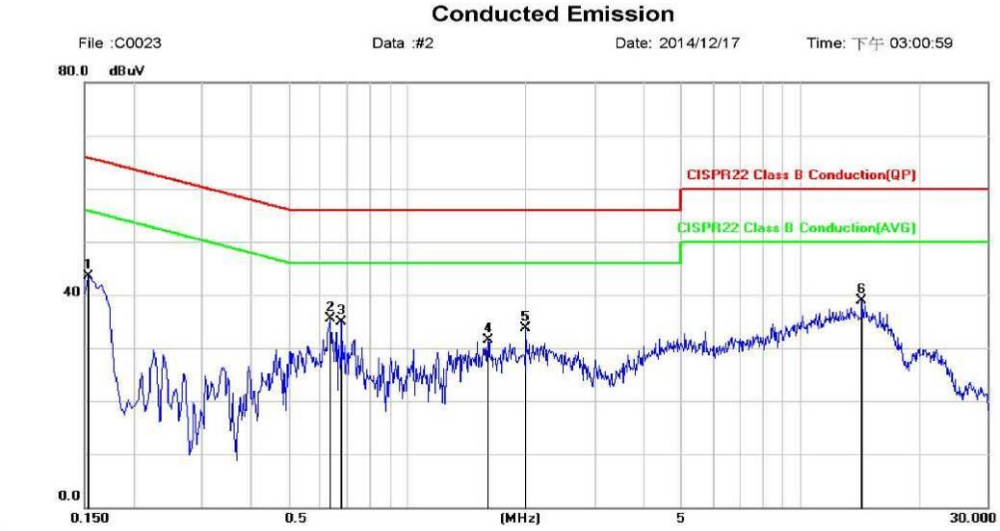
### Test mode 1

### L

Site : Conduction Room
Limit: CISPR22 Class B Conduction(QP)
Mode: R/W (NN-16G-02)
Note:

Phase: L1
Power: From System

Temperature: 19 ℃
Humidity: 49 %




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV | dBuV | dB | Detector | Comment |
| 1 | | 0.1540 | 43.50 | 0.09 | 43.59 | 65.78 | -22.19 | peak | |
| 2 | * | 0.6340 | 35.26 | 0.27 | 35.53 | 56.00 | -20.47 | peak | |
| 3 | | 0.6820 | 34.53 | 0.30 | 34.83 | 56.00 | -21.17 | peak | |
| 4 | | 1.6020 | 31.08 | 0.52 | 31.60 | 56.00 | -24.40 | peak | |
| 5 | | 2.0060 | 33.15 | 0.58 | 33.73 | 56.00 | -22.27 | peak | |
| 6 | | 14.3780 | 38.29 | 0.61 | 38.90 | 60.00 | -21.10 | peak | |

*:Maximum data x:Over limit !:over margin

File :C0023\Data :#2 Page: 1

**N**

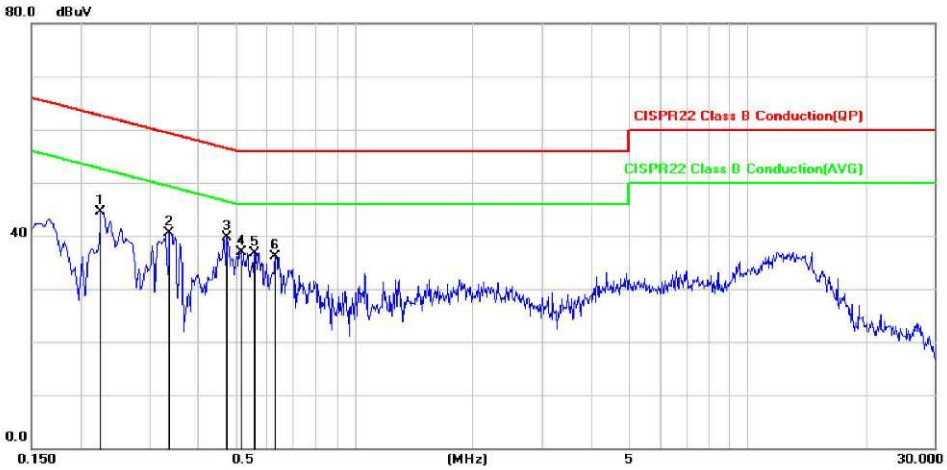
Site : Conduction Room
Limit: CISPR22 Class B Conduction(QP)
Mode: R/W (NN-16G-02)
Note:

Phase: N
Power: From System

Temperature: 19 ℃
Humidity: 49 %

## Conducted Emission

File :C0023 Data :#1 Date: 2014/12/17 Time: 下午 02:58:12




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV | dBuV | dB | Detector | Comment |
| 1 | | 0.2260 | 44.39 | 0.10 | 44.49 | 62.60 | -18.11 | peak | |
| 2 | | 0.3380 | 40.33 | 0.15 | 40.48 | 59.25 | -18.77 | peak | |
| 3 | * | 0.4740 | 39.48 | 0.22 | 39.70 | 56.44 | -16.74 | peak | |
| 4 | | 0.5140 | 36.73 | 0.25 | 36.98 | 56.00 | -19.02 | peak | |
| 5 | | 0.5580 | 36.53 | 0.25 | 36.78 | 56.00 | -19.22 | peak | |
| 6 | | 0.6300 | 35.75 | 0.27 | 36.02 | 56.00 | -19.98 | peak | |

*:Maximum data x:Over limit !:over margin

*File :C0023\Data :#1* *Page: 1*

## Test mode 2

## L

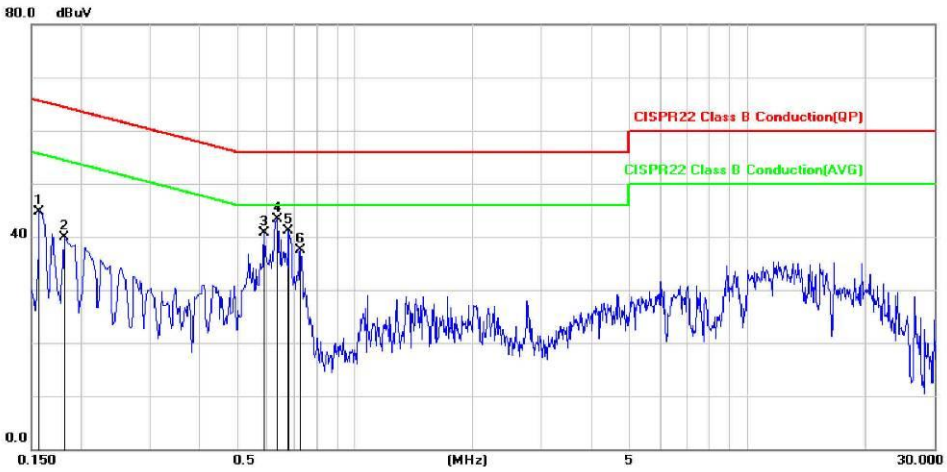
Site : Conduction Room
Limit: CISPR22 Class B Conduction(QP)
Mode: WLAN Communication(RS-16G-01)
Note:

Phase: L1
Power: From System

Temperature: 19 ℃
Humidity: 49 %

**Conducted Emission**

File :C0023 Data :#4 Date: 2014/12/17 Time: 下午 03:34:55




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV | dBuV | dB | Detector | Comment |
| 1 | | 0.1580 | 44.67 | 0.09 | 44.76 | 65.57 | -20.81 | peak | |
| 2 | | 0.1820 | 39.76 | 0.09 | 39.85 | 64.39 | -24.54 | peak | |
| 3 | | 0.5900 | 40.42 | 0.25 | 40.67 | 56.00 | -15.33 | peak | |
| 4 | * | 0.6340 | 42.99 | 0.27 | 43.26 | 56.00 | -12.74 | peak | |
| 5 | | 0.6820 | 40.79 | 0.30 | 41.09 | 56.00 | -14.91 | peak | |
| 6 | | 0.7300 | 37.14 | 0.32 | 37.46 | 56.00 | -18.54 | peak | |

*:Maximum data x:Over limit !:over margin

File :C0023\Data :#4 Page: 1

**N**

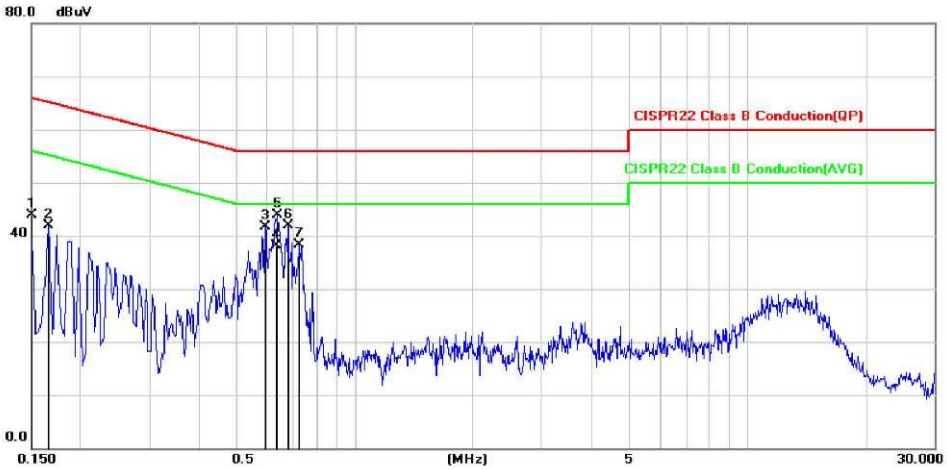
Site : Conduction Room
Limit: CISPR22 Class B Conduction(QP)
Mode: WLAN Communication(RS-16G-01)
Note:

Phase: N
Power: From System

Temperature: 19 ℃
Humidity: 49 %

## Conducted Emission

File :C0023 Data :#3 Date: 2014/12/17 Time: 下午 03:29:04




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV | dBuV | dB | Detector | Comment |
| 1 | | 0.1500 | 43.81 | 0.09 | 43.90 | 66.00 | -22.10 | peak | |
| 2 | | 0.1660 | 41.81 | 0.09 | 41.90 | 65.16 | -23.26 | peak | |
| 3 | | 0.5940 | 41.52 | 0.26 | 41.78 | 56.00 | -14.22 | peak | |
| 4 | * | 0.6325 | 37.88 | 0.27 | 38.15 | 46.00 | -7.85 | AVG | |
| 5 | | 0.6380 | 43.63 | 0.27 | 43.90 | 56.00 | -12.10 | peak | |
| 6 | | 0.6780 | 41.58 | 0.30 | 41.88 | 56.00 | -14.12 | peak | |
| 7 | | 0.7220 | 38.04 | 0.32 | 38.36 | 56.00 | -17.64 | peak | |

*:Maximum data x:Over limit !:over margin

*File :C0023\Data :#3* *Page: 1*

## 2.5 Test of Radiated Emission

### 2.5.1 Test Instruments

#### Below 1GHz

| SGS 10m Chamber (30M~1000M) | | | | | |
|---|---|---|---|---|---|
| **Name of Equipment** | **Manufacturer** | **Model** | **Serial Number** | **Calibration Date** | **Calibration Due** |
| EMI Test Receiver | R&S | ESCI 3 | 101342 | Jan. 18, 2014 | Jan. 17, 2015 |
| EMI Test Receiver | R&S | ESCI 3 | 101343 | Jan. 16, 2014 | Jan. 15, 2015 |
| Broadband Antenna | TESEQ | CBL 6112D | 35241 | Jan. 20, 2014 | Jan. 19, 2015 |
| Broadband Antenna | TESEQ | CBL 6112D | 35242 | Jan. 20, 2014 | Jan. 19, 2015 |
| Pre Amplifier | EMC Instruments | EMC330 | 980178 | Apr. 03, 2014 | Apr. 02, 2015 |
| Pre Amplifier | EMC Instruments | EMC330 | 980179 | Apr. 03, 2014 | Apr. 02, 2015 |
| Coaxial Cable | Huber+Suhner | RG 214/U | W30.02 | Apr. 01, 2014 | Mar. 31, 2015 |
| Coaxial Cable | Huber+Suhner | RG 214/U | W31.02 | Apr. 01, 2014 | Mar. 31, 2015 |
| Coaxial Cable | Huber+Suhner | RG 214/U | W30.03 | Apr. 01, 2014 | Mar. 31, 2015 |
| Coaxial Cable | Huber+Suhner | RG 214/U | W31.03 | Apr. 01, 2014 | Mar. 31, 2015 |
| Controller | MF | MF-7802 | N/A | N.C.R. | N.C.R. |
| Controller | MF | MF-7802 | N/A | N.C.R. | N.C.R. |
| Antenna Master | MF | N/A | N/A | N.C.R. | N.C.R. |
| Antenna Master | MF | N/A | N/A | N.C.R. | N.C.R. |
| Antenna Master | MF | N/A | N/A | N.C.R. | N.C.R. |
| Turn Table | MF | N/A | N/A | N.C.R. | N.C.R. |
| Site NSA | SGS | 10m Chamber | 10M SAC | Jan. 12, 2014 | Jan. 11, 2015 |
| Test S/W | Farad | EZ-EMC | Ver. SGS-03A2 | N.C.R. | N.C.R. |

## Above 1GHz

| SGS 966 Chamber No. A | | | | | |
|---|---|---|---|---|---|
| **Name of Equipment** | **Manufacturer** | **Model** | **Serial Number** | **Calibration Date** | **Calibration Due** |
| Spectrum Analyzer | R&S | FSV 40 | 101058 | Jan. 13, 2014 | Jan. 12, 2015 |
| EMI Test Receiver | R&S | ESCI 7 | 100950 | Jan. 11, 2014 | Jan. 10, 2015 |
| Horn Antenna | Schwarzbeck | BBHA9120D | BBHA9120D803 | Jan. 24, 2014 | Jan. 23, 2015 |
| Horn Antenna | Schwarzbeck | BBHA9170 | BBHA9170-184 | Jan. 23, 2014 | Jan. 22, 2015 |
| Horn Antenna | ETS-Lindgren | 3160-09 | 00117911 | Jan. 22, 2014 | Jan. 21, 2015 |
| Horn Antenna | ETS-Lindgren | 3160-10 | 00117783 | Jan. 22, 2014 | Jan. 21, 2015 |
| Pre Amplifier | EMC Instruments | EMC012645B | 980216 | Sep. 30, 2014 | Sep. 29, 2015 |
| Pre Amplifier | R&S | SCU-18 | 10203 | Mar. 26, 2014 | Mar. 25, 2015 |
| Pre Amplifier | R&S | SCU-26 | 100780 | Mar. 26, 2014 | Mar. 25, 2015 |
| Pre Amplifier | R&S | SCU-40 | 100356 | Mar. 26, 2014 | Mar. 25, 2015 |
| Pre Amplifier | EMC Instruments | EMC184045B | 980135 | Oct. 27, 2014 | Oct. 26, 2015 |
| Coaxial Cable | JUNFLOW | MWX221-NMSNMS | J0778929 | Apr. 23, 2014 | Apr. 22, 2015 |
| Coaxial Cable | Huber+Suhner | SUCOFLEX 104PEA | 30255/4PEA | Apr. 23, 2014 | Apr. 22, 2015 |
| Coaxial Cable | Huber+Suhner | SUCOFLEX 102 | MY 2152/2 | Jun. 06, 2014 | Jun. 05, 2015 |
| Coaxial Cable | Huber+Suhner | SUCOFLEX 102 | MY 2153/2 | Jun. 06, 2014 | Jun. 05, 2015 |
| Controller | MF | MF-7802 | N/A | N.C.R. | N.C.R. |
| Antenna Master | MF | N/A | N/A | N.C.R. | N.C.R. |
| Turn Table | MF | N/A | N/A | N.C.R. | N.C.R. |
| Site VSWR | SGS | 966 Chamber A | SAC-A | Jan. 18, 2014 | Jan. 17, 2015 |
| Test Software | Farad | EZ-EMC | Ver. SGS-03A2 | N.C.R. | N.C.R. |

### 2.5.2 Test Site

SGS Taiwan LTD. Electronics & Communication Laboratory
No.2, Keji 1st Rd., Guishan Township, Taoyuan County, Taiwan333

### 2.5.3 Operating Environment

Temperature : 16 degree C Humidity : 51 %RH
Atmospheric Pressure : 996 mBar

### 2.5.4 Measurement Uncertainty of Radiated Emission

Expanded uncertainty (k=2) of radiated emission measurement is 4.16 dB. (30-1000MHz)
Expanded uncertainty (k=2) of radiated emission measurement is 5.02 dB. (1-6GHz)

### 2.5.5 Measurement Level Calculation

Correction Factor = Antenna Factor + Cable loss- Amplifier Gain
Measurement Level = Reading Level + Correction Factor

## 2.5.6 Measurement Data

### Below 1GHz
### Test mode 1
### Horizontal Polarization

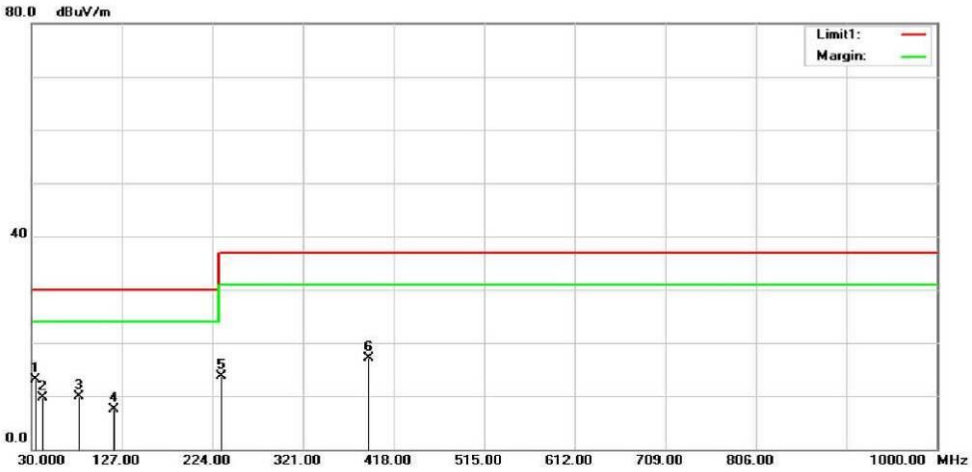
Site SGS 10m Chamber
Limit: CISPR22 Class B 10M Radiation
Mode: R/W (NN-16G-02)
Note:

Polarization: *Horizontal*
Power: From System
Distance:

Temperature: 16 ℃
Humidity: 51 %

**Radiated Emission**

File :C0023 Data :#6 Date: 2014/12/19 Time: 上午 01:45:27




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | * | 33.3700 | 26.83 | -13.63 | 13.20 | 30.00 | -16.80 | QP | |
| 2 | | 40.9700 | 27.60 | -17.90 | 9.70 | 30.00 | -20.30 | QP | |
| 3 | | 81.2500 | 32.86 | -22.96 | 9.90 | 30.00 | -20.10 | QP | |
| 4 | | 117.6500 | 25.85 | -18.25 | 7.60 | 30.00 | -22.40 | QP | |
| 5 | | 233.0600 | 32.74 | -18.94 | 13.80 | 37.00 | -23.20 | QP | |
| 6 | | 391.1400 | 30.45 | -13.25 | 17.20 | 37.00 | -19.80 | QP | |

*:Maximum data x:Over limit !:over margin

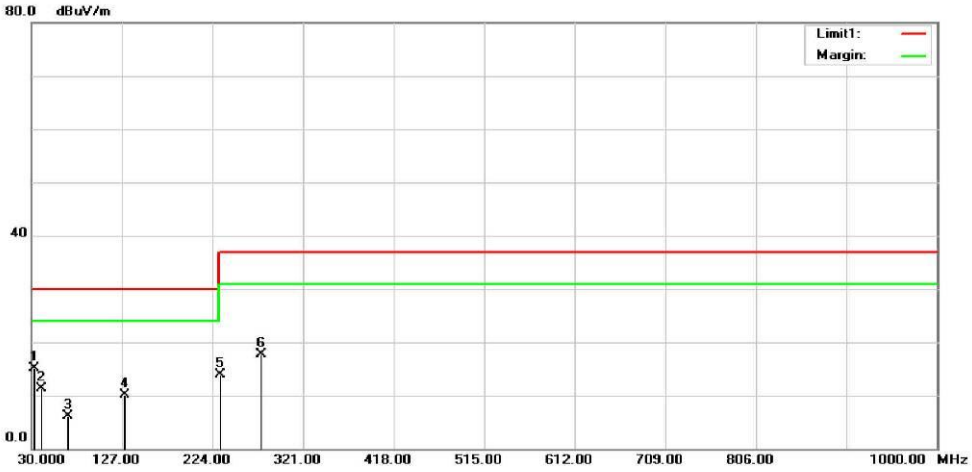
*File :C0023\Data :#6* *Page: 1*

## Vertical Polarization

| | | |
|---|---|---|
| Site SGS 10m Chamber | Polarization: *Vertical* | Temperature: 16 ℃ |
| Limit: CISPR22 Class B 10M Radiation | Power: From System | Humidity: 51 % |
| Mode: R/W (NN-16G-02) | Distance: | |
| Note: | | |

**Radiated Emission**

File :C0023 Data :#5 Date: 2014/12/19 Time: 上午 01:45:23




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | * | 32.2500 | 27.65 | -12.55 | 15.10 | 30.00 | -14.90 | QP | |
| 2 | | 40.2400 | 28.47 | -17.07 | 11.40 | 30.00 | -18.60 | QP | |
| 3 | | 69.3200 | 29.80 | -23.60 | 6.20 | 30.00 | -23.80 | QP | |
| 4 | | 129.3600 | 27.49 | -17.39 | 10.10 | 30.00 | -19.90 | QP | |
| 5 | | 232.3600 | 32.16 | -18.26 | 13.90 | 37.00 | -23.10 | QP | |
| 6 | | 276.0200 | 33.36 | -15.56 | 17.80 | 37.00 | -19.20 | QP | |

*:Maximum data x:Over limit !:over margin

*File :C0023\Data :#5* *Page: 1*

## Test mode 2
## Horizontal Polarization

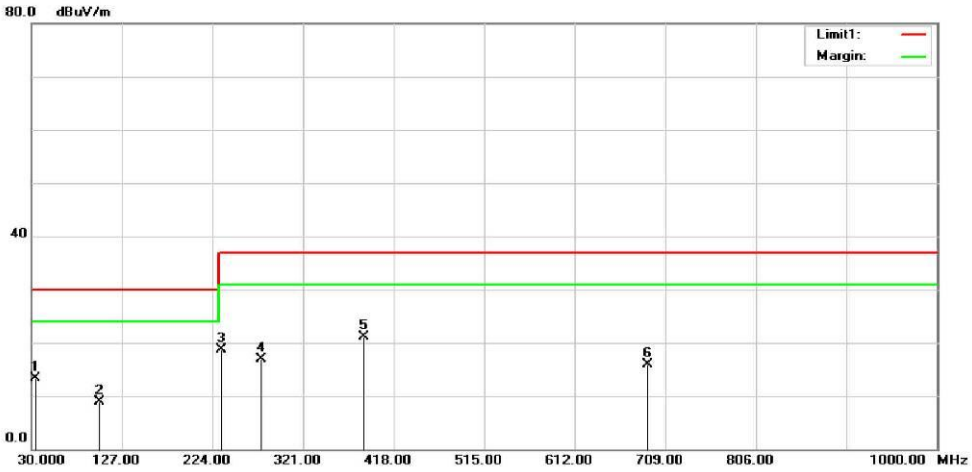
Site SGS 10m Chamber
Limit: CISPR22 Class B 10M Radiation
Mode: WLAN Communication (RS-16G-01)
Note:

Polarization: *Horizontal*
Power: From System
Distance:

Temperature: 16 ℃
Humidity: 51 %

**Radiated Emission**

File :C0023 Data :#8 Date: 2014/12/19 Time: 上午 02:04:11




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | | 33.5800 | 27.14 | -13.74 | 13.40 | 30.00 | -16.60 | QP | |
| 2 | | 101.7900 | 28.34 | -19.44 | 8.90 | 30.00 | -21.10 | QP | |
| 3 | | 233.1900 | 37.72 | -18.92 | 18.80 | 37.00 | -18.20 | QP | |
| 4 | | 276.1800 | 33.39 | -16.49 | 16.90 | 37.00 | -20.10 | QP | |
| 5 | * | 385.1200 | 34.53 | -13.43 | 21.10 | 37.00 | -15.90 | QP | |
| 6 | | 689.9200 | 24.52 | -8.62 | 15.90 | 37.00 | -21.10 | QP | |

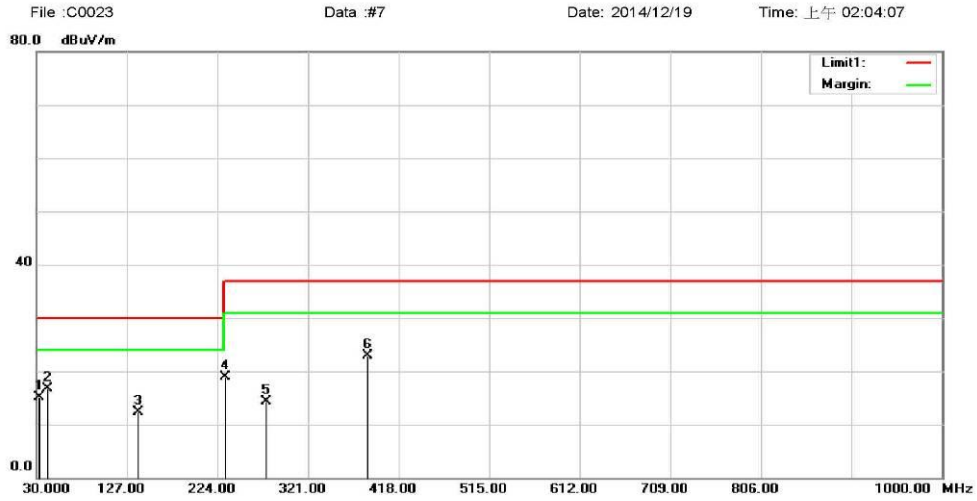
*:Maximum data x:Over limit !:over margin

*File :C0023\Data :#8* *Page: 1*

## Vertical Polarization

| | | |
|---|---|---|
| Site SGS 10m Chamber | Polarization: *Vertical* | Temperature: 16 ℃ |
| Limit: CISPR22 Class B 10M Radiation | Power: From System | Humidity: 51 % |
| Mode: WLAN Communication (RS-16G-01) | Distance: | |
| Note: | | |

**Radiated Emission**




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | | 32.2000 | 27.62 | -12.52 | 15.10 | 30.00 | -14.90 | QP | |
| 2 | * | 40.7300 | 34.04 | -17.34 | 16.70 | 30.00 | -13.30 | QP | |
| 3 | | 138.0300 | 30.05 | -17.75 | 12.30 | 30.00 | -17.70 | QP | |
| 4 | | 232.6600 | 37.12 | -18.22 | 18.90 | 37.00 | -18.10 | QP | |
| 5 | | 275.7900 | 29.96 | -15.56 | 14.40 | 37.00 | -22.60 | QP | |
| 6 | | 385.0000 | 35.42 | -12.52 | 22.90 | 37.00 | -14.10 | QP | |

*:Maximum data x:Over limit !:over margin

*File :C0023\Data :#7* *Page: 1*

## Above 1GHz
## Test mode 1
## Horizontal Polarization

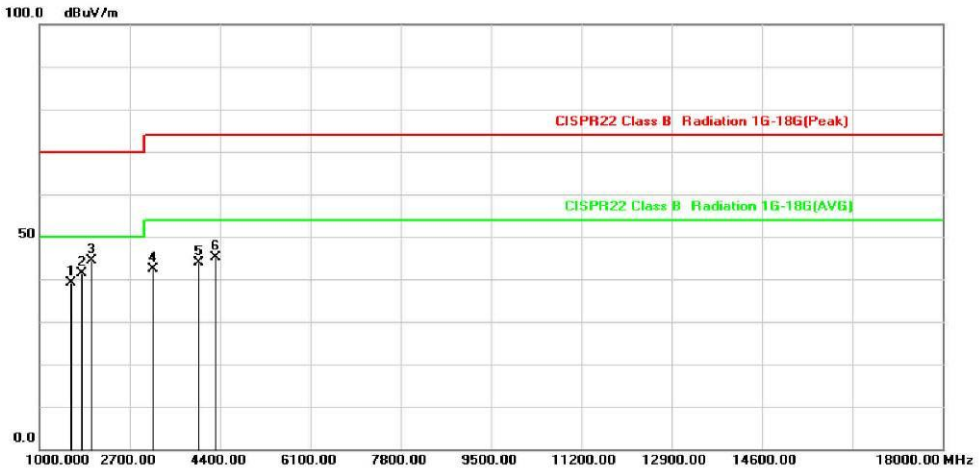
Site SGS 966 Chamber A
Limit: CISPR22 Class B Radiation 1G-18G(Peak)
Mode: RW (NN-16G-02)
Note:

Polarization: *Horizontal*
Power: From System
Distance:

Temperature: 23 ℃
Humidity: 56 %

### Radiated Emission

File :E1-2014-C0023 Data :#10 Date: 2014/12/19 Time: 上午 09:06:24




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | | 1595.000 | 60.74 | -21.59 | 39.15 | 70.00 | -30.85 | peak | |
| 2 | | 1799.000 | 62.27 | -20.80 | 41.47 | 70.00 | -28.53 | peak | |
| 3 | * | 1986.000 | 64.35 | -20.07 | 44.28 | 70.00 | -25.72 | peak | |
| 4 | | 3142.000 | 58.89 | -16.51 | 42.38 | 74.00 | -31.62 | peak | |
| 5 | | 4009.000 | 58.66 | -14.73 | 43.93 | 74.00 | -30.07 | peak | |
| 6 | | 4315.000 | 59.03 | -13.88 | 45.15 | 74.00 | -28.85 | peak | |

*:Maximum data x:Over limit !:over margin

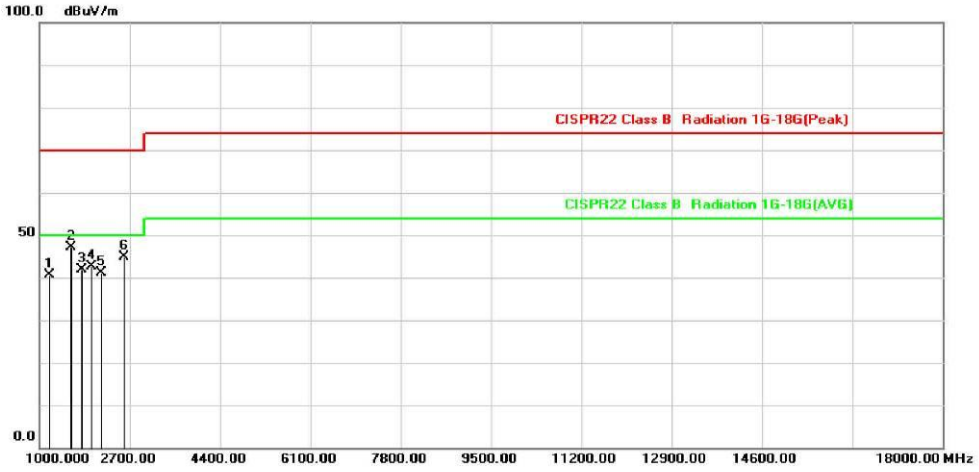
*File :E1-2014-C0023\Data :#10* *Page: 1*

## Vertical Polarization

| | | |
|---|---|---|
| Site SGS 966 Chamber A | Polarization: *Vertical* | Temperature: 23 ℃ |
| Limit: CISPR22 Class B Radiation 1G-18G(Peak) | Power: From System | Humidity: 56 % |
| Mode: RW (NN-16G-02) | Distance: | |
| Note: | | |

**Radiated Emission**

File :E1-2014-C0023 Data :#9 Date: 2014/12/19 Time: 上午 09:02:13




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | | 1187.000 | 64.22 | -23.62 | 40.60 | 70.00 | -29.40 | peak | |
| 2 | * | 1595.000 | 68.80 | -21.59 | 47.21 | 70.00 | -22.79 | peak | |
| 3 | | 1799.000 | 62.60 | -20.80 | 41.80 | 70.00 | -28.20 | peak | |
| 4 | | 1986.000 | 62.61 | -20.07 | 42.54 | 70.00 | -27.46 | peak | |
| 5 | | 2156.000 | 60.50 | -19.27 | 41.23 | 70.00 | -28.77 | peak | |
| 6 | | 2598.000 | 62.26 | -17.48 | 44.78 | 70.00 | -25.22 | peak | |

*:Maximum data x:Over limit !:over margin

*File :E1-2014-C0023\Data :#9* *Page: 1*

## Test mode 2
## Horizontal Polarization

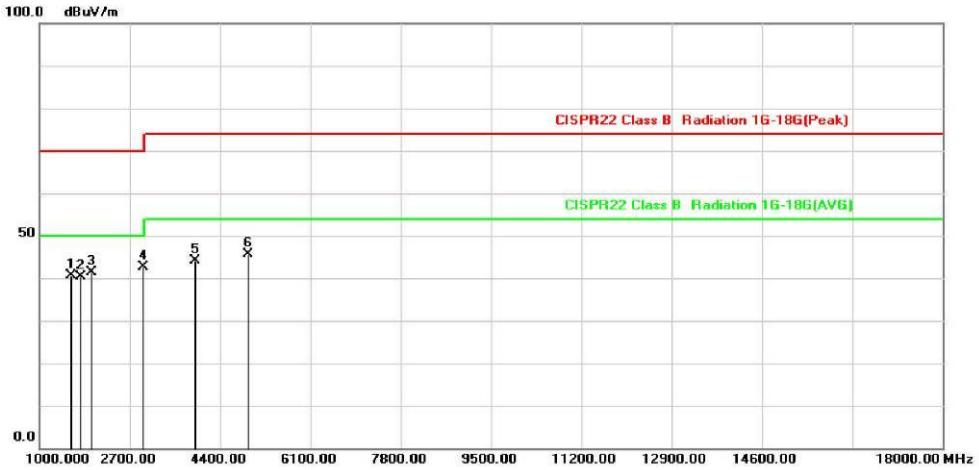
Site SGS 966 Chamber A
Limit: CISPR22 Class B Radiation 1G-18G(Peak)
Mode: WLAN Communication (RS-16G-01)
Note:

Polarization: *Horizontal*
Power: From System
Distance:

Temperature: 23 ℃
Humidity: 56 %

**Radiated Emission**

File :E1-2014-C0023 Data :#12 Date: 2014/12/19 Time: 上午 09:19:01




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | | 1595.000 | 62.18 | -21.59 | 40.59 | 70.00 | -29.41 | peak | |
| 2 | | 1782.000 | 61.36 | -20.86 | 40.50 | 70.00 | -29.50 | peak | |
| 3 | | 1986.000 | 61.55 | -20.07 | 41.48 | 70.00 | -28.52 | peak | |
| 4 | * | 2955.000 | 59.34 | -16.83 | 42.51 | 70.00 | -27.49 | peak | |
| 5 | | 3924.000 | 59.01 | -14.93 | 44.08 | 74.00 | -29.92 | peak | |
| 6 | | 4944.000 | 57.80 | -12.10 | 45.70 | 74.00 | -28.30 | peak | |

*:Maximum data x:Over limit !:over margin

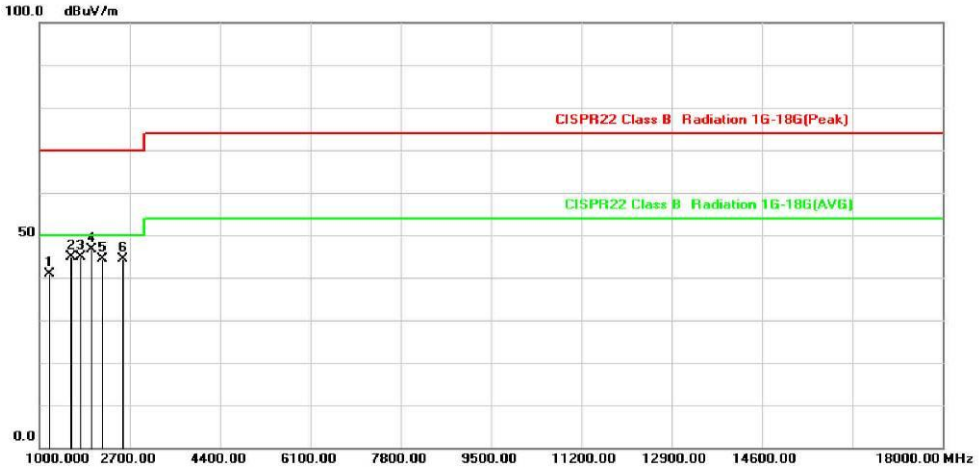
*File :E1-2014-C0023\Data :#12* *Page: 1*

## Vertical Polarization

| | | |
|---|---|---|
| Site SGS 966 Chamber A | Polarization: *Vertical* | Temperature: 23 ℃ |
| Limit: CISPR22 Class B Radiation 1G-18G(Peak) | Power: From System | Humidity: 56 % |
| Mode: WLAN Communication (RS-16G-01) | Distance: | |
| Note: | | |

**Radiated Emission**

File :E1-2014-C0023 Data :#11 Date: 2014/12/19 Time: 上午 09:14:38




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | | 1187.000 | 64.54 | -23.62 | 40.92 | 70.00 | -29.08 | peak | |
| 2 | | 1595.000 | 66.49 | -21.59 | 44.90 | 70.00 | -25.10 | peak | |
| 3 | | 1782.000 | 65.85 | -20.86 | 44.99 | 70.00 | -25.01 | peak | |
| 4 | * | 1986.987 | 66.72 | -20.05 | 46.67 | 70.00 | -23.33 | peak | |
| 5 | | 2190.000 | 63.38 | -19.10 | 44.28 | 70.00 | -25.72 | peak | |
| 6 | | 2581.000 | 61.97 | -17.52 | 44.45 | 70.00 | -25.55 | peak | |

*:Maximum data x:Over limit !:over margin

*File :E1-2014-C0023\Data :#11* *Page: 1*