# EMC TEST REPORT

| | | | |
|---|---|---|---|
| **Project No.** | LBE073695 | **Revision No.** | None |
| **Applicant** | **Name of organization** | **Samsung Electronics Co., Ltd.** | |
| | **Address** | 416 Maetan 3-Dong, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do 443-742 Korea | |
| | **Date of application** | 2007.11.29 | |
| **EUT** Equipment Under Test | **Type of device** | Class B personal computers and peripherals | |
| | **Equipment authorization** | ☐ Declaration of Conformity ☒ Certification ☐ Verification | |
| | **FCC ID** | **A3LSCX4300** | |
| | **Kind of product** | **Printer** | |
| | **Model No.** | **SCX-4300** | |
| | | **Variant Model No.** | SCX-4300R |
| | **Manufacturer** | **Samsung Electronics (Shandong) Digital Printing Co., Ltd.** 264209, Samsung Road, Weihai Hi-Tech. IDZ, Shandong Province, P.R.China | |
| **Applied Standards** | | FCC Part 15, Subpart B / ANSI C63.4-2003 | |
| **Issue date** | | 2007.12.07 | |

**Test result** : **Complied**

The equipment under test has found to be compliant with the applied standards.
(Refer to the attached test result for more detail.)

**Tested by** : Young Ju, Ryu

Y. J. Ryu

**Reviewed by** : No Cheon, Park

N. C. Park

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SAMSUNG

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# 1. Summary of test results

## 1.1 Emission

The EUT has been tested according to the following specifications:

| Applied | Test type | Applied standard | Result | Remarks |
|---|---|---|---|---|
| ☒ | Conducted Disturbance | FCC Part 15 Subpart B | Complied | Meets Class B Limit<br>Minimum margin is<br>17.4 dB at 28.004 MHz |
| ☒ | Radiated Disturbance | | Complied | Meets Class B Limit<br>Minimum margin is<br>7.0 dB at 48.397 MHz |

# 2. General Information

## 2.1 Test facility

The SEC EMC Laboratory is located on Samsung Electronics Co., Ltd. at 416 Maetan 3-Dong, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do, South Korea.
All testing are performed in Semi-anechoic chambers conforming to the site attenuation Characteristics defined by ANSI C63.4, CISPR 22, 16-1 and 16-2. and Shielded rooms.

The SEC EMC Laboratory is operated as testing laboratory in accordance with the requirements of ISO/IEC 17025:2005.

## 2.2 Accreditation and listing

| Laboratory Qualifications | | Remarks |
|---|---|---|
| | KOLAS(Korea Laboratory Accreditation Scheme) | Accredited : 124 |
| | Radio Research Laboratory | Accredited : KR0004 |
| | FCC(Federal Communications Commission) | Accredited : KR0004 |
| | National Voluntary Laboratory Accreditation Program | Lab Code: 200623-0 |
| | Norges Elektriske Materiellkontroll | Accredited : ELA 195 |
| | VCCI (Voluntary Control Council for Interference by Information Technology Equipment) | C-2421,R-2224 |
| | China Quality Certification Center | 5-053, 5-054 |
| | TUV Rhineland | H9354285 |
| | GOST(GOSTSTANDART) | ROSTEST |
| | Elektrotechnicky Zkusebni Ustav | Reg. No.: 001 |
| | IC(Industry Canada) | Assigned Code: 5871 |

# 3. Test Setup configuration

## 3.1 Test Peripherals

The following is a listing of the EUT and peripherals utilized during the performance of EMC test:

| Description | Model No. | Serial No. | Manufacturer | FCC ID |
|---|---|---|---|---|
| Printer | SCX-4300 | - | Samsung | A3LSCX4300 |
| Note PC | NP-Q20 | KRBA5901278A00C F43M00MH | Samsung | A3LNPQ20 |
| AC Adapter | AD-4212A | CNBA44XXXXXXSE 3831L0241 | Dongguan Samsung Electro-Mechanics | - |
| USB Mouse | M-UAE96 | LZK61923406 | Logitech | DoC |
| Earphone | - | - | COSY | - |

## 3.2 EUT operating mode

To achieve compliance applied standard specification, the following mode(s) were made during compliance testing:

| | |
|---|---|
| **Operating Mode 1** | USB Printing |
| **Operating Mode 2** | 1:99 Copy |
| **Operating Mode 3** | Standby |

## 3.3 Details of Sampling

Customer selected, single unit.

## 3.4 Used cable description

The EUT is configured, installed, arranged and operated in a manner consistent with typical applications. Interface cables/loads/devices are connected to at least one of each type of interface port of the EUT, and where practical, each cable shall be terminated in a device typical of actual usage. The type(s) of interconnecting cables to be used and the interface port (of the EUT) to which these were connected;

| Connected cable | Length [m] | Shielded [Y/N] | Note |
|---|---|---|---|
| Power | 1.8 | No | - |
| USB | 1.8 | Yes | From PC to EUT<br>From PC to Mouse |
| Audio | 1.0 | No | From earphone to PC |

## 3.5 EUT Description

The following features describe EUT represented by this report:

| Item | Specification | Remarks |
|---|---|---|
| **Processor** | CHROUS2(ARM7TDMI, 66MHz) | - |
| **Standard System memory** | 8MB SDRAM | - |
| **Resolution** | 600x600dpi | - |
| **Copy Quality mode** | TEXT:600x300dpi<br>TEXT/PHOTO:600x300dpi<br>PHOTO:600x600dpi | - |
| **Paper Handling** | Paper Tray(standard) 150 Sheets<br>2nd Tray(optional) : NA<br>Bypass Tray : NA | - |
| **Power Rating** | 110~127 VAC, 4.0A, 50/60 Hz | - |
| **Power Consumption** | Power save mode : Less than 10Watts<br>Stand by mode : 70Watts<br>Average : 350Watts | - |
| **Printer Language** | SPL | - |
| **Interfaces** | USB2.0 | - |
| **OS compatibility** | Windows 2000 / XP / 2003 / Vista<br>Various Linux OS<br>Mac OS 10.3~10.4 | - |
| **Modes of Operation** | USB Printing | - |
| **Intended Class for Emissions** | Class B | - |

## 3.6 Clock Frequencies

| Kind of Clocks | Frequency[MHz] | Kind of Clocks | Frequency[MHz] |
|---|---|---|---|
| Main Source | 10 | Video | 16.59 |
| CPU Internal | 66 | SDRAM | 66 |
| USB Device | 12 | | |

## 3.7 Operating mode condition

The system was configured for testing in typical fashion use. Cables were attached to each of the available I/O Ports. Where applicable, peripherals were attached to the I/O cables. The mode of operation utilized for testing was selected to best simulate typical EUT use. The EUT is supporting the USB, copy and standby mode.

**- Test Voltage : AC 120 V, 60 Hz**

## 3.8 Measurement uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus: (According to CISPR 16-4 and UKAS Lab 34.)

### 3.8.1 Emission

| Test type | | Measurement uncertainty (C.L. 95 %, k = 2) |
|---|---|---|
| Conducted disturbance | Mains Port | ± 2.8 dB |
| Radiated disturbance | Horizontal | ± 5.1 dB |
| | Vertical | ± 5.09 dB |

# 4. Results of individual test

## 4.1 Conducted disturbance

Both conducted lines are measured in Quasi-Peak and Average mode, including the worst-case data points for each tested configuration.
The EUT measured in accordance with the methods described in standards.

**Limits for conducted disturbance at mains ports of class A**

| Frequency range Limits MHz | Limits dB(μV) | |
|---|---|---|
| | Quasi-peak | Average |
| 0,15 to 0,50 | 79 | 66 |
| 0,50 to 30 | 73 | 60 |
| Note 1: 1 μV is regarded as 0 dB.<br>Note 2: If the average limit is met in the measurement with quasi-peak detector, the measurement with average detector at the same frequency is unnecessary.<br>Note 3: The lower limit shall apply at the transition frequency. | | |

**Limits for conducted disturbance at the mains ports of class B**

| Frequency range Limits MHz | Limits dB(μV) | |
|---|---|---|
| | Quasi-peak | Average |
| 0,15 to 0,50 | 66 to 56 | 56 to 46 |
| 0,50 to 5 | 56 | 46 |
| 5 to 30 | 60 | 50 |
| Note 1: 1 μV is regarded as 0 dB.<br>Note 2: The limits shall decreases linearly with the logarithm of the frequency in the range 150 - 500 kHz.<br>Note 3: If the average limit is met in the measurement with quasi-peak detector, the measurement with average detector is unnecessary.<br>Note 4: The lower limit shall apply at the transition frequency. | | |

## 4.1.1 Test instrumentation

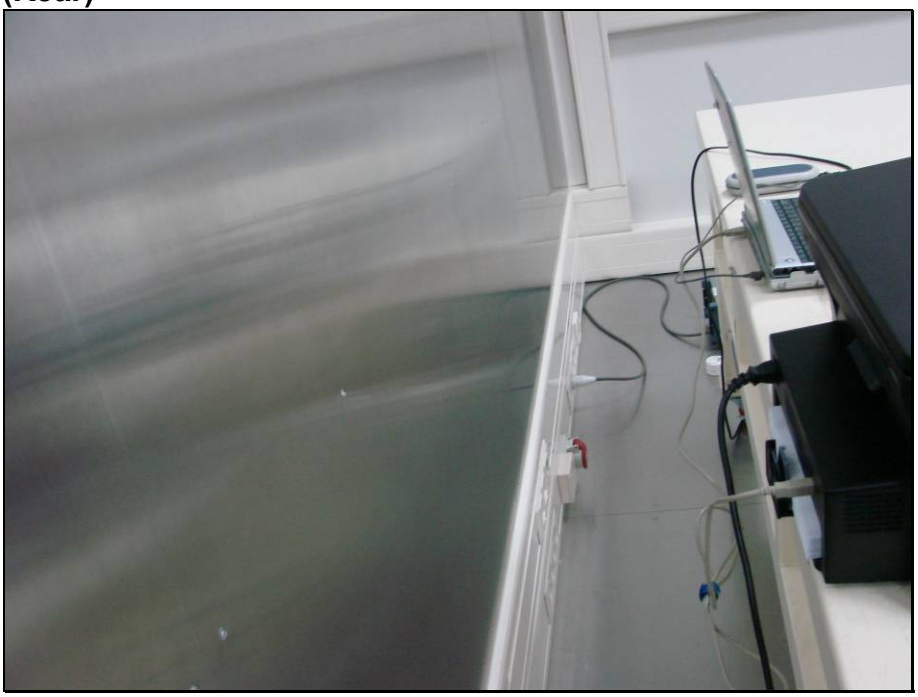
Test instrumentation used in the Conducted disturbance test was as follows:

| Test instrumentation | Model name | Manufacturer | Serial or Firmware (No./Ver.) | Calibration | |
|---|---|---|---|---|---|
| | | | | Date | Interval (Month) |
| Test Software | EMC 32 | R&S | Ver 5.20.2 | N/A | N/A |
| Measuring receiver | ESCI | R&S | 100368 | 2007-06-01 | 12 |
| Artificial mains network | ENV216 | R&S | 100117 | 2007-09-03 | 12 |
| Artificial mains network | ESH3-Z5 | R&S | 100262 | 2007-09-03 | 12 |

## 4.1.2 Photograph of the test Configuration

**(Front)**

**(Rear)**



## 4.1.3 Test results

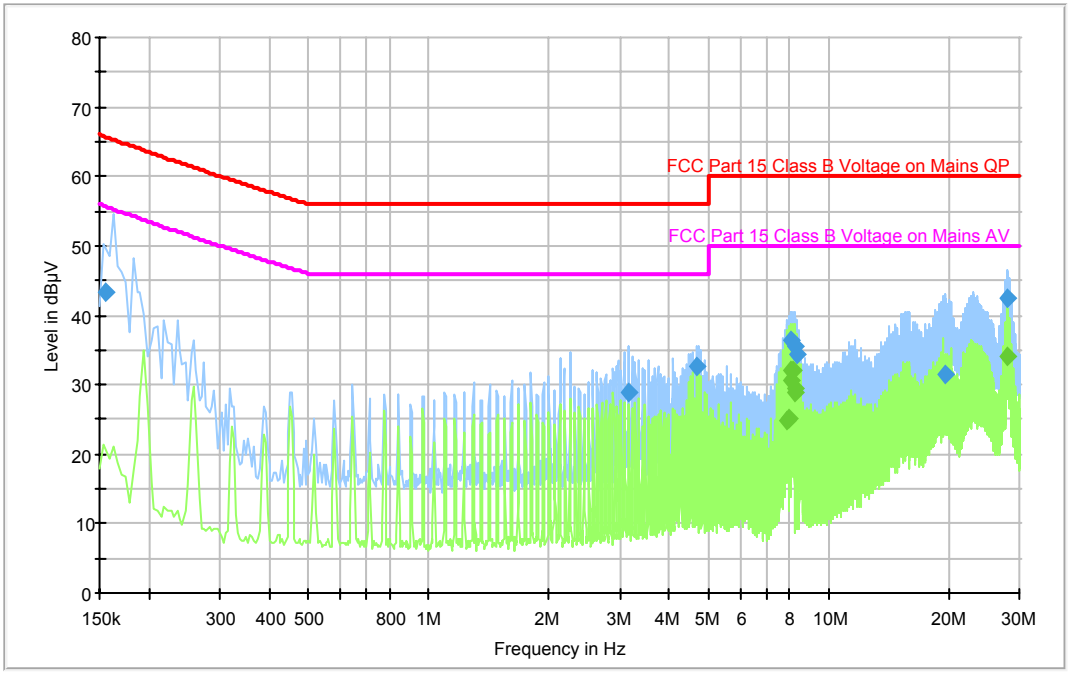
| | | | | |
|---|---|---|---|---|
| **Operating condition** | USB Printing | | | |
| **Test date** | 2007-12-03 | **Test engineer** | Young Ju, Ryu | |
| **Climate condition** | **Ambient temperature** | 24.1 ℃ | **Relative humidity** | 32 % |
| | **Atmospheric pressure** | 101.9 kPa | | |
| **Test place** | Shielded room #1 | | | |
| **Note** | * QP : Quasi-peak, AV: Average<br>* Level (QP or AV) = Meter Reading(QP or AV) + Corr.(LISN Insertion loss + Cable loss)<br>* Margin = Limit - Level | | | |

## Scan Setup: FCC Part 15 Class_B with ENV 2-Line-LISN fin [EMI conducted]

Hardware Setup: Voltage with ENV 2-Line-LISN
Level Unit: dB $\mu$ V

| Subrange | Detectors | IF Bandwidth | Meas. Time | Receiver |
|---|---|---|---|---|
| 150kHz - 30MHz | QuasiPeak; Average | 9kHz | 15s | ESCI 3 |

## FCC Part 15 Class_B with ENV 2-Line-LISN



## Final Measurement Detector 1

| Frequency (MHz) | QuasiPeak (dB μ V) | Line | Corr. (dB) | Margin (dB) | Limit (dB μ V) |
|---|---|---|---|---|---|
| 0.154 500 | 43.2 | N | 9.6 | 22.5 | 65.7 |
| 3.148 500 | 29.0 | L1 | 9.8 | 27.0 | 56.0 |
| 4.656 500 | 32.7 | L1 | 9.8 | 23.3 | 56.0 |
| 8.016 500 | 36.3 | L1 | 9.9 | 23.7 | 60.0 |
| 8.216 500 | 35.4 | N | 9.9 | 24.6 | 60.0 |
| 8.344 500 | 34.4 | N | 9.9 | 25.6 | 60.0 |
| 19.472 500 | 31.4 | N | 10.2 | 28.6 | 60.0 |
| 28.004 500 | 42.6 | L1 | 10.4 | 17.4 | 60.0 |

## Final Measurement Detector 2

| Frequency (MHz) | Average (dB μ V) | Line | Corr. (dB) | Margin (dB) | Limit (dB μ V) |
|---|---|---|---|---|---|
| 7.896 500 | 25.0 | L1 | 9.9 | 25.0 | 50.0 |
| 7.960 500 | 25.0 | N | 9.9 | 25.0 | 50.0 |
| 8.020 500 | 32.2 | L1 | 9.9 | 17.8 | 50.0 |
| 8.084 500 | 30.5 | N | 9.9 | 19.5 | 50.0 |
| 8.148 500 | 32.0 | L1 | 9.9 | 18.0 | 50.0 |
| 8.212 500 | 28.8 | N | 9.9 | 21.2 | 50.0 |
| 8.276 500 | 29.5 | L1 | 9.9 | 20.5 | 50.0 |
| 28.072 500 | 34.1 | N | 10.4 | 15.9 | 50.0 |

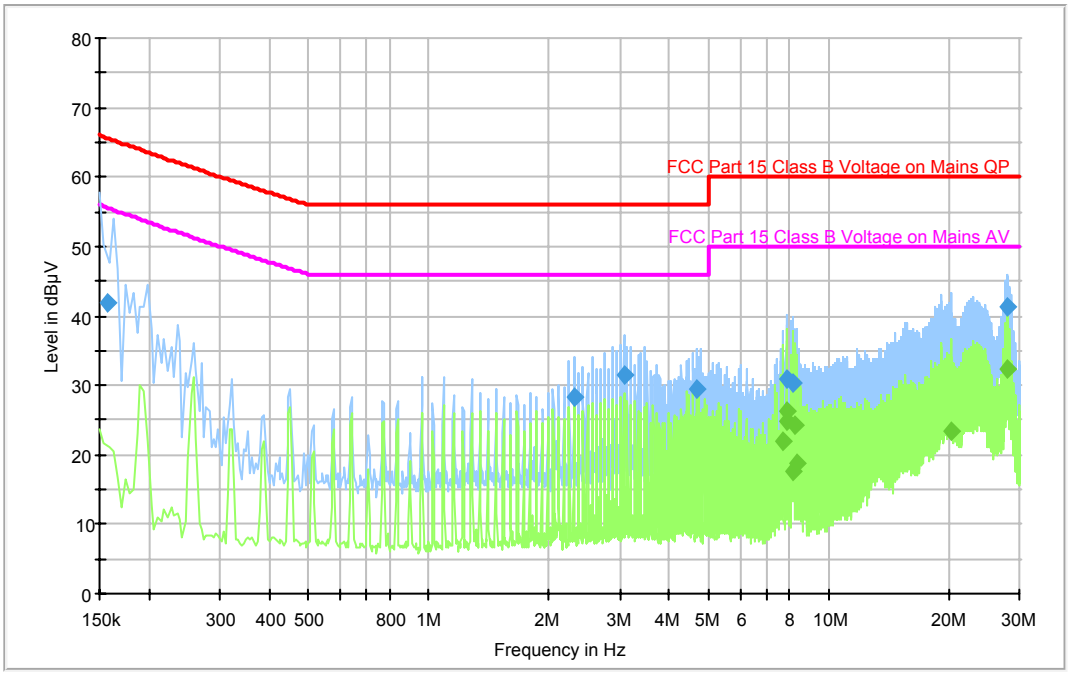
| | | | | |
|---|---|---|---|---|
| **Operating condition** | 1:99 Copy | | | |
| **Test date** | 2007-12-03 | **Test engineer** | Young Ju, Ryu | |
| **Climate condition** | **Ambient temperature** | 24.1 ℃ | **Relative humidity** | 32 % |
| | **Atmospheric pressure** | 101.9 kPa | | |
| **Test place** | Shielded room #1 | | | |
| **Note** | * QP : Quasi-peak, AV: Average<br>* Level (QP or AV) = Meter Reading(QP or AV) + Corr.(LISN Insertion loss + Cable loss)<br>* Margin = Limit - Level | | | |

## Scan Setup: FCC Part 15 Class_B with ENV 2-Line-LISN fin [EMI conducted]

Hardware Setup: Voltage with ENV 2-Line-LISN
Level Unit: dB $\mu$ V

| Subrange | Detectors | IF Bandwidth | Meas. Time | Receiver |
|---|---|---|---|---|
| 150kHz - 30MHz | QuasiPeak; Average | 9kHz | 15s | ESCI 3 |

## FCC Part 15 Class_B with ENV 2-Line-LISN



## Final Measurement Detector 1

| Frequency (MHz) | QuasiPeak (dB μ V) | Line | Corr. (dB) | Margin (dB) | Limit (dB μ V) |
|---|---|---|---|---|---|
| 0.157 500 | 41.9 | N | 9.6 | 23.6 | 65.6 |
| 2.304 500 | 28.4 | L1 | 9.7 | 27.6 | 56.0 |
| 3.072 500 | 31.6 | L1 | 9.8 | 24.4 | 56.0 |
| 4.656 500 | 29.6 | N | 9.8 | 26.4 | 56.0 |
| 7.884 500 | 31.0 | L1 | 9.9 | 29.0 | 60.0 |
| 8.140 500 | 30.3 | L1 | 9.9 | 29.7 | 60.0 |
| 27.876 500 | 41.2 | L1 | 10.4 | 18.8 | 60.0 |

## Final Measurement Detector 2

| Frequency (MHz) | Average (dB μ V) | Line | Corr. (dB) | Margin (dB) | Limit (dB μ V) |
|---|---|---|---|---|---|
| 7.700 500 | 22.1 | L1 | 9.9 | 27.9 | 50.0 |
| 7.824 500 | 26.2 | N | 9.9 | 23.8 | 50.0 |
| 7.888 500 | 24.7 | L1 | 9.9 | 25.3 | 50.0 |
| 8.140 500 | 17.5 | L1 | 9.9 | 32.5 | 50.0 |
| 8.276 500 | 24.3 | N | 9.9 | 25.7 | 50.0 |
| 8.351 500 | 18.8 | L1 | 9.9 | 31.2 | 50.0 |
| 20.284 500 | 23.3 | L1 | 10.2 | 26.7 | 50.0 |
| 27.868 500 | 32.5 | L1 | 10.4 | 17.5 | 50.0 |

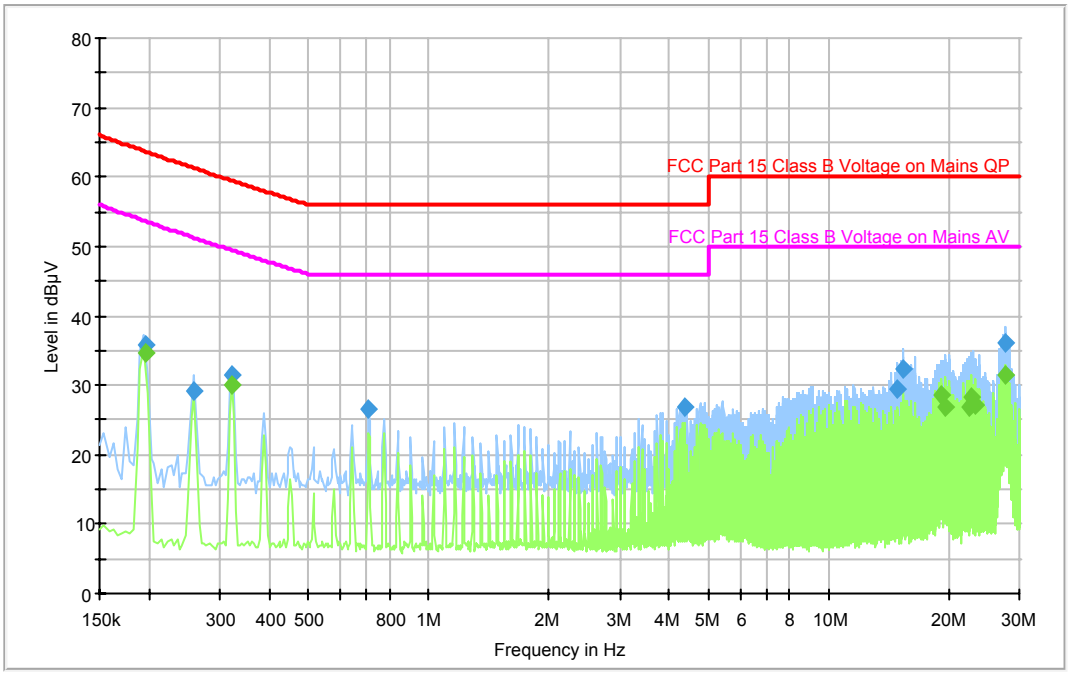
| | | | | |
|---|---|---|---|---|
| **Operating condition** | Standby | | | |
| **Test date** | 2007-12-03 | **Test engineer** | Young Ju, Ryu | |
| **Climate condition** | **Ambient temperature** | 24.1 ℃ | **Relative humidity** | 32 % |
| | **Atmospheric pressure** | 101.9 kPa | | |
| **Test place** | Shielded room #1 | | | |
| **Note** | * QP : Quasi-peak, AV: Average<br>* Level (QP or AV) = Meter Reading(QP or AV) + Corr.(LISN Insertion loss + Cable loss)<br>* Margin = Limit - Level | | | |

## Scan Setup: FCC Part 15 Class_B with ENV 2-Line-LISN fin [EMI conducted]

Hardware Setup: Voltage with ENV 2-Line-LISN
Level Unit: dB $\mu$ V

| Subrange | Detectors | IF Bandwidth | Meas. Time | Receiver |
|---|---|---|---|---|
| 150kHz - 30MHz | QuasiPeak; Average | 9kHz | 15s | ESCI 3 |

## FCC Part 15 Class_B with ENV 2-Line-LISN



## Final Measurement Detector 1

| Frequency (MHz) | QuasiPeak (dB μ V) | Line | Corr. (dB) | Margin (dB) | Limit (dB μ V) |
|---|---|---|---|---|---|
| 0.194 500 | 35.8 | N | 9.6 | 27.9 | 63.7 |
| 0.258 500 | 29.2 | L1 | 9.6 | 32.1 | 61.3 |
| 0.322 500 | 31.5 | L1 | 9.6 | 27.9 | 59.5 |
| 0.706 500 | 26.5 | L1 | 9.7 | 29.5 | 56.0 |
| 4.372 500 | 26.8 | N | 9.8 | 29.2 | 56.0 |
| 14.788 500 | 29.5 | L1 | 10.0 | 30.5 | 60.0 |
| 15.436 500 | 32.4 | N | 10.1 | 27.6 | 60.0 |
| 27.816 500 | 36.1 | L1 | 10.4 | 23.9 | 60.0 |

## Final Measurement Detector 2

| Frequency (MHz) | Average (dB μ V) | Line | Corr. (dB) | Margin (dB) | Limit (dB μ V) |
|---|---|---|---|---|---|
| 0.194 500 | 34.8 | N | 9.6 | 18.9 | 53.7 |
| 0.322 500 | 30.0 | L1 | 9.6 | 19.4 | 49.4 |
| 19.100 500 | 28.5 | L1 | 10.2 | 21.5 | 50.0 |
| 19.484 500 | 26.9 | N | 10.2 | 23.1 | 50.0 |
| 22.380 500 | 26.9 | N | 10.3 | 23.1 | 50.0 |
| 22.636 500 | 28.3 | N | 10.3 | 21.7 | 50.0 |
| 23.148 500 | 27.1 | N | 10.3 | 22.9 | 50.0 |
| 27.556 500 | 31.6 | N | 10.4 | 18.4 | 50.0 |

## 4.2 Radiated disturbance

Of those disturbances above (*L* - 20dB), where *L* is the limit level in logarithmic units, record at least the disturbance levels and the frequencies of the six highest disturbances.
The following data lists the significant emission frequencies, measured levels, correction factors (for antenna and cables), orientation of table, polarization and height of antenna, the corrected reading, the limit, and the amount of margin. All measurements were taken utilizing quasi-peak detection unless stated otherwise. Measurements were performed at an antenna to EUT distance of 10 meters and elevated between 1 and 4 meters. Both vertical and horizontal antenna polarizations were measured.

**Limits for radiated disturbance of ITE at a measuring distance of 10 m**

| Frequency range Limits MHz | Quasi-peak Limits dB dB(μV/m) | |
|---|---|---|
| | Class A | Class B |
| 30 to 230 | 40 | 30 |
| 230 to 1000 | 47 | 37 |
| 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: 1 μV/m is regarded as 0 dB. | | |

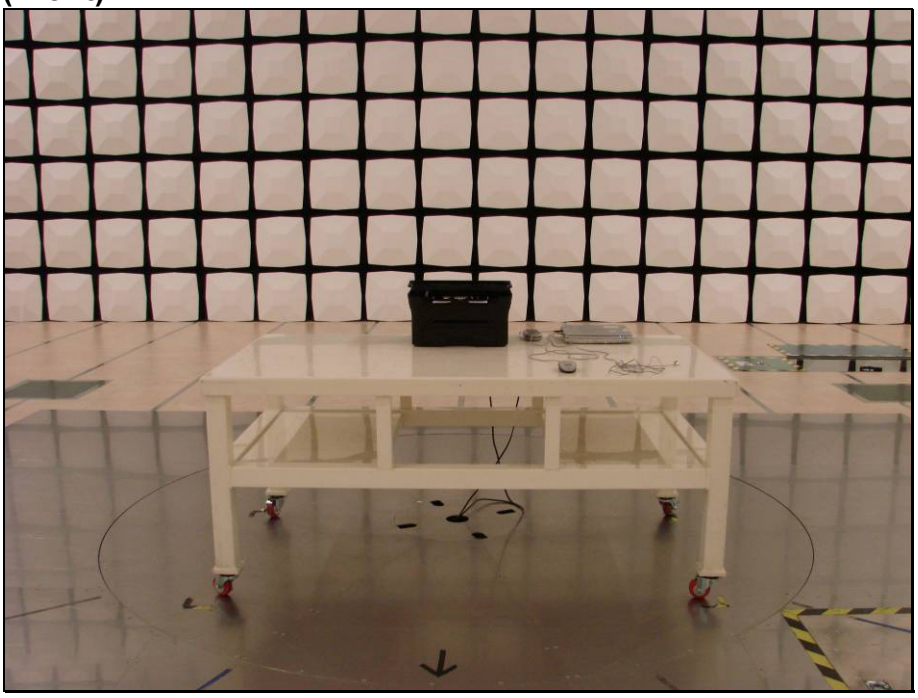
## 4.2.1 Test instrumentation

Test instrumentation used in the Radiated disturbance was as follows:

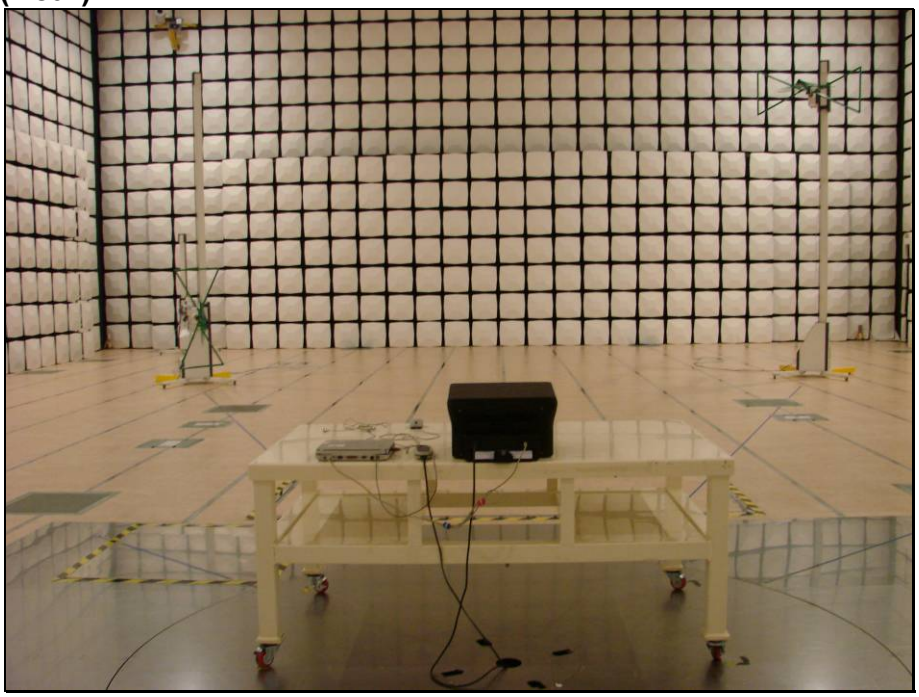
| Test instrumentation | Model name | Manufacturer | Serial or Firmware (No./Ver.) | Calibration | |
|---|---|---|---|---|---|
| | | | | Date | Interval (Month) |
| Bi-con Antenna | CBL6112D | SCHAFFNER | 22602 | 2006-06-26 | 24 |
| Bi-con Antenna | CBL6112D | SCHAFFNER | 22601 | 2007-04-02 | 24 |
| EMI Receiver | ESIB-26 | R&S | 100289 | 2007-03-22 | 12 |
| EMI Receiver | ESIB-26 | R&S | 100287 | 2007-04-10 | 12 |
| AMPLIFIER | 310N | SONOMA | 186467 | 2007-03-17 | 12 |
| AMPLIFIER | 310N | SONOMA | 251673 | 2007-03-17 | 12 |
| Ant Mast | MA4000 | INN CO | - | N/A | N/A |
| Ant Mast | MA4000 | INN CO | - | N/A | N/A |
| Mast Controller | CO2000 | INN CO | - | N/A | N/A |
| Test software | EP5/RE | TOYO | VER 3.1.20 | N/A | N/A |
| RF Selector | NS4900 | TOYO | - | N/A | N/A |

## 4.2.2 Photograph of the test Configuration

**(Front)**

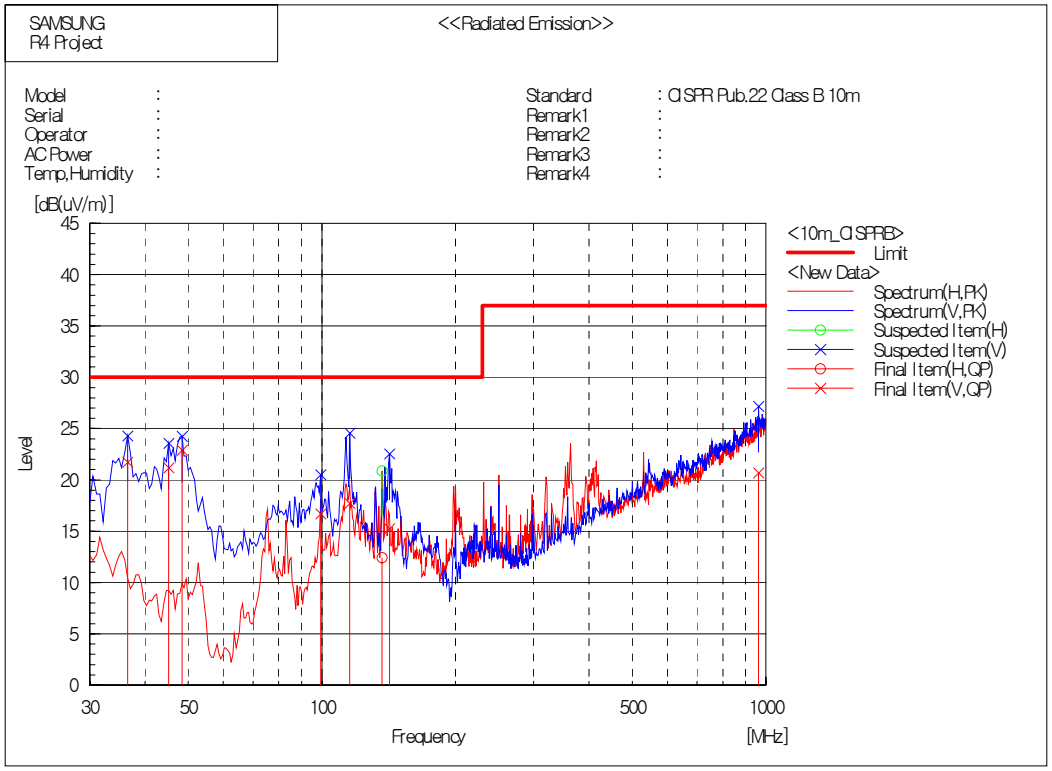


**(Rear)**



## 4.2.3 Test results ( 30 MHz ~ 1 GHz)

| | | | | |
|---|---|---|---|---|
| **Operating condition** | USB Printing | | | |
| **Test date** | 2007-11-29 | **Test engineer** | Young Ju, Ryu | |
| **Climate condition** | **Ambient temperature** | 23.5 ℃ | **Relative humidity** | 36 % |
| | **Atmospheric pressure** | 102.0 kPa | | |
| **Test place** | 10m Semi-Anechoic Chamber #1 | | | |
| **Note** | * Receiving antenna mode : Horizontal, Vertical<br>* Test distance : 10 m (RF Semi Anechoic Chamber)<br>* Result = Reading + c.f (Antenna factor + Cable loss- Amp Gain)<br>* Margin = Limit – Result | | | |




Final Result

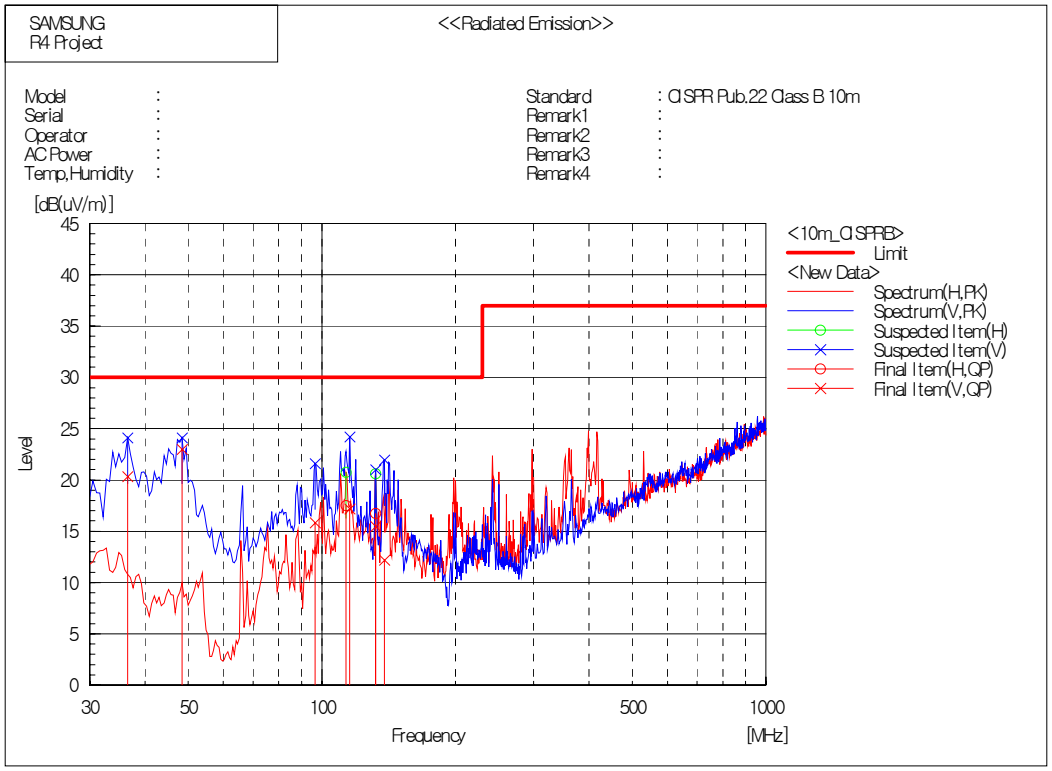
--- Horizontal Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] | Remark |
|---|---|---|---|---|---|---|---|
| 1 | 136.593 | 30.0 | -17.6 | 12.4 | 30.0 | 17.6 | |

--- Vertical Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] | Remark |
|---|---|---|---|---|---|---|---|
| 1 | 36.493 | 38.4 | -16.7 | 21.7 | 30.0 | 8.3 | |
| 2 | 45.150 | 42.4 | -21.2 | 21.2 | 30.0 | 8.8 | |
| 3 | 48.397 | 45.6 | -22.7 | 22.9 | 30.0 | 7.1 | |
| 4 | 99.259 | 36.0 | -19.3 | 16.7 | 30.0 | 13.3 | |
| 5 | 115.491 | 35.8 | -18.0 | 17.8 | 30.0 | 12.2 | |
| 6 | 142.004 | 33.7 | -18.4 | 15.3 | 30.0 | 14.7 | |
| 7 | 963.527 | 22.2 | -1.5 | 20.7 | 37.0 | 16.3 | |

| | | | | |
|---|---|---|---|---|
| **Operating condition** | 1:99 Copy | | | |
| **Test date** | 2007-11-29 | **Test engineer** | Young Ju, Ryu | |
| **Climate condition** | **Ambient temperature** | 23.5 ℃ | **Relative humidity** | 36 % |
| | **Atmospheric pressure** | 102.0 kPa | | |
| **Test place** | 10m Semi-Anechoic Chamber #1 | | | |
| **Note** | * Receiving antenna mode : Horizontal, Vertical<br>* Test distance : 10 m (RF Semi Anechoic Chamber)<br>* Result = Reading + c.f (Antenna factor + Cable loss- Amp Gain)<br>* Margin = Limit – Result | | | |




Final Result

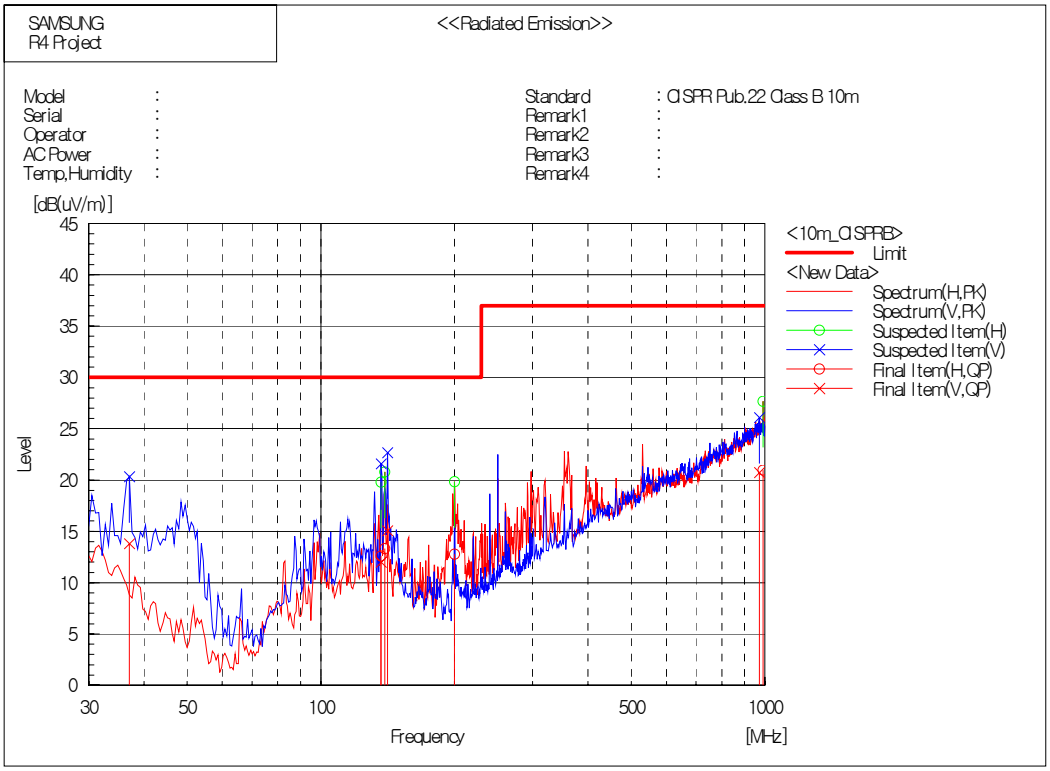
--- Horizontal Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] | Remark |
|---|---|---|---|---|---|---|---|
| 1 | 113.327 | 35.1 | -17.6 | 17.5 | 30.0 | 12.5 | |
| 2 | 132.265 | 34.0 | -17.2 | 16.8 | 30.0 | 13.2 | |

--- Vertical Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] | Remark |
|---|---|---|---|---|---|---|---|
| 1 | 36.493 | 37.0 | -16.7 | 20.3 | 30.0 | 9.7 | |
| 2 | 48.397 | 45.7 | -22.7 | 23.0 | 30.0 | 7.0 | |
| 3 | 96.553 | 35.6 | -19.8 | 15.8 | 30.0 | 14.2 | |
| 4 | 115.491 | 35.2 | -18.0 | 17.2 | 30.0 | 12.8 | |
| 5 | 132.265 | 33.7 | -18.2 | 15.5 | 30.0 | 14.5 | |
| 6 | 138.216 | 30.4 | -18.2 | 12.2 | 30.0 | 17.8 | |

| | | | | |
|---|---|---|---|---|
| **Operating condition** | Standby | | | |
| **Test date** | 2007-11-29 | **Test engineer** | Young Ju, Ryu | |
| **Climate condition** | **Ambient temperature** | 23.5 ℃ | **Relative humidity** | 36 % |
| | **Atmospheric pressure** | 102.0 kPa | | |
| **Test place** | 10m Semi-Anechoic Chamber #1 | | | |
| **Note** | * Receiving antenna mode : Horizontal, Vertical<br>* Test distance : 10 m (RF Semi Anechoic Chamber)<br>* Result = Reading + c.f (Antenna factor + Cable loss- Amp Gain)<br>* Margin = Limit – Result | | | |




Final Result

--- Horizontal Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] | Remark |
|---|---|---|---|---|---|---|---|
| 1 | 136.593 | 30.2 | -17.6 | 12.6 | 30.0 | 17.4 | |
| 2 | 139.299 | 31.2 | -17.9 | 13.3 | 30.0 | 16.7 | |
| 3 | 199.900 | 32.6 | -19.8 | 12.8 | 30.0 | 17.2 | |
| 4 | 991.583 | 22.3 | -1.3 | 21.0 | 37.0 | 16.0 | |

--- Vertical Polarization (QP)---

| No. | Frequency [MHz] | Reading [dB(uV)] | c.f [dB(1/m)] | Result [dB(uV/m)] | Limit [dB(uV/m)] | Margin [dB] | Remark |
|---|---|---|---|---|---|---|---|
| 1 | 37.034 | 30.8 | -17.0 | 13.8 | 30.0 | 16.2 | |
| 2 | 136.593 | 30.1 | -18.1 | 12.0 | 30.0 | 18.0 | |
| 3 | 141.463 | 33.4 | -18.3 | 15.1 | 30.0 | 14.9 | |
| 4 | 971.944 | 22.0 | -1.3 | 20.7 | 37.0 | 16.3 | |

# Appendix – EUT photography

## Front View


## Rear View

# Label Location

# Label