



Product Service

FCC - TEST REPORT

Report Number : **68.760.12.104.01** Date of Issue: 18 June 2012

Model : **SSD**

Product Type : SATA-II Normal Solid State Disk

Applicant : Shenzhen KingSpec Electronics Technology Co., Ltd.

Address : 3rd/F., Block 4, Tongfuyu Ind. Park, Tanglang, Xili, Nanshan,
518055 Shenzhen, PEOPLE'S REPUBLIC OF CHINA

Production Facility : Shenzhen KingSpec Electronics Technology Co., Ltd.

Address : 3rd/F., Block 4, Tongfuyu Ind. Park, Tanglang, Xili, Nanshan,
518055 Shenzhen, PEOPLE'S REPUBLIC OF CHINA

Importer Information : Shenzhen KingDisk Century Technology CO.,Ltd.

Address : Room1216,Qiurui Building, Minkang Road, Minzhi Street, Baoan
Dist, Shenzhen, China

Test Result : **Positive** **Negative**

Total pages including Appendices : 16

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1 Table of Contents

| | | |
|---|--|----|
| 1 | Table of Contents..... | 2 |
| 2 | Details about the Test Laboratory..... | 3 |
| 3 | Description of the Equipment Under Test..... | 4 |
| 4 | Summary of Test Standards..... | 5 |
| 5 | Summary of Test Results..... | 6 |
| 6 | General Remarks..... | 7 |
| 7 | Emission Test Results..... | 8 |
| | 7.1 Radiated Emission Test..... | 8 |
| | 7.2 Conducted Emission Test..... | 13 |
| 8 | System Measurement Uncertainty..... | 16 |



2 Details about the Test Laboratory

Details about the Test Laboratory

Location 1: Jiangsu TÜV Product Service Ltd. – Shenzhen Branch
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Fax: 86-755-2663 2877



3 Description of the Equipment Under Test

Description of the Equipment Under Test

Product: SATA-II Normal Solid State Disk

Model no.: SSD

Trade Mark:



Serial number: NIL

Options and accessories: NIL

Rated Input: 5.0V ($\pm 5\%$)

Rated Output: NIL

Rated Power: 2.0W

Description of the EUT: ITE Device

Auxiliary Equipment Used during Test:

| DESCRIPTION | MANUFACTURER | MODEL NO.(SHIELD) | S/N(LENGTH) |
|--------------|--------------|-------------------|--------------------------|
| LCD Monitor | DELL | 1907FPt | CN-009759-71618-6AP-ACPP |
| USB Mouse | FUJITSU | M-U0002-FSC1 | S26381-K426-V102 |
| USB Keyboard | Lenovo | KU-0225 | 19402 |
| PC | HP | COMPOQ | |



4 Summary of Test Standards

| Test Standards | |
|---|-------------------------|
| FCC Part 15 Subpart B, 10-1-2011 Edition | Unintentional Radiators |



5 Summary of Test Results

| Emission Tests | | | | | |
|---|-------|-------------------------------------|--------------------------|--------------------------|---------------|
| FCC Part 15 Subpart B | | | | | |
| Test Condition | Pages | Test Result | | | Test Location |
| | | Pass | Fail | N/A | |
| Radiated Emission 30MHz to 18GHz | 8 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Location 2 |
| Conducted Emission on AC 150kHz to 30MHz | 13 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Location 2 |



6 General Remarks

Remarks:

This submittal(s) (test report) is intended for FCC ID: OFTSATA-IINORMAL complies with Section 15.107, 15.109, of the FCC Part 15, Subpart B Rules.

Summary:

All tests according to the regulations cited on page 5 were

- Performed

- **Not** Performed

The Equipment Under Test

- **Fulfills** the general approval requirements.

- **Does not** fulfill the general approval requirements.

Sample Received Date: 24 May 2012

Testing Start Date: 29 May 2012

Testing End Date: 6 June 2012

- Jiangsu TÜV Product Service Ltd. – Shenzhen Branch -

Reviewed by:

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EMC Project Manager

Prepared by:

Cookies Bu
EMC Project Engineer

Tested by:

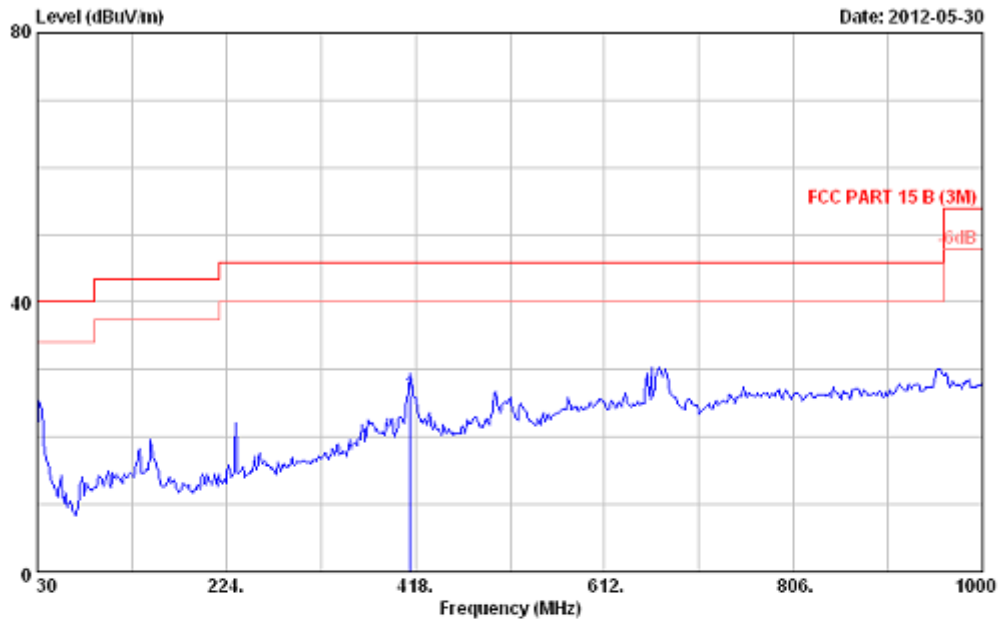
Jolly Xu
EMC Test Engineer



7 Emission Test Results

7.1 Radiated Emission Test 30MHz – 18GHz

M/N : SSD
 Operating Condition : Data transmitting
 Test Specification : Vertical, 30MHz-1GHz
 Comment : DC 5.0V from PC Input AC 120V/60Hz



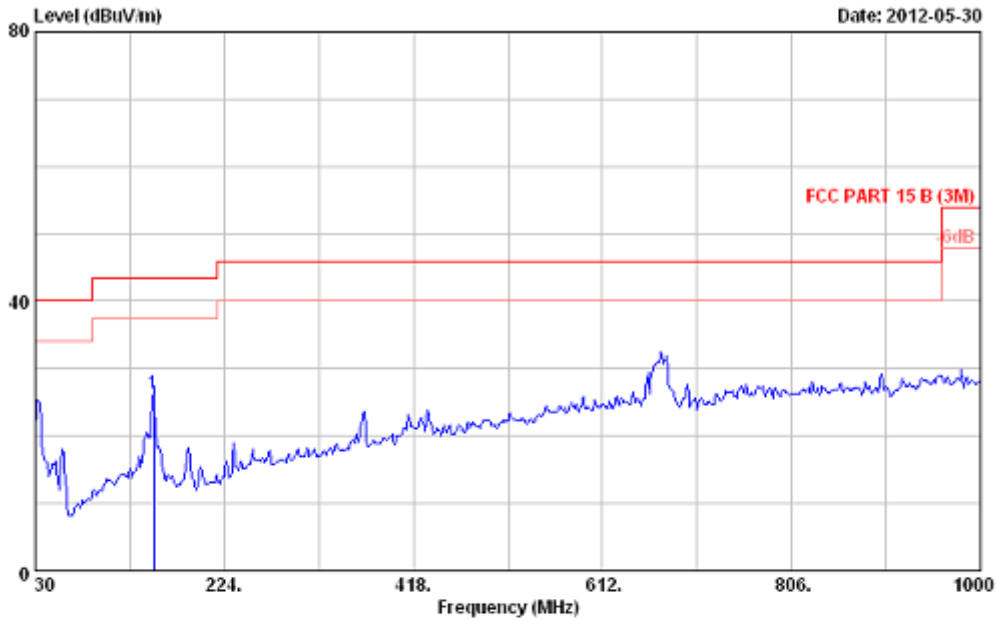
Site no. : 3m Chamber
 Dis. / Ant. : 3m 2010 CBL6111C 2598
 Limit : FCC PART 15 B (3M)
 Env. / Ins. : 24°C/56%
 EUT : SAT&-II Normal M/N:SSD
 Power Rating : AC 120V/60Hz
 Test Mode : Data Transmitting
 Data no. : 16
 Ant. pol. : VERTICAL
 Engineer : Jolly_Xu

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dBuV) | Reading (dBuV/m) | Emission Level (dBuV/m) | Limits (dB) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-------------------|------------------|-------------------------|-------------|-------------|--------|
| 1 | 413.150 | 16.65 | 1.50 | 0.00 | 8.21 | 26.36 | 46.00 | 19.64 | QP |

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor
 2. The emission levels that are 20dB below the official limit are not reported.

Radiated Emission Test 30MHz – 18GHz

M/N : SSD
 Operating Condition : Data transmitting
 Test Specification : Horizontal, 30MHz-1GHz
 Comment : DC 5.0V from PC Input AC 120V/60Hz



```

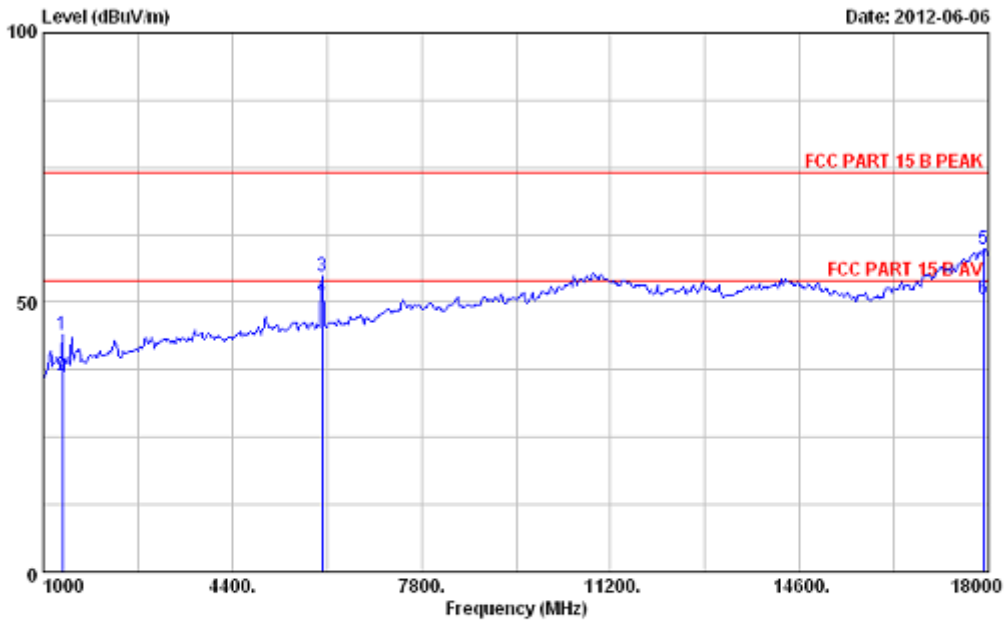
Site no.    : 3m Chamber                      Data no.   : 15
Dis. / Ant.: 3m 2010 CBL6111C 2598          Ant. pol.  : HORIZONTAL
Limit       : FCC PART 15 B (3M)
Env. / Ins. : 24*C/56%                      Engineer   : Jolly_Xu
EUT        : SATA-II Normal M/N:SSD
Power Rating : AC 120V/60Hz
Test Mode   : Data Transmitting
    
```

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dBuV) | Reading (dBuV/m) | Emission Level (dBuV/m) | Limits (dB) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-------------------|------------------|-------------------------|-------------|-------------|--------|
| 1 | 151.250 | 11.54 | 0.80 | 0.00 | 14.06 | 26.40 | 43.50 | 17.10 | QP |

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor
 2. The emission levels that are 20dB below the official limit are not reported.

Radiated Emission Test 30MHz – 18GHz

M/N : SSD
 Operating Condition : Data transmitting
 Test Specification : Vertical, 1GHz-18GHz
 Comment : DC 5.0V from PC Input AC 230V/50Hz



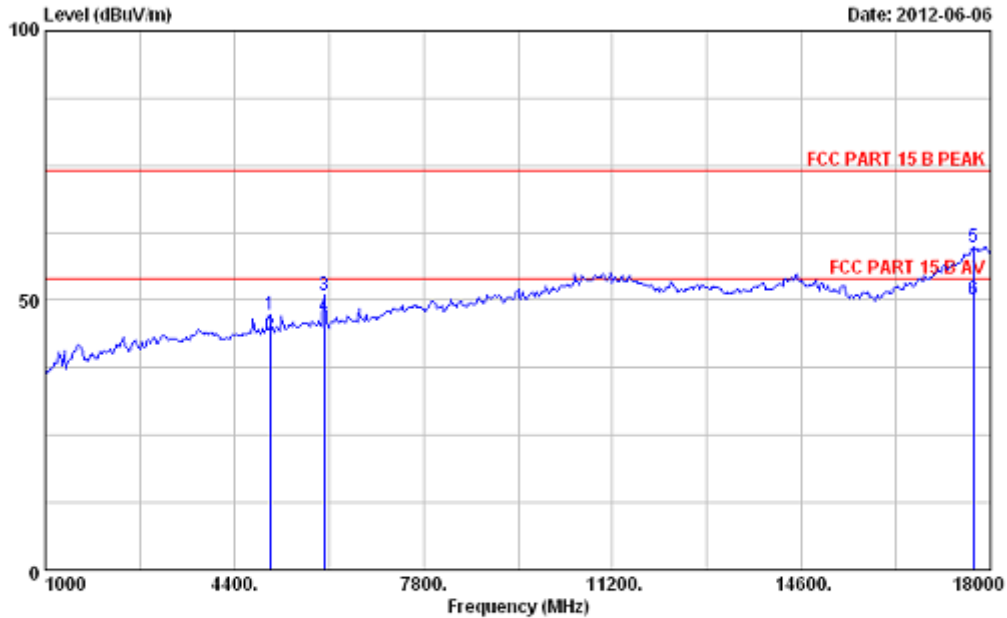
Site no. : 10m Chamber Data no. : 39
 Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL
 Limit : FCC PART 15 B PEAK
 Env. / Ins. : 24°C/56% Engineer : Jolly_Xu
 EUT : SATA-II Normal M/N:SSD
 Power Rating : AC 120V/60Hz
 Test Mode : Data Transmitting

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dBuV) | Reading (dBuV/m) | Emission Level (dBuV/m) | Limits (dB) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-------------------|------------------|-------------------------|-------------|-------------|---------|
| 1 | 1340.000 | 24.86 | 1.07 | 34.73 | 52.74 | 43.94 | 74.00 | 30.06 | Peak |
| 2 | 1340.550 | 24.86 | 1.07 | 34.73 | 45.35 | 36.55 | 54.00 | 17.45 | Average |
| 3 | 6015.000 | 34.22 | 3.85 | 34.60 | 51.48 | 54.95 | 74.00 | 19.05 | Peak |
| 4 | 6015.680 | 34.22 | 3.85 | 34.60 | 47.55 | 51.02 | 54.00 | 2.98 | Average |
| 5 | 17915.000 | 43.16 | 8.28 | 34.91 | 43.40 | 59.93 | 74.00 | 14.07 | Peak |
| 6 | 17915.240 | 43.16 | 8.28 | 34.91 | 34.12 | 50.65 | 54.00 | 3.35 | Average |

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor
 2. The emission levels that are 20dB below the official limit are not reported.

Radiated Emission Test 30MHz – 18GHz

M/N : SSD
 Operating Condition : Data transmitting
 Test Specification : Horizontal, 1GHz -18GHz
 Comment : DC 5.0V from PC Input AC 120V/60Hz



Site no. : 10m Chamber
 Dis. / Ant. : 3m 2011 3115 9607-4877
 Limit : FCC PART 15 B PEAK
 Env. / Ins. : 24°C/56%
 EUT : SATA-II Normal M/N:SSD
 Power Rating : AC 120V/60Hz
 Test Mode : Data Transmitting
 Data no. : 40
 Ant. pol. : HORIZONTAL
 Engineer : Jolly_Xu

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dBuV) | Reading (dBuV/m) | Emission Level (dBuV/m) | Limits (dB) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-------------------|------------------|-------------------------|-------------|-------------|---------|
| 1 | 5046.000 | 33.11 | 3.43 | 34.60 | 45.29 | 47.23 | 74.00 | 26.77 | Peak |
| 2 | 5046.820 | 33.11 | 3.43 | 34.60 | 41.54 | 43.48 | 54.00 | 10.52 | Average |
| 3 | 6015.000 | 34.22 | 3.85 | 34.60 | 47.57 | 51.04 | 74.00 | 22.96 | Peak |
| 4 | 6015.970 | 34.22 | 3.85 | 34.60 | 43.61 | 47.08 | 54.00 | 6.92 | Average |
| 5 | 17694.000 | 42.53 | 7.91 | 34.93 | 44.39 | 59.90 | 74.00 | 14.10 | Peak |
| 6 | 17694.120 | 42.53 | 7.91 | 34.93 | 34.53 | 50.04 | 54.00 | 3.96 | Average |

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor
 2. The emission levels that are 20dB below the official limit are not reported.

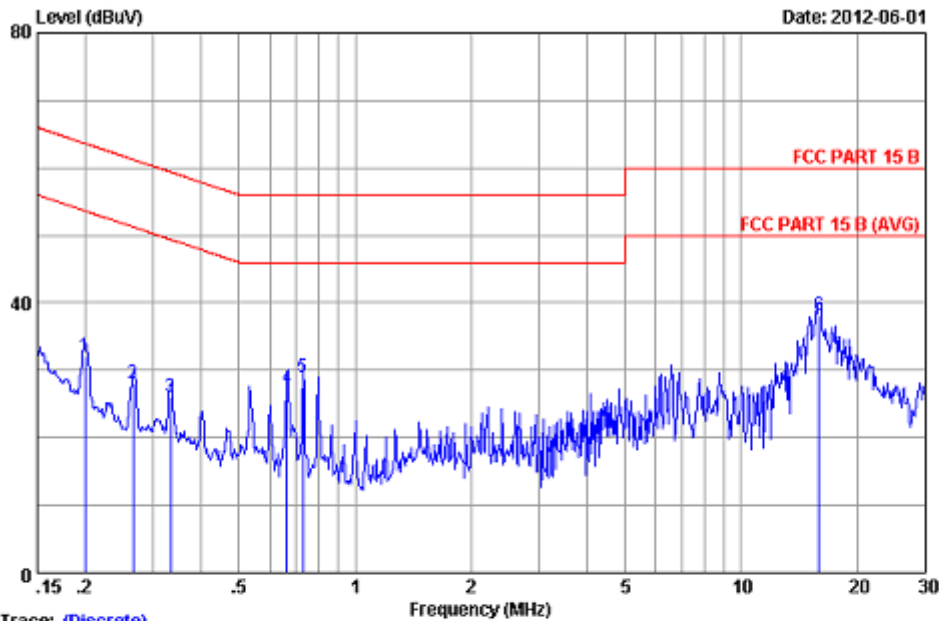
**Test Equipment List****Radiated Emission Test**

| DESCRIPTION | MANUFACTURER | MODEL NO. | SERIAL NO. | CAL. DUE DATE |
|-------------------|-----------------|-----------------|--------------------|---------------|
| EMI Spectrum | Agilent | E4407B | MY41440292 | May.07, 13 |
| Test Receiver | Rohde & Schwarz | ESVS10 | 834468/011 | May.07, 13 |
| Amplifier | HP | 8447D | 2648A04738 | May.07, 13 |
| Bilog Antenna | Schaffner | CBL6111C | 2598 | Nov.09, 12 |
| RF Cable | MIYAZAKI | 8D-FB | 3# Chamber No.1 | May.07, 13 |
| Coaxial Switch | Anritsu | MP59B | M73989 | May.07, 13 |
| Spectrum Analyzer | Agilent | E4407B | MY41440292 | May.08, 13 |
| Horn Antenna | EMCO | 3115 | 9607-4877 | July.01, 13 |
| Amplifier | Agilent | 8449B | 3008A00863 | May.08, 13 |
| RF Cable | Hubersuhner | SUCOFLEX 106 | 77980/6 | May.08, 13 |
| RF Cable | Hubersuhner | SUCOFLEX 106 | 77977/6 | May.08, 13 |



7.2 Conducted Emission Test 150kHz – 30MHz

M/N : SSD
 Operating Condition : Data transmitting
 Test Specification : Live
 Comment : DC 5.0V from PC Input AC 120V/60Hz



Trace: (Discrete)
 Site no : 1#conduction Data No : 31
 Dis./Ant. : ** 2011 ESH2-25 LINE
 Limit : FCC PART 15 B
 Env./Ins. : 20.5°C/55% Engineer : Abner
 EUT : SATA-II Normal M/N:SSD
 Power Rating : AC 120V/60Hz
 Test Mode : Data Transmitting

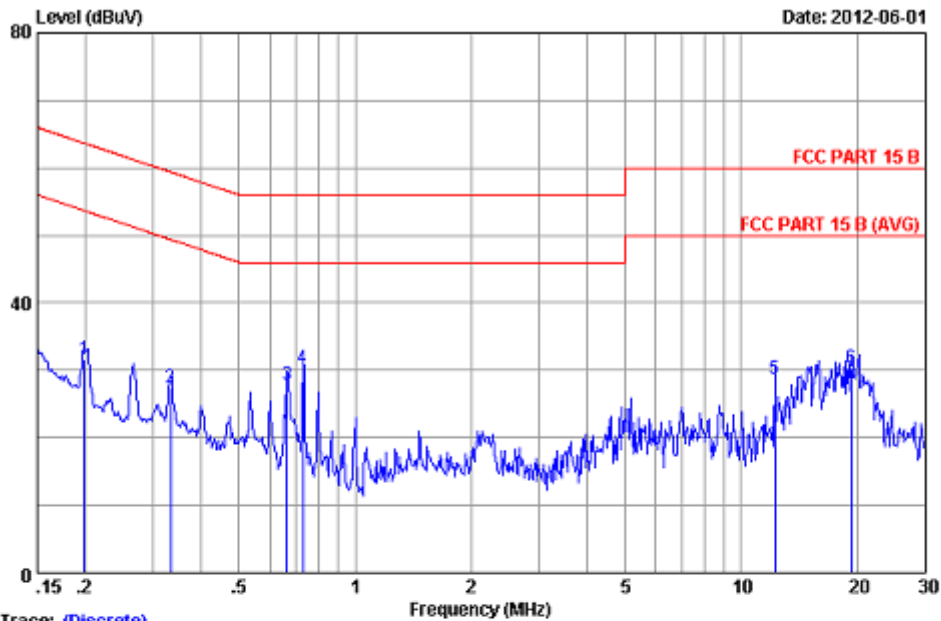
| No | Freq (MHz) | LISN Factor (dB) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV) | Limits (dBuV) | Margin (dB) | Remark |
|----|------------|------------------|-----------------|----------------|-----------------------|---------------|-------------|--------|
| 1 | 0.19969 | 0.15 | 9.98 | 21.95 | 32.08 | 63.62 | 31.54 | QP |
| 2 | 0.26583 | 0.15 | 9.98 | 17.95 | 28.08 | 61.25 | 33.17 | QP |
| 3 | 0.33208 | 0.16 | 9.98 | 16.01 | 26.15 | 59.40 | 33.25 | QP |
| 4 | 0.66478 | 0.16 | 9.97 | 17.19 | 27.32 | 56.00 | 28.68 | QP |
| 5 | 0.73131 | 0.16 | 9.97 | 18.77 | 28.90 | 56.00 | 27.10 | QP |
| 6 | 15.885 | 0.43 | 9.94 | 27.81 | 38.18 | 60.00 | 21.82 | QP |

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.
 2.If the average limit is met when using a quasi-peak detector. the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.



Conducted Emission Test 150kHz – 30MHz

M/N : SSD
 Operating Condition : Data transmitting
 Test Specification : Neutral
 Comment : DC 5.0V from PC Input AC 120V/60Hz



Trace: (Discrete)
 Site no : 1#conduction Data No : 32
 Dis./Ant. : ** 2011 ESH2-25 NEUTRAL
 Limit : FCC PART 15 B
 Env./Ins. : 20.5°C/55% Engineer : Abner
 EUT : SATA-II Normal M/N:SSD
 Power Rating : AC 120V/60Hz
 Test Mode : Data Transmitting

| No | Freq (MHz) | LISN Factor (dB) | Cable Loss (dB) | Reading (dBUV) | Emission Level (dBUV) | Limits (dBUV) | Margin (dB) | Remark |
|----|------------|------------------|-----------------|----------------|-----------------------|---------------|-------------|--------|
| 1 | 0.19863 | 0.14 | 9.98 | 21.51 | 31.63 | 63.67 | 32.04 | QP |
| 2 | 0.33208 | 0.15 | 9.98 | 17.37 | 27.50 | 59.40 | 31.90 | QP |
| 3 | 0.66478 | 0.16 | 9.97 | 17.82 | 27.95 | 56.00 | 28.05 | QP |
| 4 | 0.73131 | 0.16 | 9.97 | 20.08 | 30.21 | 56.00 | 25.79 | QP |
| 5 | 12.188 | 0.30 | 9.91 | 18.65 | 28.86 | 60.00 | 31.14 | QP |
| 6 | 19.326 | 0.40 | 10.00 | 19.96 | 30.36 | 60.00 | 29.64 | QP |

Remarks: 1. Emission Level=LISN Factor+Cable Loss (Include 10dB pulse limit) +Reading.
 2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

**Test Equipment List****Conducted Emission Test**

| DESCRIPTION | MANUFACTURER | MODEL NO. | SERIAL NO. | CAL. DUE DATE |
|----------------|-----------------|-----------|---------------|---------------|
| Test Receiver | Rohde & Schwarz | ESHS10 | 838693/001 | Dec.18, 12 |
| L.I.S.N.#1 | Rohde & Schwarz | ESH2-Z5 | 834066/011 | Mar.30, 13 |
| L.I.S.N.#3 | Kyoritsu | KNW-242C | 8-1920-1 | May.08, 13 |
| Terminator | Hubersuhner | 50Ω | No. 1 | May.08, 13 |
| Terminator | Hubersuhner | 50Ω | No. 2 | May.08, 13 |
| RF Cable | Fujikura | 3D-2W | LISN Cable 1# | May.08, 13 |
| Coaxial Switch | Anritsu | MP59B | M55367 | May.08, 13 |
| Passive Probe | Rohde & Schwarz | ESH2-Z3 | 299.7810.52 | May.08, 13 |
| Pulse Limiter | Rohde & Schwarz | ESH3-Z2 | 100341 | May.08, 13 |



8 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

System Measurement Uncertainty

| Items | | Extended Uncertainty |
|-------|----------------------------------|------------------------|
| RE | Field strength (dB μ V/m) | U=4.32dB (30MHz-25GHz) |
| CE | Disturbance Voltage (dB μ V) | U=2.4dB |