



Product Service

FCC - TEST REPORT

Report Number	: 68.760.12.102.01	Date of Issue:	18 June 2012
Model	: SSD		
Product Type	: SATA-III Challenger 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		

Jiangsu TÜV Product Service Ltd. – Shenzhen Branch is a subcontractor to TÜV SÜD Product Service GmbH according to the principles outlined in ISO 17025.

Jiangsu TÜV Product Service Ltd. – Shenzhen Branch reports apply only to the specific samples tested under stated test conditions. Construction of the actual test samples has been documented. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. The manufacturer/importer is responsible to the Competent Authorities in Europe for any modifications made to the production units which result in non-compliance to the relevant regulations. Jiangsu TÜV Product Service Ltd. – Shenzhen Branch shall have no liability for any deductions, inferences or generalizations drawn by the client or others from Jiangsu TÜV Product Service Ltd. – Shenzhen Branch issued reports.

This report is the confidential property of the client. As a mutual protection to our clients, the public and ourselves, extracts from the test report shall not be reproduced except in full without our written approval



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
6th Floor, H Hall,
Century Craftwork Culture Square,
No. 4001, Fuqiang Road,
Futian District 518048,
Shenzhen, P.R.C.

Telephone: 86 755 8828 6998
Fax: 86 755 8828 5299

Location 2: Audix Technology (shenzhen) Co., Ltd.
Block Shenzhen, Science & Industry Park, Nantou,
Shenzhen, Guangdong, China

Telephone: 86-755-2663 9496
Fax: 86-755-2663 2877

3 Description of the Equipment Under Test

Description of the Equipment Under Test

Product: SATA-III Challenger 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	



Product Service

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	☒	☐	☐	Location 2
Conducted Emission on AC 150kHz to 30MHz	13	☒	☐	☐	Location 2

6 General Remarks

Remarks:

This submittal(s) (test report) is intended for FCC ID: OFTMSATA-III 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 -

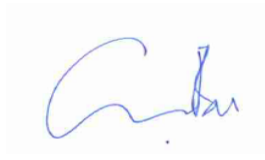
Reviewed by:

Prepared by:

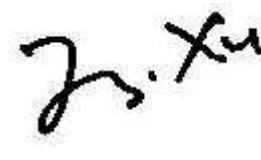
Tested by:



Ken Li
EMC Project Manager



Cookies Bu
EMC Project Engineer

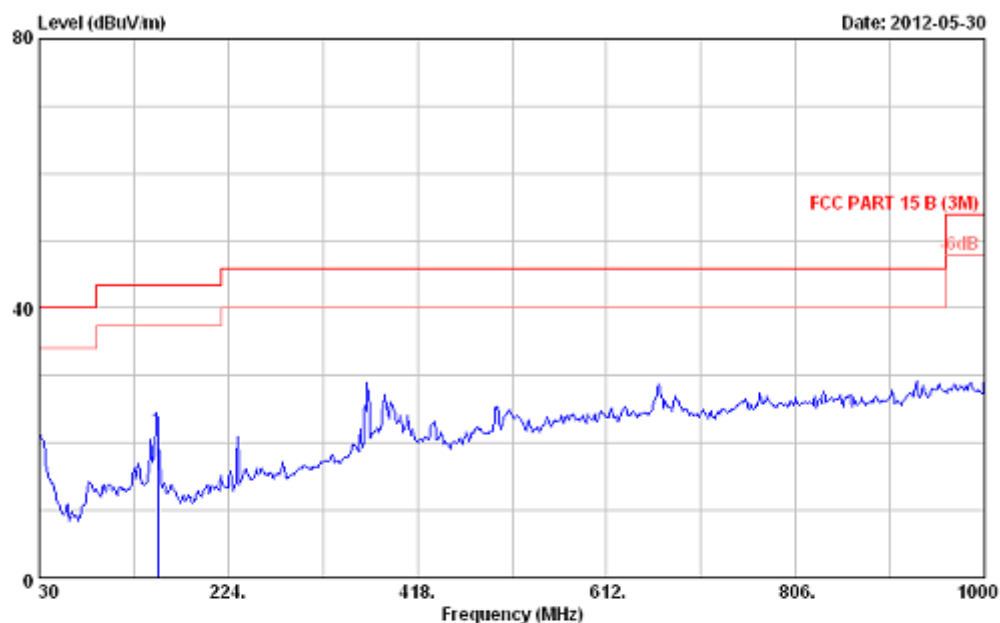


Jolly Xu
EMC Test Engineer

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



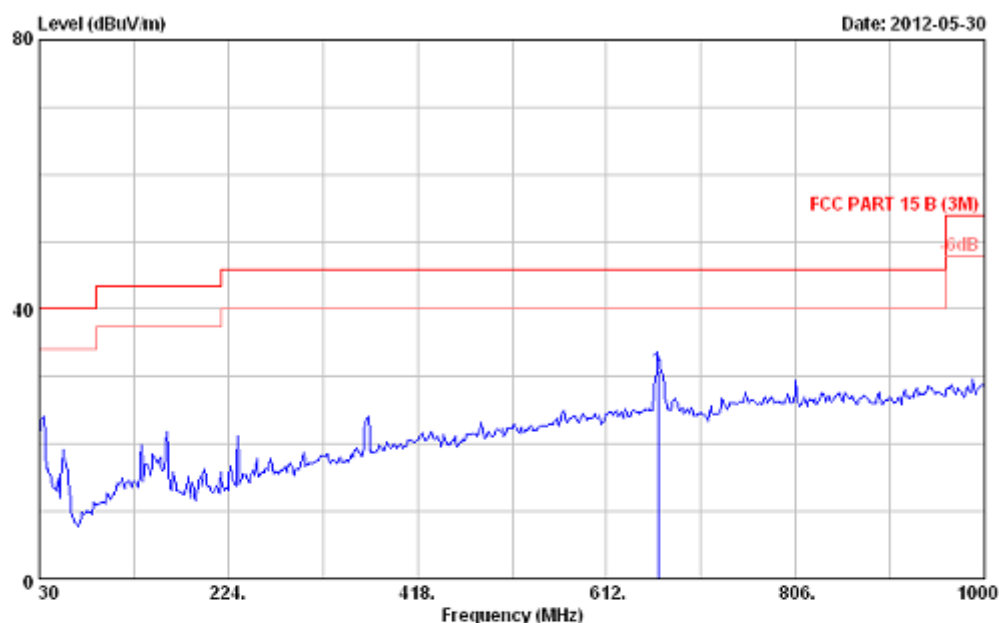
Site no. : 3m Chamber Data no. : 1
Dis. / Ant. : 3m 2010 CBL6111C 2598 Ant. pol. : VERTICAL
Limit : FCC PART 15 B (3M)
Env. / Ins. : 24°C/56% Engineer : Jolly_Xu
EUT : SAT&-III Challenger M/N:SSD
Power Rating : AC 120V/60Hz
Test Mode : Data Transmitting

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	9.42	21.76	43.50	21.74	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



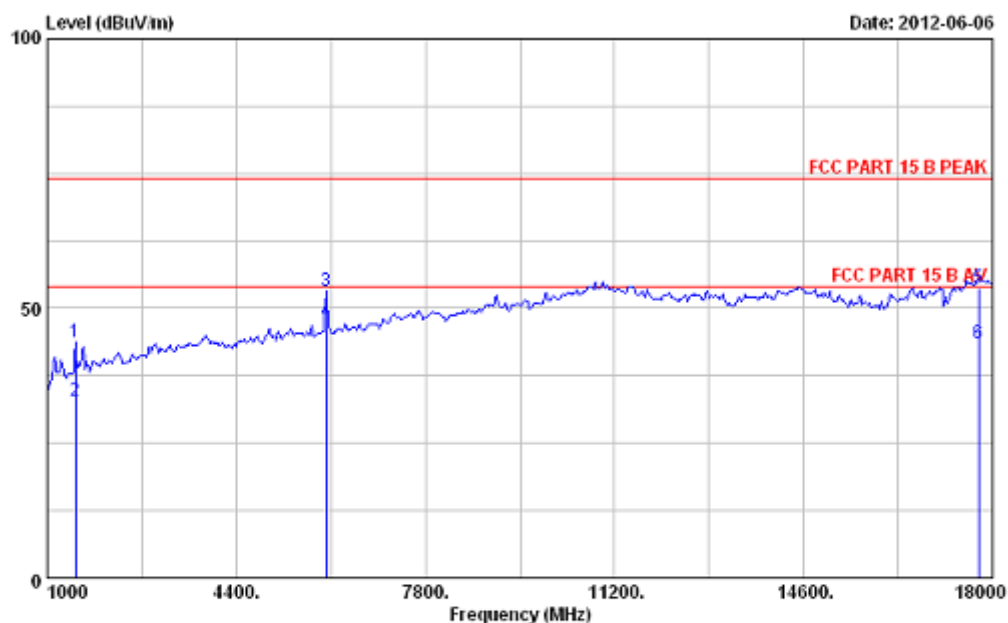
Site no. : 3m Chamber Data no. : 2
Dis. / Ant. : 3m 2010 CBL6111C 2598 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 B (3M)
Env. / Ins. : 24°C/56% Engineer : Jolly_Xu
EUT : SATA-III Challenger M/N:SSD
Power Rating : AC 120V/60Hz
Test Mode : Data Transmitting

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	665.350	20.71	1.90	0.00	8.32	30.93	46.00	15.07	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 : DOM
Operating Condition : Data transmitting
Test Specification : Vertical, 1GHz-18GHz
Comment : DC 5.0V from PC Input AC 230V/50Hz



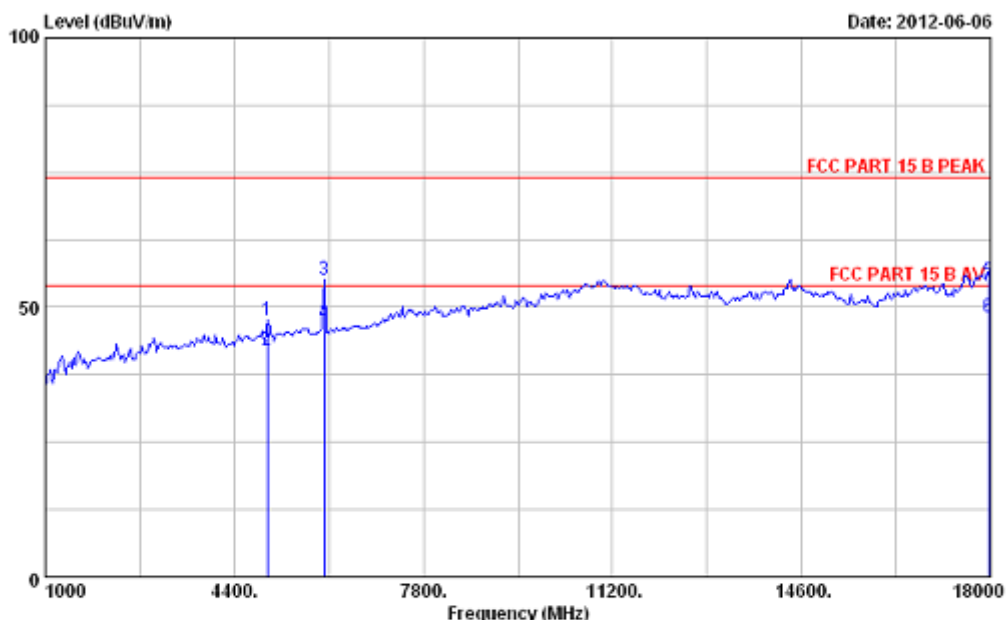
Site no. : 10m Chamber Data no. : 35
Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15 B PEAK
Env. / Ins. : 24°C/56% Engineer : Jolly_Xu
EUT : SATA-III Challenger M/N:SSD
Power Rating : AC 120V/60Hz
Test Mode : Data Transmitting

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	1510.000	25.66	1.33	34.65	51.47	43.81	74.00	30.19	Peak
2	1510.160	25.66	1.33	34.65	40.59	32.93	54.00	21.07	Average
3	6015.000	34.22	3.85	34.60	49.81	53.28	74.00	20.72	Peak
4	6015.620	34.22	3.85	34.60	44.16	47.63	54.00	6.37	Average
5	17745.000	42.68	7.97	34.93	38.10	53.82	74.00	20.18	Peak
6	17745.650	42.68	7.97	34.93	27.82	43.54	54.00	10.46	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 Data no. : 36
Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 B PEAK
Env. / Ins. : 24°C/56% Engineer : Jolly_Xu
EUT : SAT&-III Challenger 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	4995.000	33.00	3.40	34.60	45.81	47.61	74.00	26.39	Peak
2	4995.840	33.00	3.40	34.60	40.19	41.99	54.00	12.01	Average
3	6015.000	34.22	3.85	34.60	51.67	55.14	74.00	18.86	Peak
4	6015.854	34.22	3.85	34.60	43.56	47.03	54.00	6.97	Average
5	17966.000	43.30	8.34	34.90	38.22	54.96	74.00	19.04	Peak
6	17966.500	43.30	8.34	34.90	31.52	48.26	54.00	5.74	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.

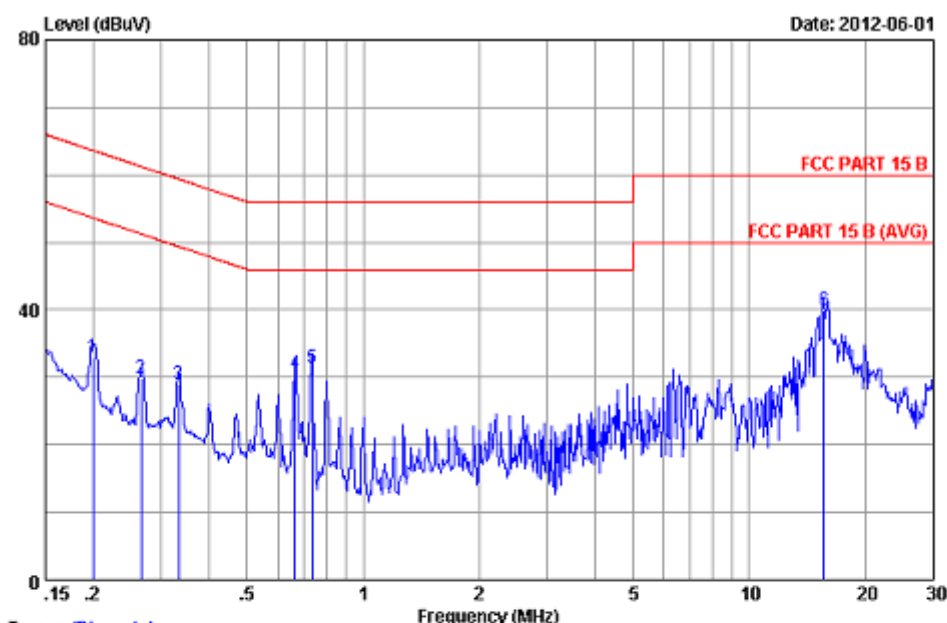
Test Equipment List

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)

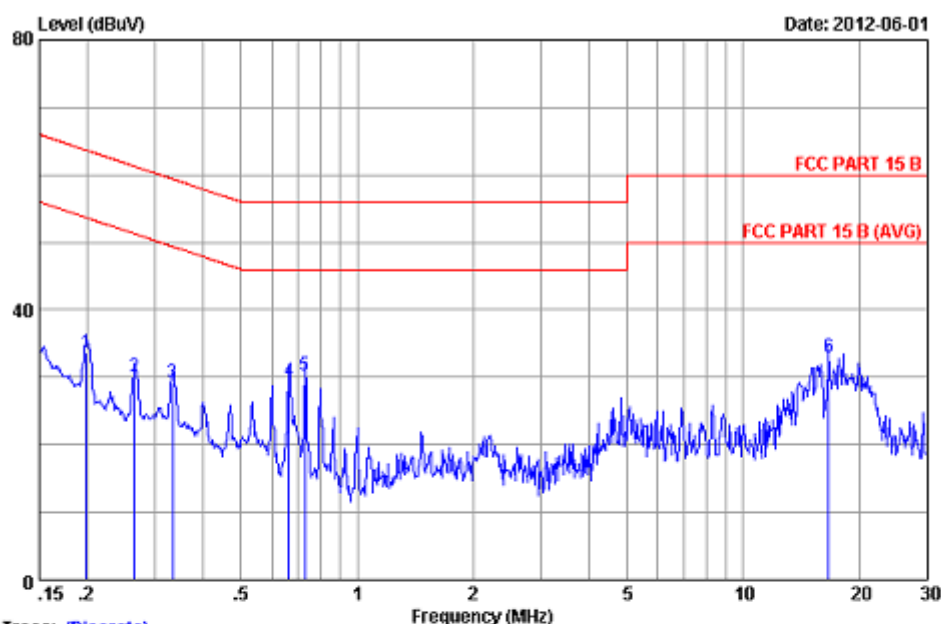
Site no : 1#conduction Data No : 18
Dis./Ant. : ** 2011 ESH2-25 LINE
Limit : FCC PART 15 B
Env./Ins. : 20.5°C/55% Engineer : Abner
EUT : SATA-III Challenger M/N:SSD
Power Rating : AC 120V/60Hz
Test Mode : Data Transmitting
:

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	22.90	33.03	63.62	30.59	QP
2	0.26583	0.15	9.98	19.72	29.85	61.25	31.40	QP
3	0.33208	0.16	9.98	18.82	28.96	59.40	30.44	QP
4	0.66478	0.16	9.97	20.49	30.62	56.00	25.38	QP
5	0.73910	0.16	9.97	21.23	31.36	56.00	24.64	QP
6	15.635	0.42	9.93	29.54	39.89	60.00	20.11	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

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 : 17
Dis./Ant. : ** 2011 ESH2-Z5 NEUTRAL
Limit : FCC PART 15 B
Env./Ins. : 20.5°C/55% Engineer : Abner
EUT : SATA-III Challenger 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	23.56	33.68	63.67	29.99	QP
2	0.26442	0.14	9.98	20.06	30.18	61.29	31.11	QP
3	0.33208	0.15	9.98	19.02	29.15	59.40	30.25	QP
4	0.66478	0.16	9.97	19.22	29.35	56.00	26.65	QP
5	0.73131	0.16	9.97	20.20	30.33	56.00	25.67	QP
6	16.661	0.35	9.95	22.58	32.88	60.00	27.12	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