



Product Service

FCC - TEST REPORT

Report Number	: 68.760.12.097.01	Date of Issue:	18 June 2012
Model	: SSD		
Product Type	: M-SATA 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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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: M-SATA Solid State Disk

Model no.: SSD

Trade Mark: 

Serial number: NIL

Options and accessories: NIL

Rated Input: 3.3V ($\pm 5\%$)

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



Product Service

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: OFTM-SATA 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 -

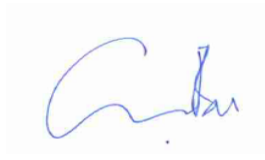
Reviewed by:

Prepared by:

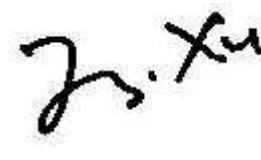
Tested by:



Ken Li
EMC Project Manager



Cookies Bu
EMC Project Engineer

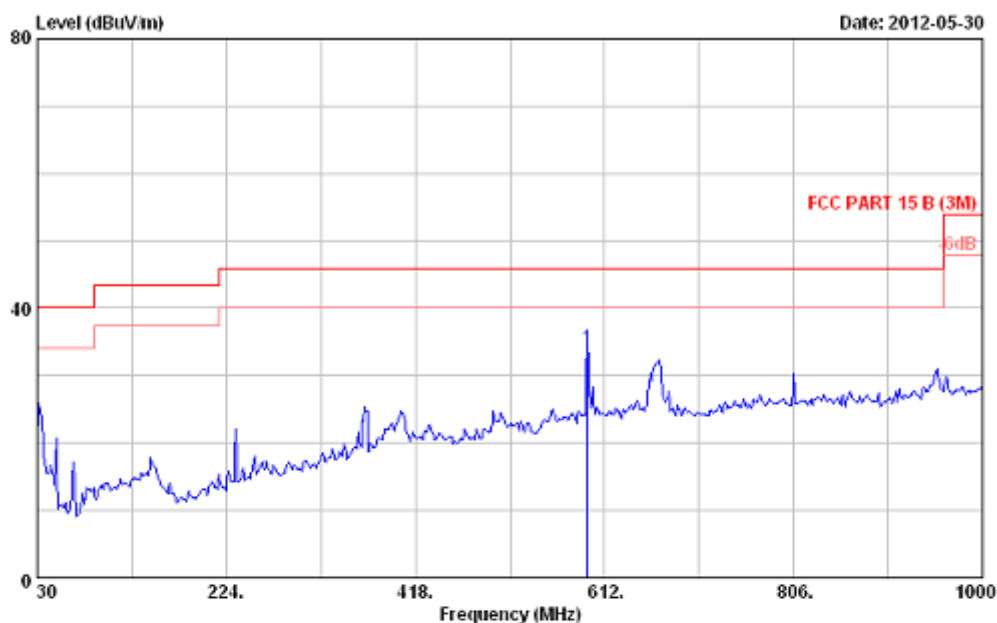


Jolly Xu
EMC Test Engineer

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 3.3V from PC Input AC 120V/60Hz



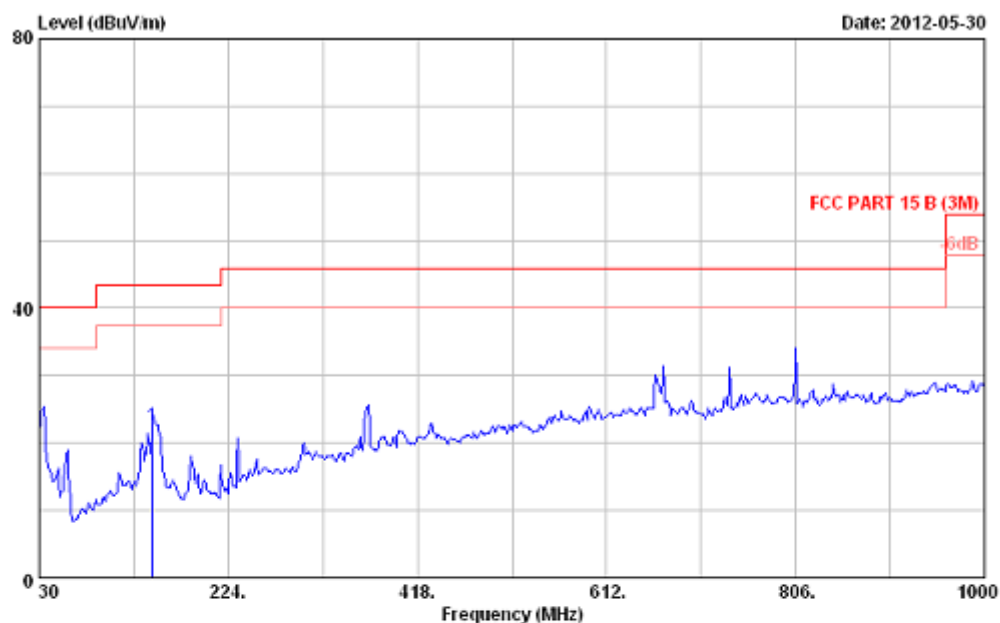
Site no. : 3m Chamber
Dis. / Ant. : 3m 2010 CBL6111C 2598
Limit : FCC PART 15 B (3M)
Env. / Ins. : 24°C/56%
EUT : M-SATA M/N:SSD
Power Rating : AC 120V/60Hz
Test Mode : Data Transmitting
Data no. : 8
Ant. pol. : VERTICAL
Engineer : Jolly_Xu

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	594.540	19.85	1.53	0.00	12.76	34.14	46.00	11.86	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 3.3V from PC Input AC 120V/60Hz



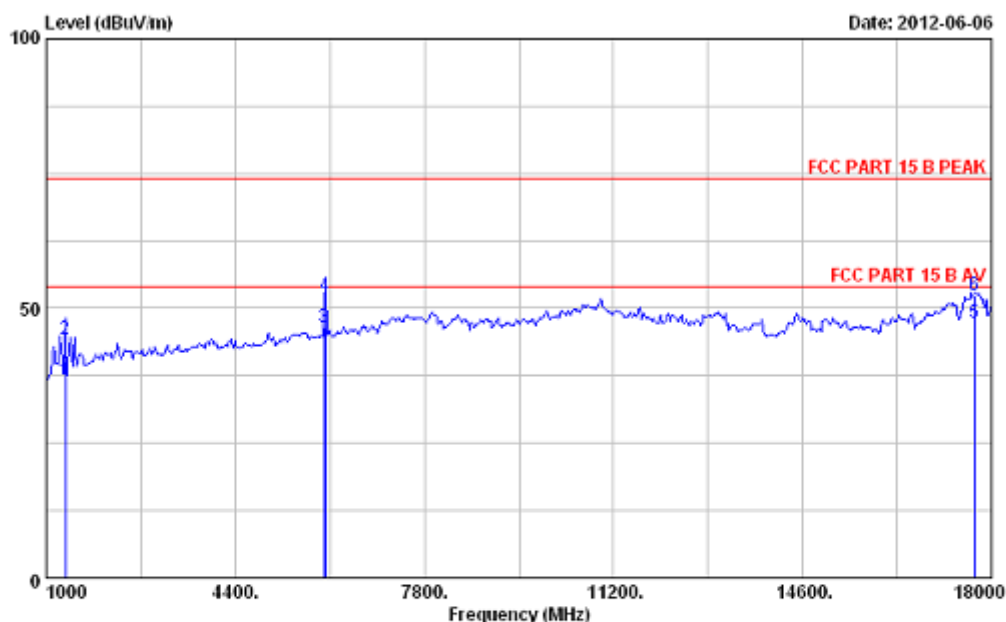
Site no. : 3m Chamber
Dis. / Ant. : 3m 2010 CBL6111C 2598
Limit : FCC PART 15 B (3M)
Env. / Ins. : 24°C/56%
EUT : M-SATA M/N:SSD
Power Rating : AC 120V/60Hz
Test Mode : Data Transmitting
Data no. : 7
Ant. pol. : HORIZONTAL
Engineer : Jolly_Xu

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	146.400	11.84	0.80	0.00	9.97	22.61	43.50	20.89	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 3.3V from PC Input AC 120V/60Hz



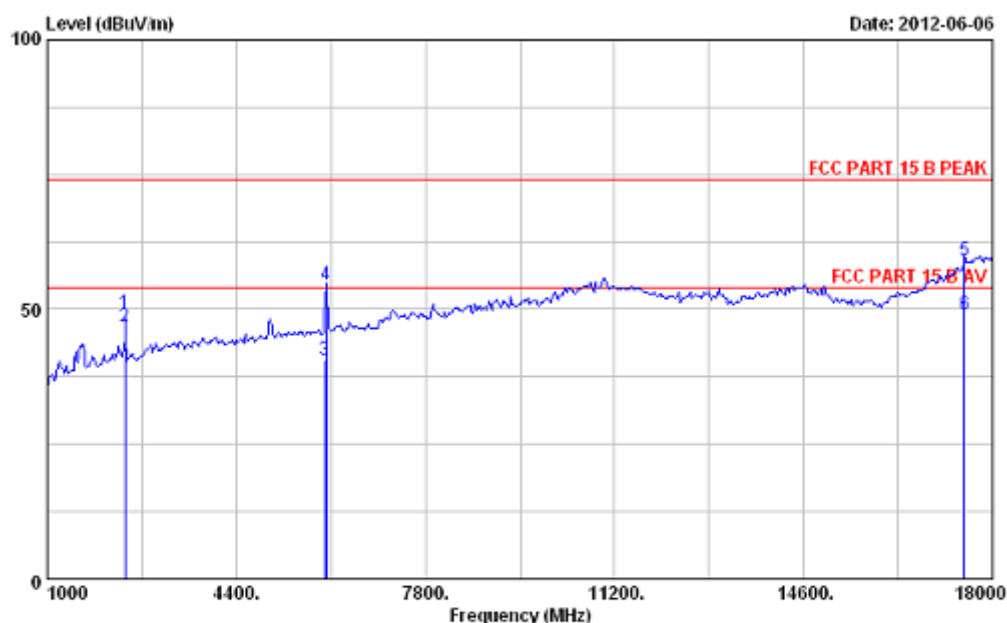
Site no. : 10m Chamber Data no. : 33
Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL
Limit : FCC PART 15 B PEAK
Env. / Ins. : 24°C/56% Engineer : Jolly_Xu
EUT : M-SATA M/N:SSD
Power Rating : AC 120V/60Hz
Test Mode : Data Transmitting

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	1338.000	24.86	1.07	34.73	45.60	36.80	54.00	17.20	Average
2	1340.000	24.86	1.07	34.73	53.07	44.27	74.00	29.73	Peak
3	5999.750	34.20	3.84	34.60	42.95	46.39	54.00	7.61	Average
4	6015.000	34.22	3.85	34.60	48.90	52.37	74.00	21.63	Peak
5	17690.250	42.53	7.87	34.93	31.75	47.22	54.00	6.78	Average
6	17694.000	42.53	7.91	34.93	36.99	52.50	74.00	21.50	Peak

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 3.3V from PC Input AC 120V/60Hz



Site no. : 10m Chamber Data no. : 34
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 : M-SATA 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	2394.000	27.98	2.24	34.44	53.57	49.35	74.00	24.65	Peak
2	2394.120	27.98	2.24	34.44	51.08	46.86	54.00	7.14	Average
3	5999.750	34.20	3.84	34.60	37.13	40.57	54.00	13.43	Average
4	6015.000	34.22	3.85	34.60	51.09	54.56	74.00	19.44	Peak
5	17490.000	41.93	7.54	34.95	44.49	59.01	74.00	14.99	Peak
6	17490.120	41.93	7.54	34.95	34.53	49.05	54.00	4.95	Average

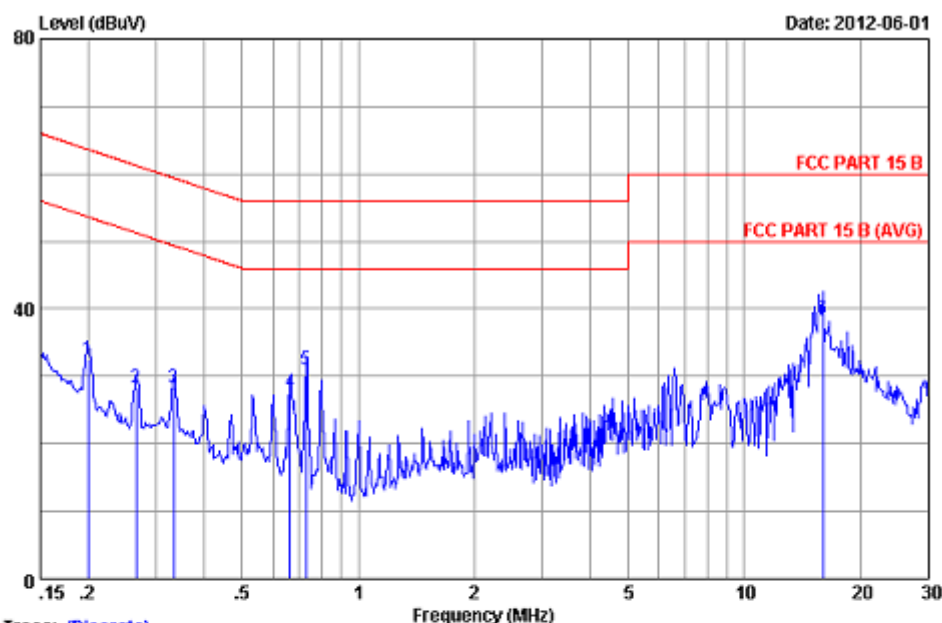
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
-Amp Factor
2. The emission levels that are 20dB below the official
limit are not reported.

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 3.3V from PC Input AC 120V/60Hz



Trace: (Discrete)

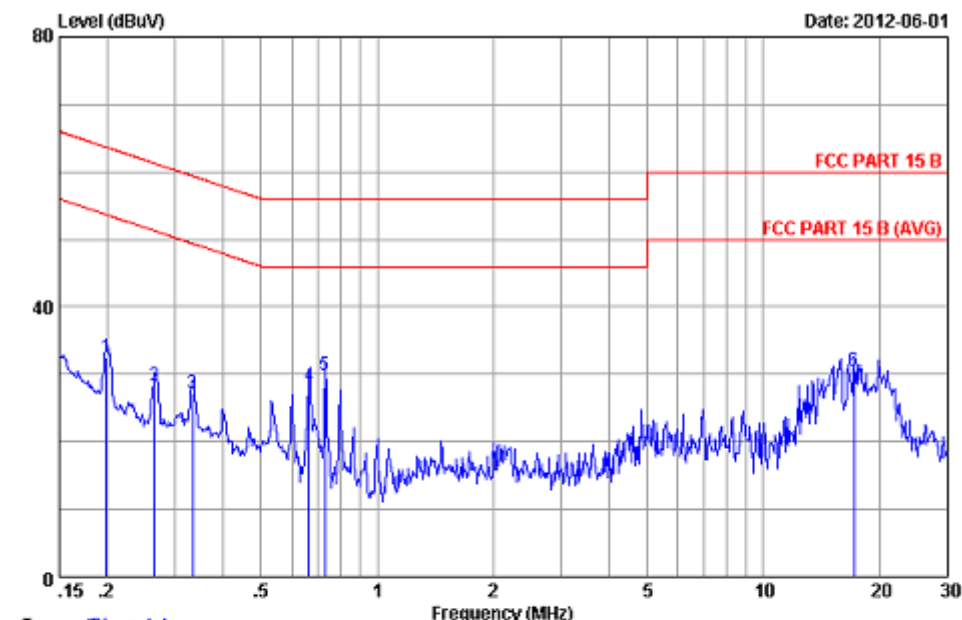
Site no : 1#conduction Data No : 19
Dis./Ant. : ** 2011 ESH2-25 LINE
Limit : FCC PART 15 B
Env./Ins. : 20.5°C/55% Engineer : Abner
EUT : M-SATA M/N:SSD
Power Rating : AC 120V/60Hz
Test Mode : Data Transmitting
:

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	22.45	32.58	63.62	31.04	QP
2	0.26583	0.15	9.98	18.19	28.32	61.25	32.93	QP
3	0.33208	0.16	9.98	18.14	28.28	59.40	31.12	QP
4	0.66478	0.16	9.97	17.61	27.74	56.00	28.26	QP
5	0.73131	0.16	9.97	20.76	30.89	56.00	25.11	QP
6	15.970	0.43	9.94	28.22	38.59	60.00	21.41	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 3.3V from PC Input AC 120V/60Hz



Trace: (Discrete)
Site no : 1#conduction Data No : 20
Dis./Ant. : ** 2011 ESH2-Z5 NEUTRAL
Limit : FCC PART 15 B
Env./Ins. : 20.5°C/55% Engineer : Abner
EUT : M-SATA 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	22.31	32.43	63.67	31.24	QP
2	0.26442	0.14	9.98	18.13	28.25	61.29	33.04	QP
3	0.33208	0.15	9.98	17.09	27.22	59.40	32.18	QP
4	0.66478	0.16	9.97	18.12	28.25	56.00	27.75	QP
5	0.73131	0.16	9.97	19.82	29.95	56.00	26.05	QP
6	17.199	0.36	9.96	20.10	30.42	60.00	29.58	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