

EMC TEST REPORT



For Electromagnetic Interference of

Report Reference No.....: 11EA09002 01001
 Tested by (name + signature).....: Simon Zeng
 Reviewer by (name + signature): Brian Ni
 Approved by (name + signature).....: King Wang
 Date of issue.....: 2011-11-25

Testing Laboratory: ATT Product Service Co., Ltd
 Address.....: 2F., B2/B3 Area, City Plaza, ChangAn Town,
 DongGuan City, GuangDong,
 P.R.China

Applicant's name: Keen Ocean Industrial Ltd
 Address.....: Unit,26/F.,Shield Industrial Centre,84-92 Chai Wan Kok Street,
 Tsuen Wan,N,T.,Hong Kong
 Manufacturer: Keen Ocean Industrial Ltd

Test specification:
 Test item description.....: Switching Adaptor
 Trade Mark: --
 Model/Type reference: S05-024-xxxx-yyyyyZ
 Refer to page 5 for details.
 Ratings.....: I/P: 100-240V~ 50-60Hz, 0.8A Max
 O/P: Refer to page 5 for details.

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1. CERTIFICATION

Testing Laboratory: ATT Product Service Co., Ltd
 Address.....: 2F., B2/B3 Area, City Plaza, ChangAn Town,
 DongGuan City, GuangDong,
 P.R.China

Applicant's name: Keen Ocean Industrial Ltd
 Address.....: Unit,26/F.,Shield Industrial Centre,84-92 Chai Wan Kok Street,
 Tsuen Wan,N,T.,Hong Kong

Manufacturer: Same as applicant
 Address.....: Same as applicant
 Factory.....: HE YUAN SKY WEALTH ELECTRONIC AND PLASTIC CO
 LTD
 Address.....: The South Side of Keqi Road,The East Side of xinggong Road
 of heyuan,Hi-tech Development Zone,Heyuan City,Guandong
 Province,China.

Test specification:

Test item description.....: Switching Adaptor
 Trade Mark: --
 Model/Type reference: S05-024-xxxx-yyyyyZ
 Refer to page 5 for details.
 Test Sample: S05-024-0240-01000G,S05-024-0100-02400G
 Ratings.....: I/P: 100-240V~ 50-60Hz, 0.8A Max
 O/P: Refer to page 5 for details.
 Tested Power: AC 230V 50Hz
 Standards: EN 55022: 2006+A1:2007
 EN 55024:1998+A1: 2001+A2: 2003
 EN 61000-3-2:2006+A1:2009+A2:2009
 EN 61000-3-3:2008

The device described above was tested by ATT Product Service Co., Ltd to determine the maximum emission levels emanated from the device and severity levels of the device endure and its performance criterion. The measurement results are contained in this test report and ATT Product Service Co., Ltd assumes full responsibility for the accuracy and completeness of these measurements. This report shows the EUT is technically compliance with the above official standards.

This report applies to the above sample only and shall not be reproduced in part without written approval of ATT Product Service Co., Ltd.

1.1 General product information:

Model: S05-024-xxxx-yyyyyZ

Output: see the model list

Table A: defination of variables

Variable:	Range of variable:	Contect:
xxxx	0100-0240	4 digits, indicate 10 times output voltage in Vol., the minimum step is 0.1V .eg: 0100 = 10Vdc, 0240 = 24Vdc
yyyyy	00010-02400	5 digits, indicate output current in mA, the minimum step is 10mA.eg: 00010 = 0.01A, 01200= 1.2A
Z	G, B, U , K, S, C, J, A	Represents the plug type for different countries. G=Europe, B=British, U=America, K=Korea, S=Australia, C=China, J=Japan, A=Argentina

Table B: Output rating

Model No.	Output Voltage (V)	Output Curren (A)	Max.Output Power(W)	Transformer (T1)
S05-024-0100 –yyyyyZ - S05-024-0169 –yyyyyZ	10-16.9	0.01-2.4	24	TFE-23364-XX
S05-024-0170-yyyyyZ - S05-024-0240-yyyyyZ	17-24	0.01-1.41	24	TFE-23365-XX

Notes: All models have same circuit diagram and the same PCB layout, except for output rating and transformer T1 (total 2 transformers are used, those transformers has same construction except turns windings) . For the output voltage, the minimum step is 0.1V ; for the output current, the minimum step is 0.01A. The output current multiplied by output voltage should not exceed the max. output power.

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

EMC Emission				
Standard	Test Item	Limit	Judgment	Remark
EN 55022: 2006+A1:2007	Conducted Emission	Class B	PASS	
	Radiated Emission	Class B	PASS	
EN61000-3-2:2006+A1:2009+A2:2009	Harmonic Current Emission	Class A	PASS	
EN61000-3-3:2008	Voltage Fluctuations & Flicker	-----	PASS	
EMC Immunity (EN 55024: 1998+A1:2001+A2:2003)				
Section	Test Item	Performance Criteria	Judgment	Remark
EN 61000-4-2:2009	Electrostatic Discharge	B	PASS	
EN 61000-4-3: 2006+A1:2008+A2:2010	RF electromagnetic field	A	PASS	
EN 61000-4-4: 2004+A1:2010	Fast transients	B	PASS	
EN 61000-4-5: 2006	Surges	B	PASS	
EN 61000-4-6: 2009	Injected Current	A	PASS	
EN 61000-4-8: 2010	Power Frequency Magnetic Field	A	N/A	
EN 61000-4-11:2004	Volt. Interruptions Volt. Dips	B / C / C NOTE (3)	PASS	

NOTE:

- (1) "N/A" denotes test is not applicable in this Test Report
- (2) The power consumption of EUT is less than 75W and no Limits apply.
- (3) Voltage dip: >95% reduction – Performance Criteria **B**
 Voltage dip: 30% reduction – Performance Criteria **C**
 Voltage Interruption: >95% reduction – Performance Criteria **C**

2.1 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95** %.

A. Conducted Measurement :

Test Site	Method	Measurement Frequency Range	U, (dB)	NOTE
C01	ANSI	150 KHz ~ 30MHz	1.94	

B. Radiated Measurement :

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)	NOTE
OS02	ANSI	30MHz ~ 200MHz	V	3.82	
		30MHz ~ 200MHz	H	3.60	
		200MHz ~ 1,000MHz	V	3.86	
		200MHz ~ 1,000MHz	H	3.94	

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	FULL LOAD

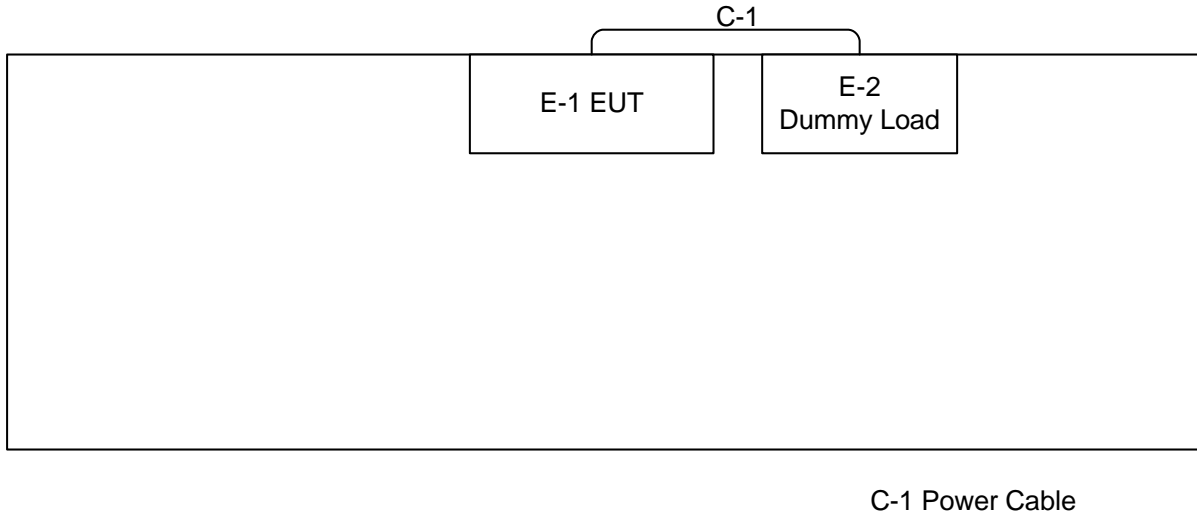
For Conducted Test	
Final Test Mode	Description
Mode 1	FULL LOAD

For Radiated Test	
Final Test Mode	Description
Mode 1	FULL LOAD

For Harmonics / Flicks Test	
Final Test Mode	Description
Mode 1	FULL LOAD

For EMS Test	
Final Test Mode	Description
Mode 1	FULL LOAD

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

3.1.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	8127-432	11/12/2011
2	Pulse Limiter	Agilent	11947A	3107A03668	11/12/2011
3	Test Cable	N/A	C01	N/A	11/12/2011
4	EMI Test Receiver	SCHWARZBECK MESS-ELEKTRONIK	FCKL1528	1528-184	11/12/2011

Remark: " N/A" denotes No Model No. , Serial No. or No Calibration specified.

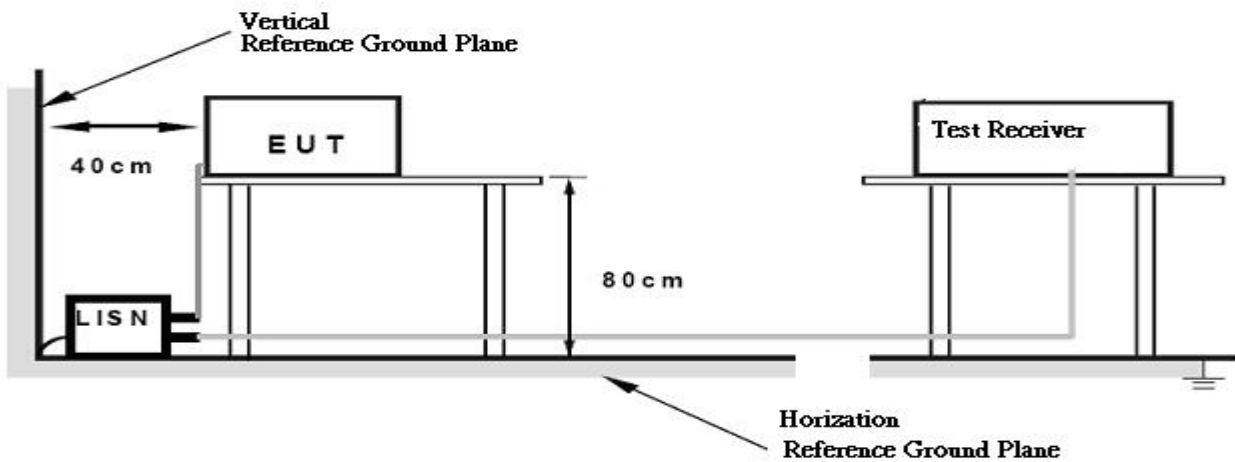
3.1.3 TEST PROCEDURE

- The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN at least 80 cm from nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.4 DEVIATION FROM TEST STANDARD

No deviation

3.1.5 TEST SETUP



3.1.6 EUT OPERATING CONDITIONS

The EUT exercise program used during radiated and/or conducted emission measurement was designed to exercise the various system components in a manner similar to a typical use.

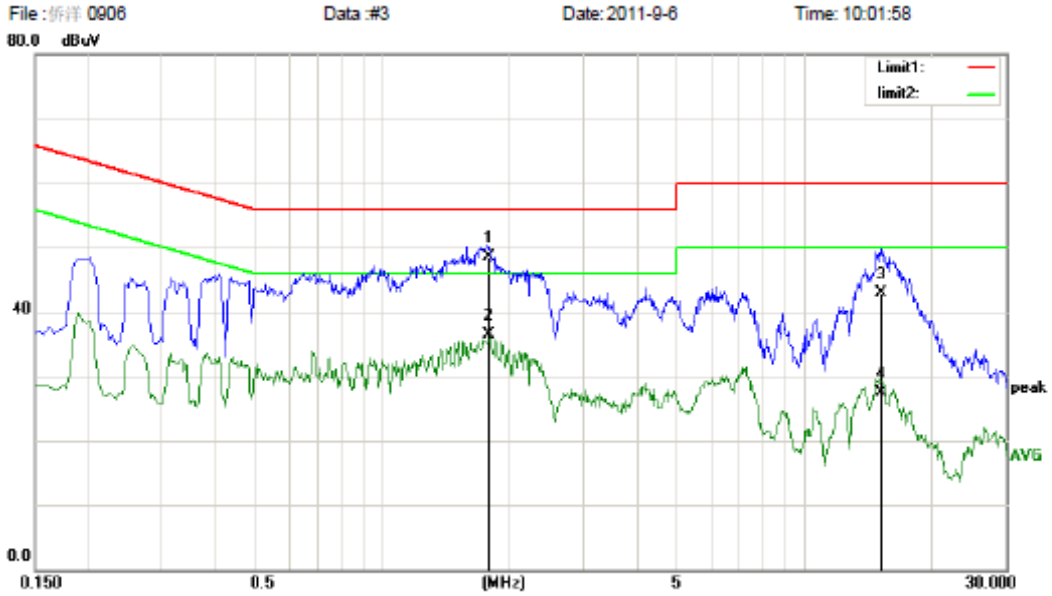
3.1.7 TEST RESULTS

EUT:	Switching Adaptor	Model No. :	S05-024-0100-02400G
Temperature:	26°C	Relative Humidity:	48 %
Pressure:	1008 hPa	Test Power :	AC 230V/50Hz
Test Mode :	Full Load		

Remark:

- (1) Reading in which marked as QP means measurements by using are Quasi-Peak Mode with Detector BW=9KHz; SPA setting in RBW=10KHz,VBW =10KHz, Swp. Time = 0.3 sec./MHz. Reading in which marked as AV means measurements by using are Average Mode with instrument setting in RBW=1MHz,VBW=10Hz, Swp. Time =0.3 sec./MHz.
- (2) All readings are QP Mode value unless otherwise stated AVG in column of 『Note』 . If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform.In this case, a " * " marked in AVG Mode column of Interference Voltage Measured.
- (3) Measuring frequency range from 150KHz to 30MHz.

Conducted Emission Measurement



Site :ATT Conducted Emission Test Site Phase: *N* Temperature: 26
 Limit: (CE)EN55022 class B_QP Power: AC 230V/50Hz Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dB	Over dB	Detector	Comment
1	*	1.7910	38.31	10.11	48.42	56.00	-7.58	QP	
2		1.7910	26.43	10.11	36.54	46.00	-9.46	AVG	
3		15.1929	32.69	10.17	42.86	60.00	-17.14	QP	
4		15.1929	17.34	10.17	27.51	50.00	-22.49	AVG	

Conducted Emission Measurement

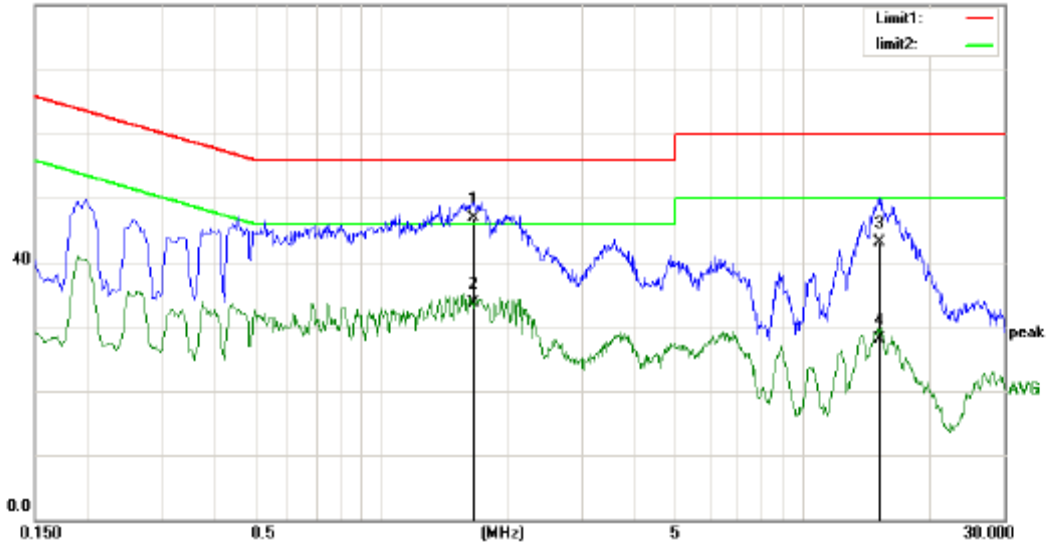
File : 拆样 0906

Data : #4

Date: 2011-9-6

Time: 10:04:36

80.0 dBuV



Site : ATT Conducted Emission Test Site Phase: *L1* Temperature: 26
 Limit: (CE)EN55022 class B_QP Power: AC 230V/50Hz Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dB	Over dB	Detector	Comment
1	*	1.6502	36.77	10.11	46.88	56.00	-9.12	QP	
2		1.6502	23.59	10.11	33.70	46.00	-12.30	AVG	
3		15.1759	33.00	10.17	43.17	60.00	-16.83	QP	
4		15.1759	17.97	10.17	28.14	50.00	-21.86	AVG	

EUT:	Switching Adaptor	Model No. :	S05-024-0240-01000G
Temperature:	26°C	Relative Humidity:	48 %
Pressure:	1008 hPa	Test Power :	AC 230V/50Hz
Test Mode :	Full Load		

Remark:

- (1) Reading in which marked as QP means measurements by using are Quasi-Peak Mode with Detector BW=9KHz; SPA setting in RBW=10KHz,VBW =10KHz, Swp. Time = 0.3 sec./MHz. Reading in which marked as AV means measurements by using are Average Mode with instrument setting in RBW=1MHz,VBW=10Hz, Swp. Time =0.3 sec./MHz.
- (2) All readings are QP Mode value unless otherwise stated AVG in column of 『Note』 . If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform.In this case, a “*” marked in AVG Mode column of Interference Voltage Measured.
- (3) Measuring frequency range from 150KHz to 30MHz.

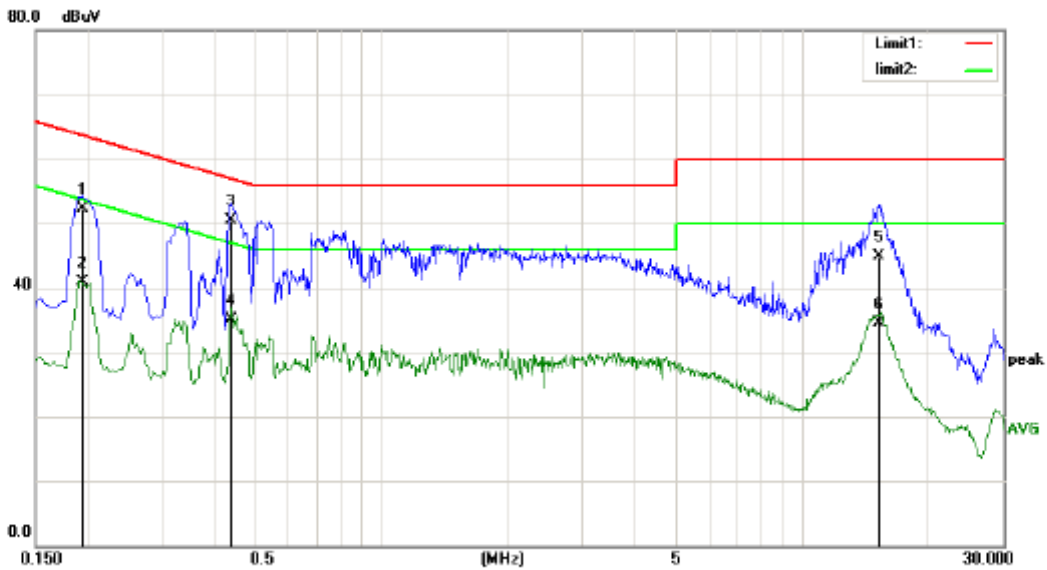
Conducted Emission Measurement

File : 侨洋 0906

Data :#5

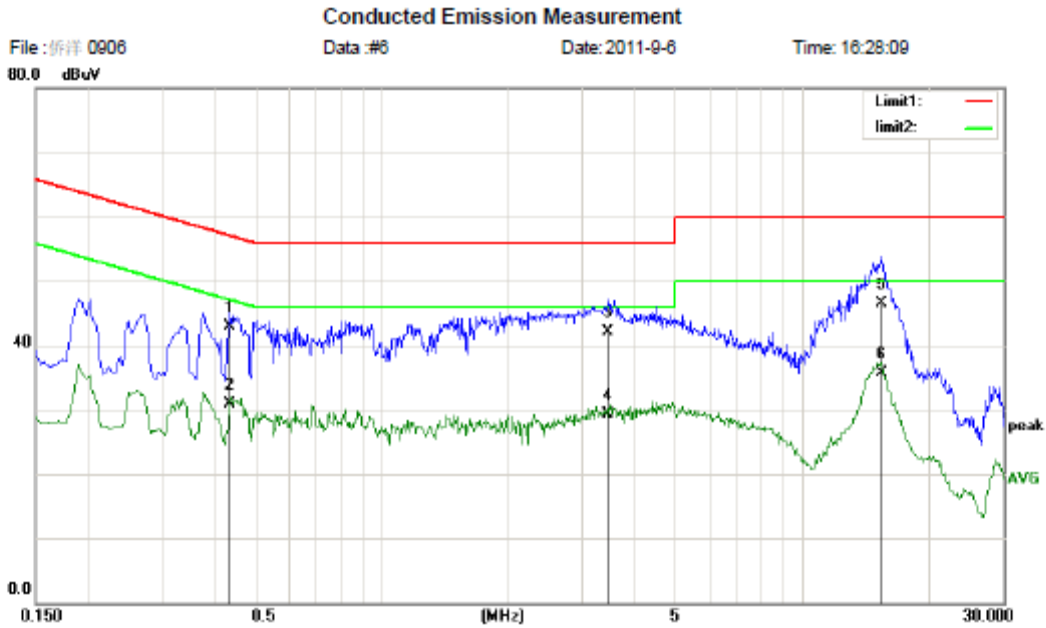
Date: 2011-9-8

Time: 16:25:07



Site :ATT Conducted Emission Test Site Phase: *N* Temperature: 26
 Limit: (CE)EN55022 class B_QP Power: AC 230V/50Hz Humidity: 60 %

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV	Limit dB	Over dB	Detector	Comment
1	0.1935	41.09	11.17	52.26	63.88	-11.62	QP	
2	0.1935	29.65	11.17	40.82	53.88	-13.06	AVG	
3 *	0.4383	40.28	10.26	50.54	57.09	-6.55	QP	
4	0.4383	24.89	10.26	35.15	47.09	-11.94	AVG	
5	15.1855	34.81	10.17	44.98	60.00	-15.02	QP	
6	15.1855	24.43	10.17	34.60	50.00	-15.40	AVG	



Site : ATT Conducted Emission Test Site Phase: *L1* Temperature: 26
 Limit: (CE)EN55022 class B_QP Power: AC 230V/50Hz Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dB	Over dB	Detector	Comment
1		0.4344	32.73	10.27	43.00	57.17	-14.17	QP	
2		0.4344	20.59	10.27	30.86	47.17	-16.31	AVG	
3		3.4372	31.98	10.14	42.12	56.00	-13.88	QP	
4		3.4372	19.08	10.14	29.22	46.00	-16.78	AVG	
5	*	15.3912	36.27	10.17	46.44	60.00	-13.56	QP	
6		15.3912	25.52	10.17	35.69	50.00	-14.31	AVG	

3.2 RADIATED EMISSION MEASUREMENT

3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT (Below 1000MHz)

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

Notes:

- (1) The limit for radiated test was performed according to as following:
CISPR 22/ FCC PART 15B /ICES-003.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80	60	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15B.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	50000
Above 1000	5 th harmonic of the highest frequency or 40 GHz, whichever is lower

3.2.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Log-Bicon Antenna	SCHWARZBECK	VuLB9168	9168-192	11/12/2011
2	Test Cable	N/A	10M_OS01	N/A	11/12/2011
3	Test Cable	N/A	C01-1/-2	N/A	11/12/2011
4	Pre-Amplifier	HP	8447D	2944A09491	11/29/2011
5	Spectrum Analyzer	HP	8591A	10201103	11/29/2011
6	Test Receiver	R&S	ESVS 10	825475/002	11/29/2011
7	Antenna Mast	N/A	N/A	N/A	N/A
8	Turn Table	N/A	N/A	N/A	N/A

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

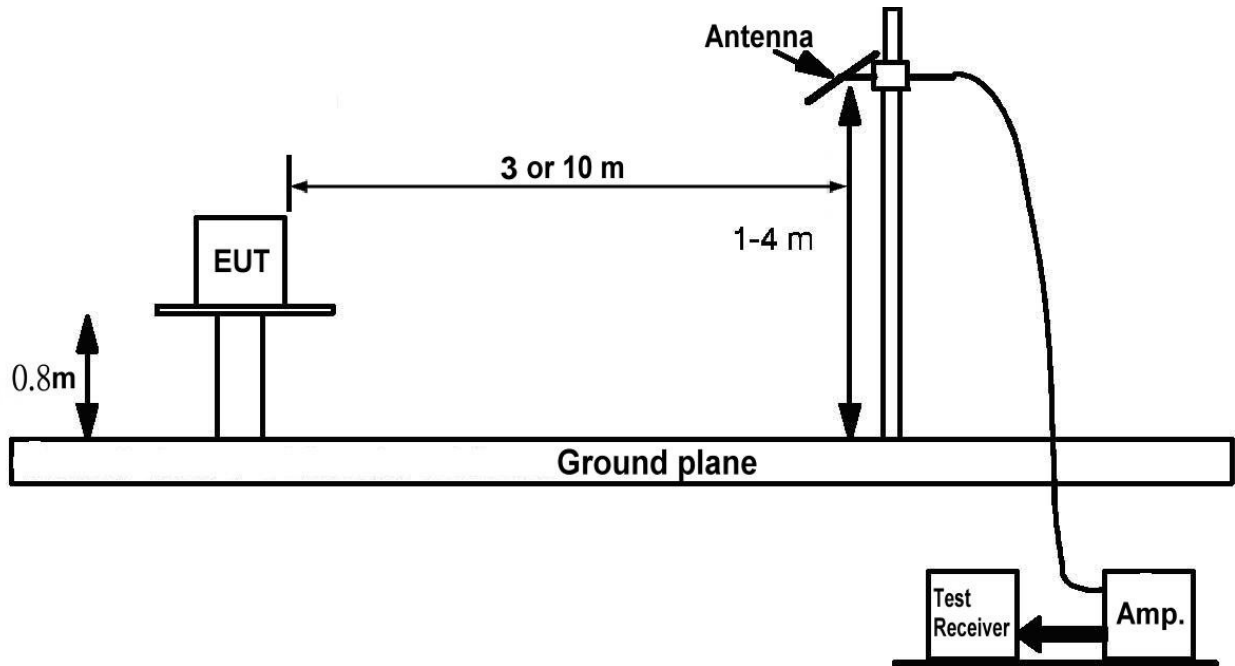
3.2.3 TEST PROCEDURE

- a. The measuring distance of at 10 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m or 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.2.4 DEVIATION FROM TEST STANDARD

No deviation

3.2.5 TEST SETUP



3.2.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

3.2.7 TEST RESULTS

EUT:	Switching Adaptor	Model No. :	S05-024-0100-02400G
Temperature:	26 °C	Relative Humidity:	48 %
Pressure:	1009 hPa	Test Power :	AC 230V/50Hz
Test Mode :	Full Load		

Remark:

- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz; SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = 0.3 sec./MHz.
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (3) Measuring frequency range from 30MHz to 1000MHz.
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table.

Radiated Emission Measurement

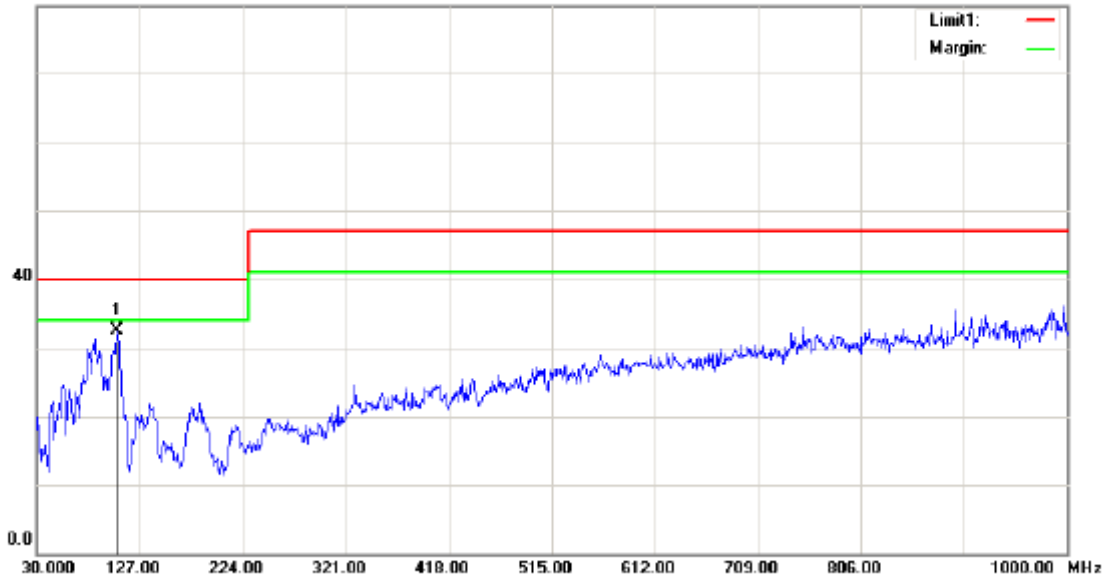
File : 侨洋 0915

Data : #7

Date: 2011-9-15

Time: 13:31:38

80.0 dBuV/m



Site : ATT Radiated Emission Test Site

Polarization: *Horizontal*

Temperature: 28

Limit: (RE)EN55022_Class B_3m

Power: AC 230V/50Hz

Humidity: 80 %

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB/m	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1 *	105.6600	48.91	-16.32	32.59	40.00	-7.41	QP			

Radiated Emission Measurement

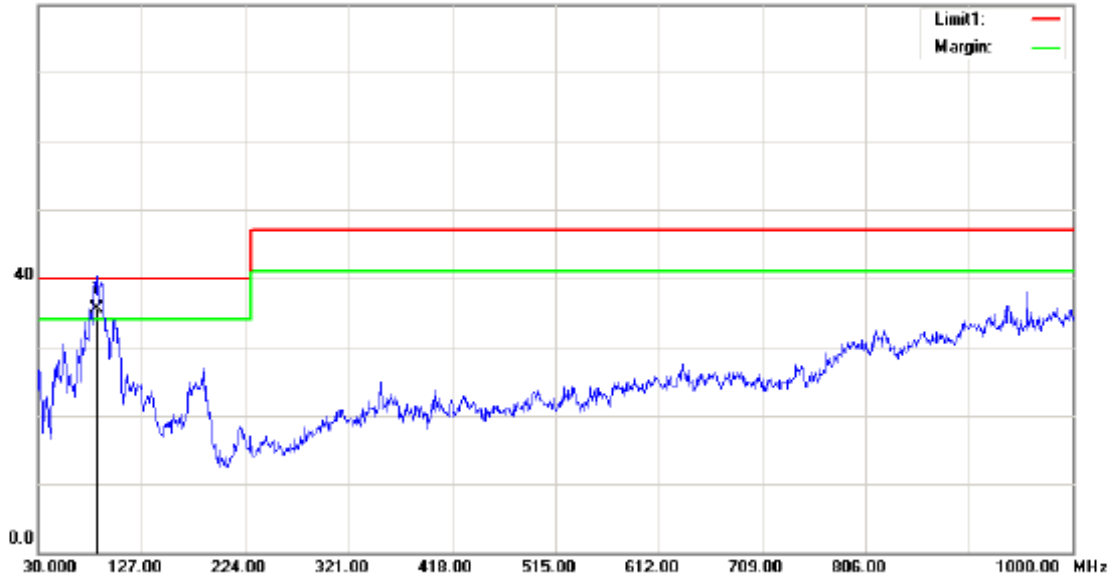
File : 侨洋 0915

Data : #8

Date: 2011-9-15

Time: 13:32:33

80.0 dBuV/m



Site : ATT Radiated Emission Test Site

Polarization: *Vertical*

Temperature: 26

Limit: (RE)EN55022_Class B_3m

Power: AC 230V/50Hz

Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	cm	degree	Comment
1	*	84.4030	47.24	-11.75	35.49	40.00	-4.51	QP		

EUT:	Switching Adaptor	Model No. :	S05-024-0240-01000G
Temperature:	26 °C	Relative Humidity:	48 %
Pressure:	1009 hPa	Test Power :	AC 230V/50Hz
Test Mode :	Full Load		

Remark:

- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz; SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = 0.3 sec./MHz.
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (3) Measuring frequency range from 30MHz to 1000MHz.
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not how in table.

Radiated Emission Measurement

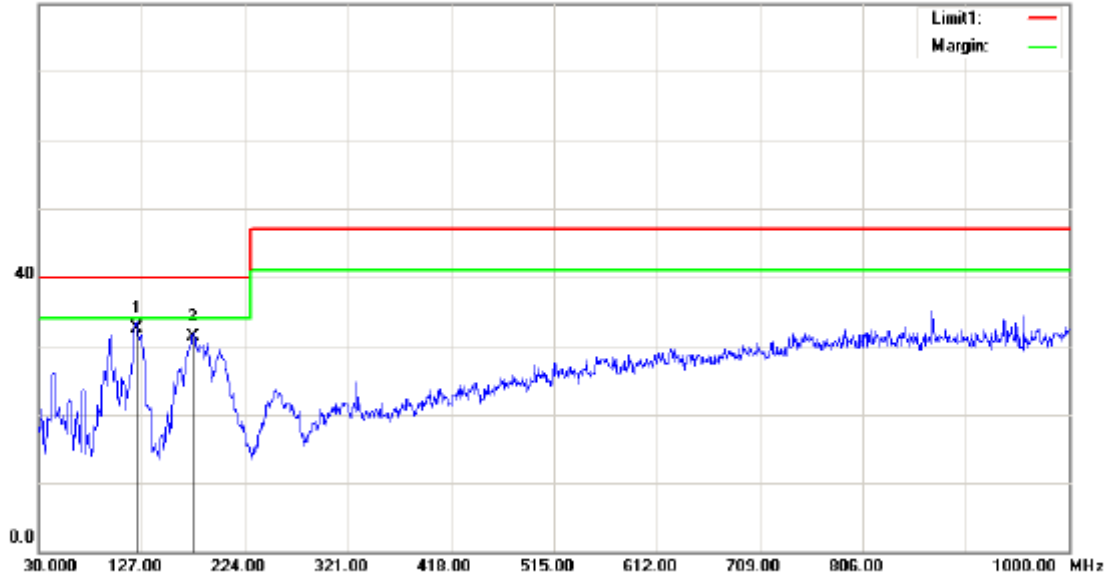
File : 侨洋 0908

Data : #1

Date: 2011-9-8

Time: 10:01:30

80.0 dBuV/m



Site : ATT Radiated Emission Test Site

Polarization: *Horizontal*

Temperature: 26

Limit: (RE)EN55022_Class B_3m

Power: AC 230V/50Hz

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	122.1500	48.20	-15.76	32.44	40.00	-7.56	QP		
2		175.5000	42.52	-11.16	31.36	40.00	-8.64	QP		

Radiated Emission Measurement

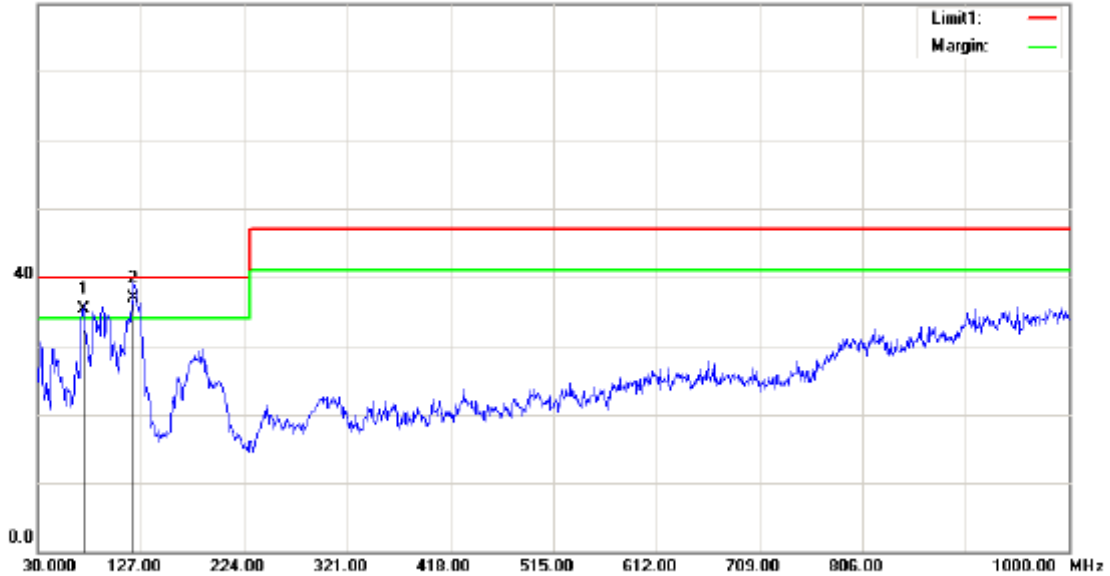
File : 侨洋 0906

Data : #2

Date: 2011-9-6

Time: 10:02:28

90.0 dBuV/m



Site :ATT Radiated Emission Test Site

Polarization: *Vertical*

Temperature: 26

Limit: (RE)EN55022_Class B_3m

Power: AC230V/50Hz

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB/m	Over dB	Antenna Height cm	Table Degree	Detector	Comment
1	!	72.6800	42.20	-6.89	35.31	40.00	-4.69			QP	
2	*	120.2100	44.86	-8.04	36.82	40.00	-3.18			QP	

3.3 HARMONICS CURRENT MEASUREMENT

Current Test Result Summary (Run time)			
EUT:	Switching Adaptor	Model No. :	S05-024-0240-01000G
Temperature:	26°C	Relative Humidity:	48 %
Pressure:	1009 hPa	Test Power :	AC 230V/50Hz
Highest parameter values during test:			

Remark: This rated power of EUT is under 75W, therefore it isn't specified in this standard.

3.4 VOLTAGE FLUCTUATION AND FLICKS MEASUREMENT

3.4.1 LIMITS OF VOLTAGE FLUCTUATION AND FLICKS MEASUREMENT

Tests	Limits		Descriptions
	IEC555-3	IEC/EN 61000-3-2	
Pst	≤ 1.0, Tp= 10 min.	≤ 1.0, Tp= 10 min.	Short Term Flicker Indicator
Plt	N/A	≤ 0.65, Tp=2 hr.	Long Term Flicker Indicator
dc	≤ 3 %	≤ 3.3 %	Relative Steady-State V-Chang
dmax	≤ 4 %	≤ 4 %	Maximum Relative V-change
d (t)	N/A	≤ 3.3% for > 500 ms	Relative V-change characteristic

3.4.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Harmonic & Flicker	California	PACS-1	72344	11/29/2011
2	Power Source	California	3001iX	56309	11/29/2011

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

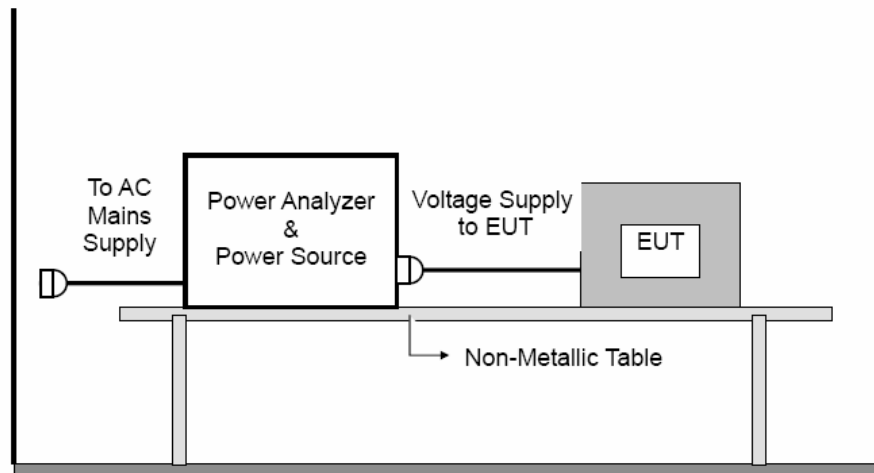
3.4.3 TEST PROCEDURE

- a. Harmonic Current Test:
 Test was performed according to the procedures specified in Clause 5.0 of IEC555-2 and/or Sub-clause 6.2 of IEC/EN 61000-3-2 depend on which standard adopted for compliance measurement.
- b. Fluctuation and Flickers Test:
 Tests was performed according to the Test Conditions/Assessment of Voltage Fluctuations specified in Clause 5.0/6.0 of IEC555-3 and/or Clause 6.0/4.0 of IEC/EN 61000-3-3 depend on which standard adopted for compliance measurement.
- c. All types of harmonic current and/or voltage fluctuation in this report are assessed by direct measurement using flicker-meter.
- d. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.4.4 DEVIATION FROM TEST STANDARD

No deviation

3.4.5 TESTSETUP



3.4.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

3.4.7 TEST RESULTS

EUT:	Switching Adaptor	Model No. :	S05-024-0240-01000G
Temperature:	25 °C	Relative Humidity:	56 %
Pressure:	1009 hPa	Test Power :	AC 230V/50Hz
Test Mode :	Full Load		

Pst_i and limit line

European Limits



10:12:18

Time is too short for Plt plot

Parameter values recorded during the test:

Vrms at the end of test (Volt): 229.67				
Highest dt (%):	0.00	Test limit (%):	3.30	PASS
Time(mS) > dt:	0.0	Test limit (mS):	500.0	PASS
Highest dc (%):	0.00	Test limit (%):	3.30	PASS
Highest dmax (%):	0.00	Test limit (%):	4.00	PASS
Highest Pst (10 min. period):	0.001	Test limit:	1.000	PASS
Highest Plt (2 hr. period):	0.001	Test limit:	0.650	PASS

4. EMC IMMUNITY TEST

4.1 STANDARD COMPLIANCE/SERVRITY LEVEL/CRITERIA

Tests Standard No.	TEST SPECIFICATION Level	Test Mode Test Ports	Perform. Criteria	Remark
1. ESD IEC/EN 61000-4-2	8KV air discharge 4KV contact discharge	Direct Mode	B	
	4KV HCP discharge 4KV VCP discharge	Indirect Mode	B	
2. RS IEC/EN 61000-4-3	80 MHz to 1000 MHz 3V/m(rms), 1 KHz, 80%, AM modulated	Enclosure	A	
	900 +/- 5MHz 3V/m(rms), Duty cycle 50% Repetition frequency:200Hz		B	
3. EFT/Burst IEC/EN 61000-4-4	1.0KV(peak) 5/50ns Tr/Th 5KHz Repetition Freq.	Switching Adaptor Port	B	
	0.5 KV(peak) 5/50ns Tr/Th 5KHz Repetition Freq.	CTL/Signal Data Line Port	B	N/A
4. Surges IEC/EN 61000-4-5	1 KV(5P/5N) 1.2/50(8/20) Tr/Th us	L-N	B	
	2 KV(5P/5N) 1.2/50(8/20) Tr/Th us	L-PE N-PE	B	
5 Injected Current IEC/EN 61000-4-6	0.15 MHz to 80 MHz 3V(rms), 1KHz 80%, AM Modulated 150Ω source impedance	CTL/Signal Port	A	N/A
	0.15 MHz to 80 MHz 3V(rms), 1KHz 80%, AM Modulated 150Ω source impedance	AC Power Port	A	
	0.15 MHz to 80 MHz 3V(rms), 1KHz 80%, AM Modulated 150Ω source impedance	DC Power Port	A	N/A
6. Power Frequency Magnetic Field IEC/EN 61000-4-8	50 Hz, 1A/m	Enclosure	A	N/A
7. Volt. Interruptions Volt. Dips IEC/EN 61000-4-11	Voltage dip > 95% / 30% Interruption > 95%	< 5% / 70% < 5%	B / C C	

* Remark:

(1) "N/A": denotes test is not applicable in this Test Report.

:

4.2 GENERAL PERFORMANCE CRITERIA

According to **EN55024:1998+A1:2001+A2:2003** standard, the general performance criteria as following:

Criterion A	The equipment shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.
Criterion B	After the test, the equipment shall continue to operate as intended without operator Intervention. No degradation of performance or loss of function is allowed, after the application of the phenomenon below a performance level specified by the manufacturer, when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is allowed. However, no change of operating state if stored data allowed to persist after the test. If the minimum performance level (or the permissible performance loss) is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.
Criterion C	Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacturer's instructions. Functions, and/or information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

4.3 GENERAL PERFORMANCE CRITERIA TEST SETUP

The EUT tested system was configured as the statements of **4.1.6** Unless otherwise a special operating condition is specified in the follows during the testing.

4.4 ESD TESTING

4.4.1 TEST SPECIFICATION

Basic Standard:	IEC/EN 61000-4-2
Discharge Impedance:	330 ohm / 150 pF
Required Performance	B
Discharge Voltage:	Air Discharge: 2kV/4kV/8kV (Direct) Contact Discharge: 2kV/4kV (Direct/Indirect)
Polarity:	Positive & Negative
Number of Discharge:	Air Discharge: min. 20 times at each test point Contact Discharge: min. 200 times in total
Discharge Mode:	Single Discharge
Discharge Period:	1 second minimum

4.4.2 MEASUREMENT INSTRUMENTS

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	ESD Simulator	Noiseken	ESS-2002	ESS0625214	11/29/2011

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

4.4.3 TEST PROCEDURE

The test generator necessary to perform direct and indirect application of discharges to the EUT in the following manner:

- a. Contact discharge was applied to conductive surfaces and coupling planes of the EUT.

During the test, it was performed with single discharges. For the single discharge time between successive single discharges was at least 1 second. The EUT shall be exposed to at least 200 discharges, 100 each at negative and positive polarity, at a minimum of four test points. One of the test points shall be subjected to at least 50 indirect discharges to the center of the front edge of the horizontal coupling plane. The remaining three test points shall each receive at least 50 direct contact discharges.

If no direct contact test points are available, then at least 200 indirect discharges shall be applied in the indirect mode. Test shall be performed at a maximum repetition rate of one discharge per second.

Vertical Coupling Plane (VCP):
The coupling plane, of dimensions 0.5m x 0.5m, is placed parallel to, and positioned at a distance 0.1m from, the EUT, with the Discharge Electrode touching the coupling plane.
The four faces of the EUT will be performed with electrostatic discharge.

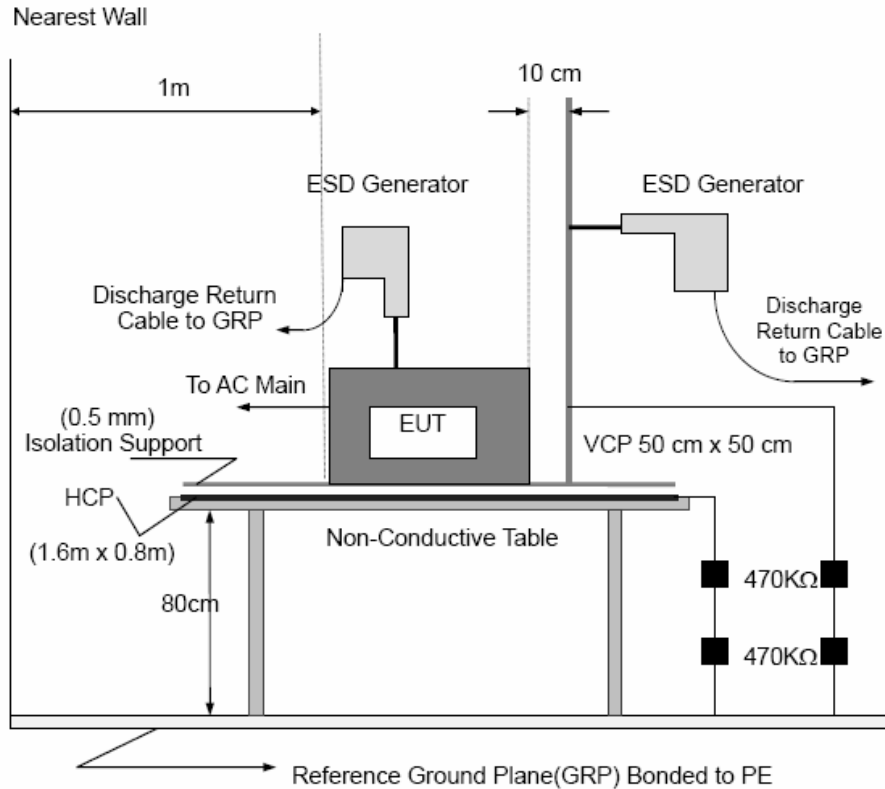
Horizontal Coupling Plane (HCP):
The coupling plane is placed under to the EUT. The generator shall be positioned vertically at a distance of 0.1m from the EUT, with the Discharge Electrode touching the coupling plane.
The four faces of the EUT will be performed with electrostatic discharge.
- b. Air discharges at insulation surfaces of the EUT.

It was at least ten single discharges with positive and negative at the same selected point.
- c. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.4.4 DEVIATION FROM TEST STANDARD

No deviation

4.4.5 TEST SETUP



Note:

TABLE-TOP EQUIPMENT

The configuration consisted of a wooden table 0.8 meters high standing on the Ground Reference Plane. The GRP consisted of a sheet of aluminum at least 0.25mm thick, and 2.5 meters square connected to the protective grounding system. A Horizontal Coupling Plane (1.6m x 0.8m) was placed on the table and attached to the GRP by means of a cable with 940k total impedance. The equipment under test, was installed in a representative system as described in section 7 of IEC /EN 61000-4-2, and its cables were placed on the HCP and isolated by an insulating support of 0.5mm thickness. A distance of 1-meter minimum was provided between the EUT and the walls of the laboratory and any other metallic structure.

FLOOR-STANDING EQUIPMENT

The equipment under test was installed in a representative system as described in section 7 of IEC/EN 61000-4-2, and its cables were isolated from the Ground Reference Plane by an insulating support of 0.1-meter thickness. The GRP consisted of a sheet of aluminum that is at least 0.25mm thick, and 2.5meters square connected to the protective grounding system and extended at least 0.5 meters from the EUT on all sides.

4.4.6 TEST RESULTS

EUT:	Switching Adaptor	Model No. :	S05-024-0240-01000G
Temperature:	23 °C	Relative Humidity:	51 %
Pressure:	1007 hPa	Test Power :	AC 230V/50Hz
Test Mode :	Full Load		

Mode	Air Discharge								Contact Discharge							
	2KV		4KV		8KV		12KV		2KV		4KV		6KV		8KV	
Location	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N
1	A	A	A	A	A	A			A	A	A	A				
2	A	A	A	A	A	A			A	A	A	A				
3	A	A	A	A	A	A										
4	A	A	A	A	A	A										
5	A	A	A	A	A	A										
6																
7																
8																
9																
Criteria	B								B							
Result	A								A							
Judgment	PASS								PASS							

Mode	HCP Discharge								VCP Discharge							
	2KV		4KV		6KV		8KV		2KV		4KV		6KV		8KV	
Location	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N
1	A	A	A	A					A	A	A	A				
2	A	A	A	A					A	A	A	A				
3	A	A	A	A					A	A	A	A				
4	A	A	A	A					A	A	A	A				
Criteria	B								B							
Result	A								A							
Judgment	PASS								PASS							

Note:

- 1) P/N denotes the Positive/Negative polarity of the output voltage.
- 2) Test condition:
Direct / Indirect (HCP/VCP) discharges: Minimum 50 times (Positive/Negative) at each point. Air discharges: Minimum 10 times (Positive/Negative) at each point.
- 3) Test location(s) in which discharge (Air and contact discharge) to be applied illustrated by photos shown in next page(s)
- 4) The Indirect (HCP/VCP) discharges description of test point as following:
1.left side 2.right side 3.front side 4.rear side
- 5) N/A - denotes test is not applicable in this test report
- 7) Criteria B: The EUT function loss during the test, but self-recoverable after the test.

4.5 RS TESTING

4.5.1 TEST SPECIFICATION

Basic Standard:	IEC/EN 61000-4-3
Required Performance	A
Frequency Range:	80 MHz - 1000 MHz
Field Strength:	3 V/m
Modulation:	1kHz Sine Wave, 80%, AM Modulation
Frequency Step:	1 % of fundamental
Polarity of Antenna:	Horizontal and Vertical
Test Distance:	3 m
Antenna Height:	1.5 m
Dwell Time:	at least 3 seconds

4.5.2 MEASUREMENT INSTRUMENTS

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Signal Generator	R&S	SMT 06	832080/007	11/29/2011
2	Power Amplifier(RS)	M2S	AC8113-800/25 0A	9904-113	11/29/2011
3	Antenna(500W)	MESS-ELEKTRONIK	VULB9161	4022	11/29/2011

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

4.5.3 TEST PROCEDURE

The EUT and support equipment, which are placed on a table that is 0.8 meter above ground and the testing was performed in a fully-anechoic chamber.

The testing distance from antenna to the EUT was 3 meters.

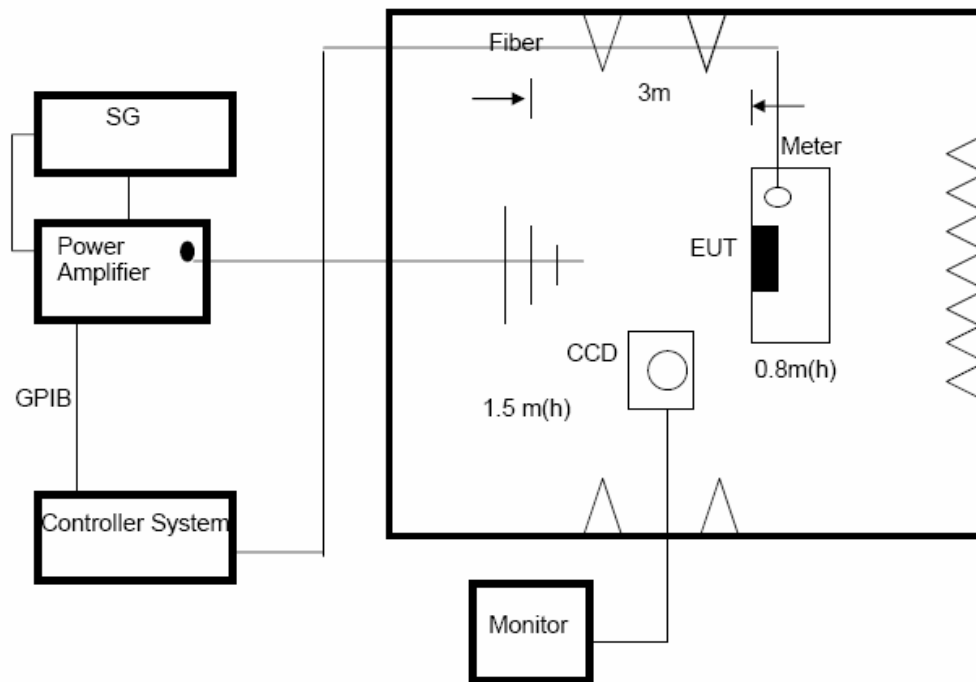
The other condition as following manner:

- a. The field strength level was 3V/m.
- b. The frequency range is swept from 80 MHz to 1000 MHz, with the signal 80%amplitude modulated with a 1kHz sine wave. The rate of sweep did not exceed 1.5×10^{-3} decade/s. Where the frequency range is swept incrementally, the step size was 1% of fundamental.
- c. The dwell time at each frequency shall be not less than the time necessary for the EUT to be able to respond.
- d. The test was performed with the EUT exposed to both vertically and horizontally polarized fields on each of the four sides.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation

4.5.5 TEST SETUP



Note:

TABLE-TOP EQUIPMENT

The EUT installed in a representative system as described in section 7 of IEC/EN 61000-4-3 was placed on a non-conductive table 0.8 meters in height. The system under test was connected to the power and signal wire according to relevant installation instructions.

FLOOR-STANDING EQUIPMENT

The EUT installed in a representative system as described in section 7 of IEC/EN 61000-4-3 was placed on a non-conductive wood support 0.1 meters in height. The system under test was connected to the power and signal wire according to relevant installation instructions.

4.5.6 TEST RESULTS

EUT:	Switching Adaptor	Model No. :	S05-024-0240-01000G
Temperature:	26 °C	Relative Humidity:	57 %
Pressure:	1004 hPa	Test Power :	AC 230V/50Hz
Test Mode :	Full Load		

Frequency Range (MHz)	RF Field Position	R.F. Field Strength	Azimuth	Perform. Criteria	Results	Judgment
80MHz - 1000MHz	H / V	3 V/m (rms) AM Modulated 1000Hz, 80%	0	A	A	PASS
			90			
			180			
			270			

Note:

- 1) P/N denotes the Positive/Negative polarity of the output voltage.
- 2) N/A - denotes test is not applicable in this test report.
- 3) Criteria A: There was no change operated with initial operating during the test.
- 4) Criteria B: The EUT function loss during the test, but self-recoverable after the test.
- 5) Criteria C: The system shut down during the test.

4.6 EFT/BURST TESTING

4.6.1 TEST SPECIFICATION

Basic Standard:	IEC/EN 61000-4-4
Required Performance	B
Test Voltage:	Power Line: 1 kV Signal/Control Line: 0.5 KV
Polarity:	Positive & Negative
Impulse Frequency:	5 kHz
Impulse Wave shape :	5/50 ns
Burst Duration:	15 ms
Burst Period:	300 ms
Test Duration:	Not less than 1 min.

4.6.2 MEASUREMENT INSTRUMENTS

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMC Immunity Test System	Thermo	EMCPRO PLUS	0502214	11/29/2011

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

4.6.3 TEST PROCEDURE

The EUT and support equipment, are placed on a table that is 0.8 meter above a metal ground plane measured 1m*1m min. and 0.65mm thick min.

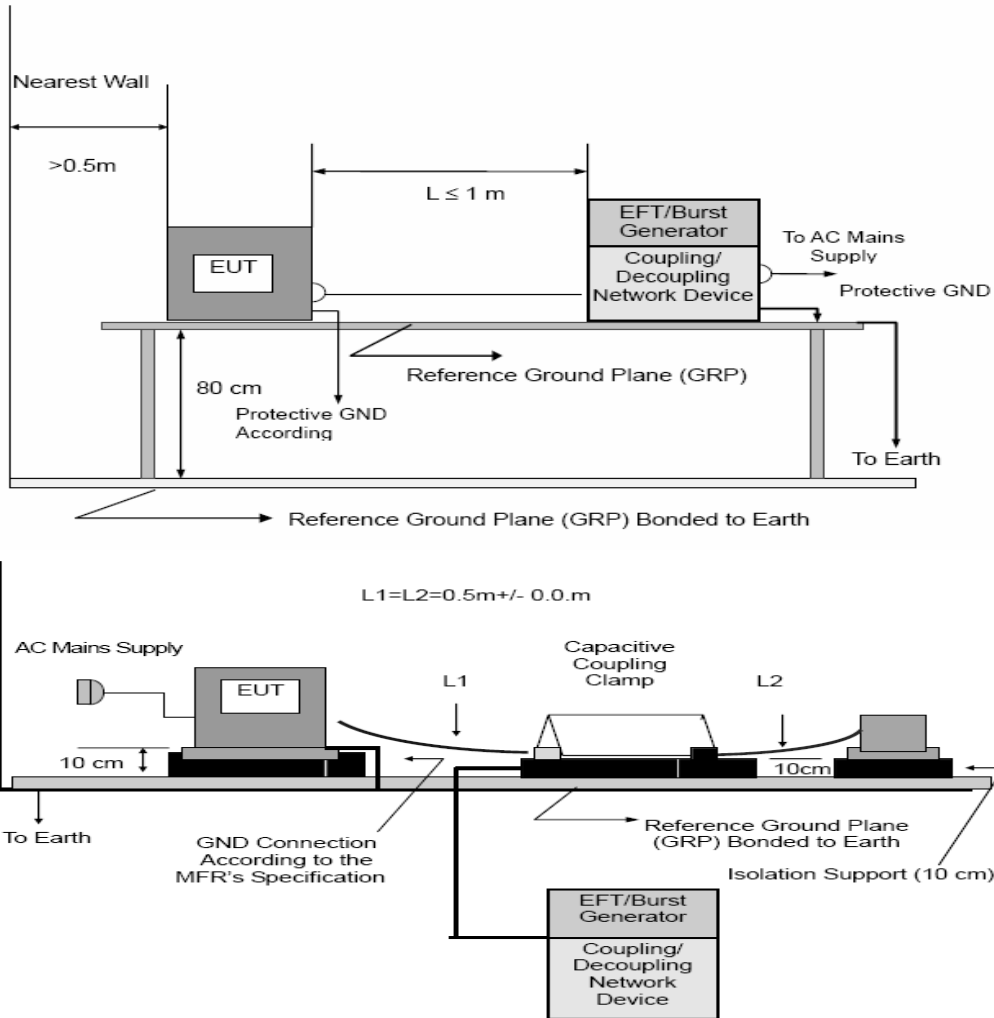
The other condition as following manner:

- a. The length of power cord between the coupling device and the EUT should not exceed 1 meter.
- b. Both positive and negative polarity discharges were applied.
- c. The duration time of each test sequential was 1 minute
- d. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 TEST SETUP



Note:

TABLE-TOP EQUIPMENT

The configuration consisted of a wooden table (0.8m high) standing on the Ground Reference Plane. The GRP consisted of a sheet of aluminum (at least 0.25mm thick and 2.5m square) connected to the protective grounding system. A minimum distance of 0.5m was provided between the EUT and the walls of the laboratory or any other metallic structure.

FLOOR-STANDING EQUIPMENT

The EUT installed in a representative system as described in section 7 of IEC/EN 61000-4-4 and its cables, were isolated from the Ground Reference Plane by an insulating support that is 0.1-meter thick. The GRP consisted of a sheet of aluminum (at least 0.25mm thick and 2.5m square) connected to the protective grounding system.

4.6.6 TEST RESULTS

EUT:	Switching Adaptor	Model No. :	S05-024-0240-01000G
Temperature:	26 °C	Relative Humidity:	57 %
Pressure:	1004 hPa	Test Power :	AC 230V/50Hz
Test Mode :	Full Load		

Mode	(X) AC Power Line		() DC Power Line		() Signal/Control Line	
Test Level	1KV		0.5KV		0.5KV	
Port(s)	Polarity	Results	Polarity	Results	Polarity	Results
Line (L)	P	A	P		P	
	N	A	N		N	
Neutral (N)	P	A	P		P	
	N	A	N		N	
Ground (PE)	P		P		P	
	N		N		N	
Signal/Control Line	P		P		P	
	N		N		N	
Criteria	B		B		B	
Result	A		N/A		N/A	
Judgment	PASS		N/A		N/A	

Note:

- 1) P/N denotes the Positive/Negative polarity of the output voltage.
- 2) N/A - denotes test is not applicable in this test report
- 3) Criteria A: There was no change operated with initial operating during the test.
- 4) Criteria B: The EUT function loss during the test, but self-recoverable after the test.
- 5) Criteria C: The system shut down during the test.

4.7 SURGE TESTING

4.7.1 TEST SPECIFICATION

Basic Standard:	IEC/EN 61000-4-5
Required Performance	B
Wave-Shape:	Combination Wave 1.2/50 us Open Circuit Voltage 8 /20 us Short Circuit Current
Test Voltage:	Power Line: 0.5 kV, 1 kV, 2 kV
Surge Input/Output:	L1-L2, L1-PE, L2-PE
Generator Source:	2 ohm between networks
Impedance:	12 ohm between network and ground
Polarity:	Positive/Negative
Phase Angle:	0 /90/180/270
Pulse Repetition Rate:	1 time / min. (maximum)
Number of Tests:	5 positive and 5 negative at selected points

4.7.2 MEASUREMENT INSTRUMENTS

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMC Immunity Test System	Thermo	EMCPRO PLUS	0502214	11/29/2011

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

4.7.3 TEST PROCEDURE

a. For EUT Switching Adaptor:

The surge is to be applied to the EUT Switching Adaptor terminals via the capacitive coupling network. Decoupling networks are required in order to avoid possible adverse effects on equipment not under test that may be powered by the same lines, and to provide sufficient decoupling impedance to the surge wave. The power cord between the EUT and the coupling/decoupling networks shall be 2meters in length (or shorter).

b. For test applied to unshielded unsymmetrically operated interconnection lines of EUT:

The surge is applied to the lines via the capacitive coupling. The coupling /decoupling networks shall not influence the specified functional conditions of the EUT. The interconnection line between the EUT and the coupling/decoupling networks shall be 2 meters in length (or shorter).

c. For test applied to unshielded symmetrically operated interconnection /telecommunication lines of EUT:

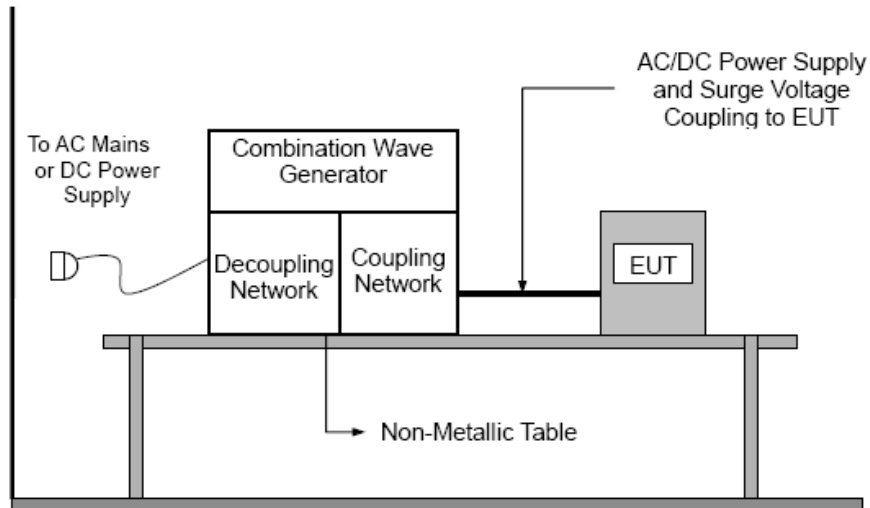
The surge is applied to the lines via gas arrestors coupling. Test levels below the ignition point of the coupling arrester cannot be specified. The interconnection line between the EUT and the coupling/decoupling networks shall be 2 meters in length (or shorter).

d. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.7.4 DEVIATION FROM TEST STANDARD

No deviation

4.7.5 TEST SETUP



4.7.6 TEST RESULTS

EUT:	Switching Adaptor	Model No. :	S05-024-0240-01000G
Temperature:	26 °C	Relative Humidity:	57 %
Pressure:	1004 hPa	Test Power :	AC 230V/50Hz
Test Mode :	Full Load		

Wave Form EUT Ports Tested	1.2/50(8/20)Ti/Th us						Criteria	Judgment
	Polarity	Phase	Voltage					
			0.5kV	1kV	1.5kV	2kV		
L - N	+/-	0°	A	A			B	PASS
	+/-	90°	A	A				
	+/-	180°	A	A				
	+/-	270°	A	A				
L - PE	+/-	0°					B	N/A
	+/-	90°						
	+/-	180°						
	+/-	270°						
N - PE	+/-	0°					B	N/A
	+/-	90°						
	+/-	180°						
	+/-	270°						
Signal Line (N/A)	+/-	0°					B	N/A
	+/-	90°						
	+/-	180°						
	+/-	270°						
Signal Line (N/A)	+/-	0°					B	N/A
	+/-	90°						
	+/-	180°						
	+/-	270°						

Note:

- 1) P/N denotes the Positive/Negative polarity of the output voltage.
- 2) Polarity and Numbers of Impulses: 5 Pst / Ngt at each tested mode
- 3) N/A - denotes test is not applicable in this Test Report
- 4) All voltages of the lower levels shall be satisfied

4.8 INJECTION CURRENT TESTING

4.8.1 TEST SPECIFICATION

Basic Standard:	IEC/EN 61000-4-6
Required Performance	A
Frequency Range:	0.15 MHz - 80 MHz
Field Strength:	3 Vr.m.s.
Modulation:	1kHz Sine Wave, 80%, AM Modulation
Frequency Step:	1 % of fundamental
Dwell Time:	at least 3 seconds

4.8.2 MEASUREMENT INSTRUMENTS

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Signal Generator	IFR	2023A	202301/368	11/29/2011
2	Power Amplifier(CS)	M2S	A0122-250	9902-111	11/29/2011
3	CDN	MEB	M3	13389	11/29/2011

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

4.8.3 TEST PROCEDURE

The EUT and support equipment, are placed on a table that is 0.8 meter above a metal ground plane measured 1m*1m min. and 0.65mm thick min.

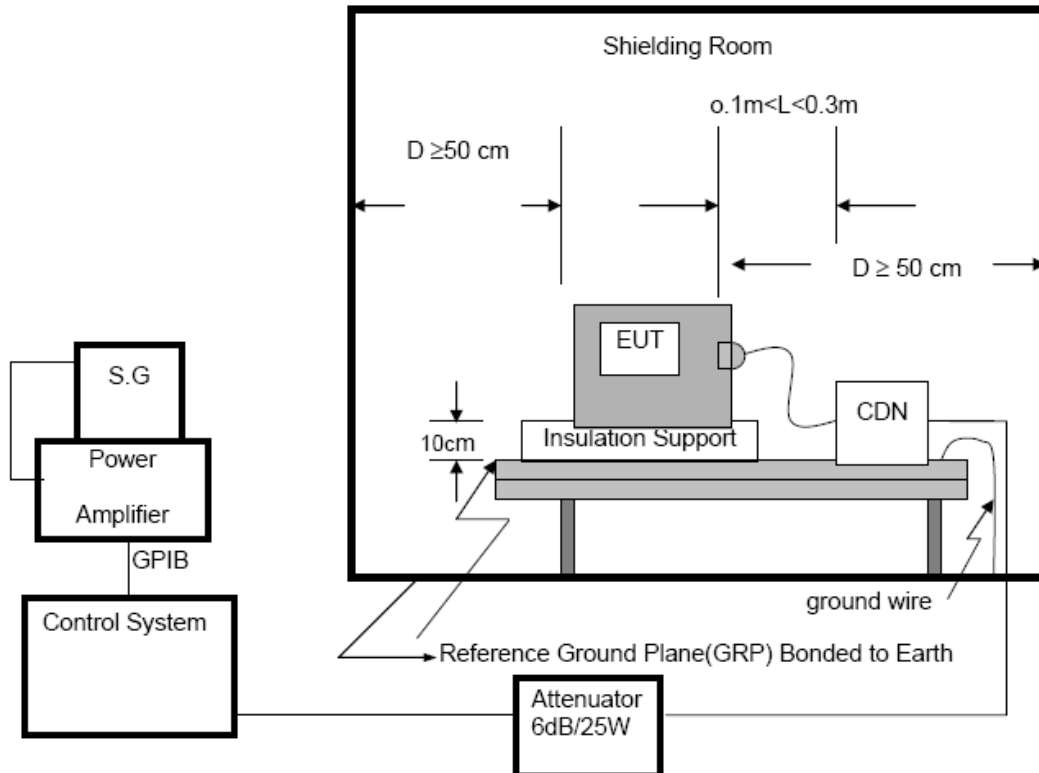
The other condition as following manner:

- a. The field strength level was 3V.
- b. The frequency range is swept from 150 KHz to 80 MHz, with the signal 80%amplitude modulated with a 1kHz sine wave. The rate of sweep did not exceed 1.5×10^{-3} decade/s. Where the frequency range is swept incrementally, the step size was 1% of fundamental.
- c. The dwell time at each frequency shall be not less than the time necessary for the EUT to be able to respond.
- d. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.8.4 DEVIATION FROM TEST STANDARD

No deviation

4.8.5 TEST SETUP



For the actual test configuration, please refer to the related Item –EUT Test Photos.

NOTE:

FLOOR-STANDING EQUIPMENT

The equipment to be tested is placed on an insulating support of 0.1 meters height above a ground reference plane. All relevant cables shall be provided with the appropriate coupling and decoupling devices at a distance between 0.1 meters and 0.3 meters from the projected geometry of the EUT on the ground reference plane.

4.8.6 TEST RESULTS

EUT:	Switching Adaptor	Model No. :	S05-024-0240-01000G		
Temperature:	26 °C	Relative Humidity:	57 %		
Pressure:	1004 hPa	Test Power :	AC 230V/50Hz		
Test Mode :	Full Load				
Test Ports (Mode)	Freq. Range MHz)	Field Strength	Perform. Criteria	Results	Judgment
Input/ Output AC. Power Port	0.15 ---80	3V(rms) AM Modulated 1000Hz, 80%	A	A	PASS
Input/ Output DC. Power Port	0.15 --- 80		A	N/A	N/A
Signal Line (N/A)	0.15 --- 80		A	N/A	N/A
Signal Line (N/A)	0.15 --- 80		A	N/A	N/A

Note:

- 1) P/N denotes the Positive/Negative polarity of the output voltage.
- 2) N/A - denotes test is not applicable in this Test Report.

4.9 VOLTAGE INTERRUPTION/DIPS TESTING

4.9.1 TEST SPECIFICATION

Basic Standard:	IEC/EN 61000-4-11
Required Performance:	B (For >95% Voltage Dips) C (For 30% Voltage Dips) C (For >95% Voltage Interruptions)
Test Duration Time:	Minimum three test events in sequence
Interval between Event:	Minimum ten seconds
Phase Angle:	0°/45°/90°/135°/180°/225°/270°/315°/360°
Test Cycle:	3 times

4.9.2 MEASUREMENT INSTRUMENTS

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMC Immunity Test System	Thermo	EMCPRO PLUS	0502214	11/27/2011

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

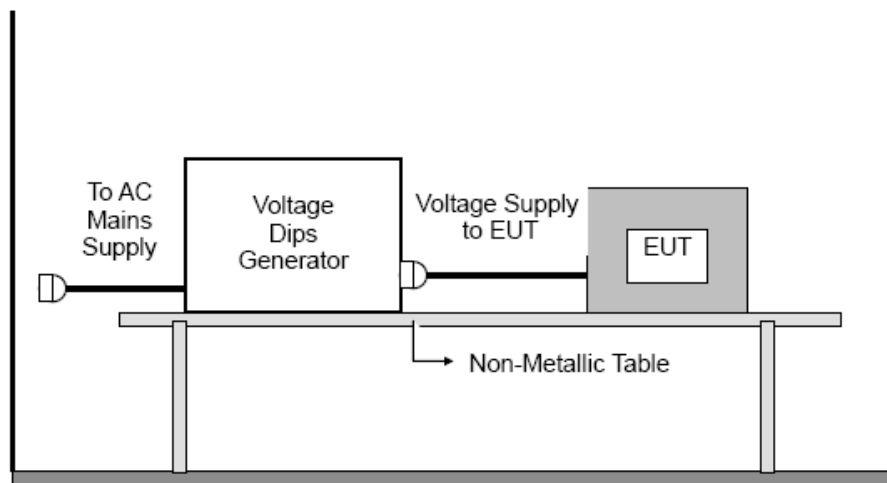
4.9.3 TEST PROCEDURE

The EUT shall be tested for each selected combination of test levels and duration with a sequence of three dips/interruptions with intervals of 10 s minimum (between each test event). Each representative mode of operation shall be tested. Abrupt changes in supply voltage shall occur at zero crossings of the voltage waveform.

4.9.4 DEVIATION FROM TEST STANDARD

No deviation

4.9.5 TEST SETUP



For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.9.6 TEST RESULTS

EUT:	Switching Adaptor	Model No. :	S05-024-0240-01000G
Temperature:	26 °C	Relative Humidity:	48%
Pressure:	1004hPa	Test Power :	AC 230V/50Hz
Test Mode :	Full Load		

Voltage Reduction	Periods	Perform Criteria	Results	Judgment
Voltage dip >95%	0.5	B	A	PASS
Voltage dip 30%	25	C	A	PASS
Interruption >95%	250	C	C	PASS

Note:

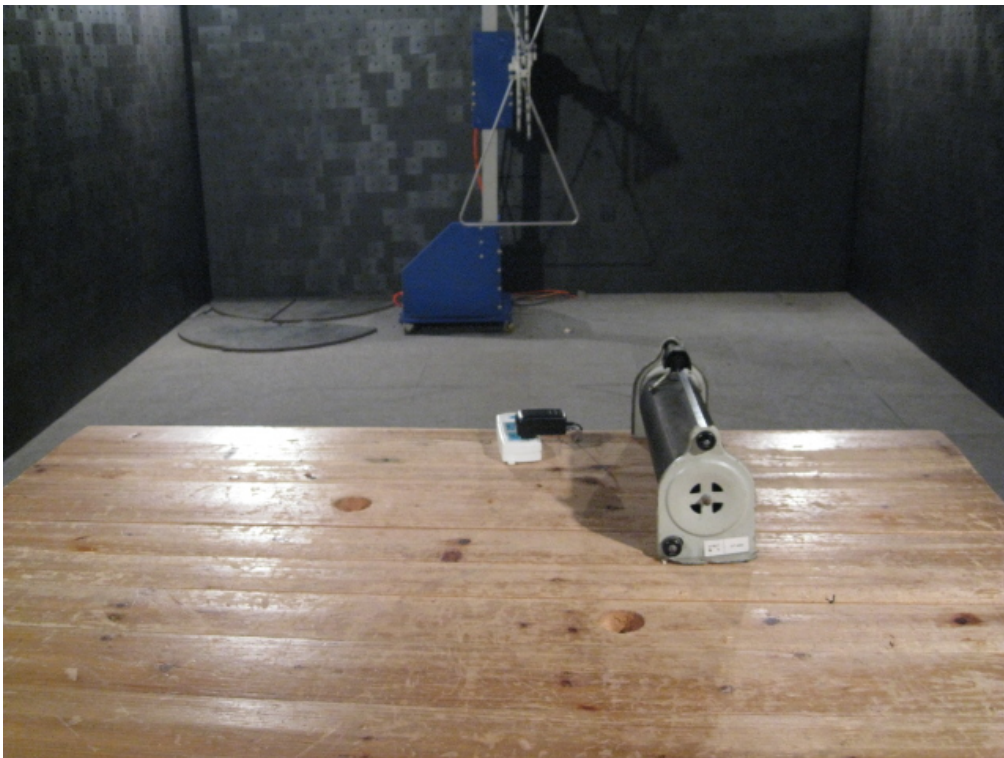
- 1) P/N denotes the Positive/Negative polarity of the output voltage.
- 2). N/A - denotes test is not applicable in this test report.

5. EUT TEST PHOTO

Conducted Measurement Photos



Radiated Measurement Photos



ESD Measurement Photos



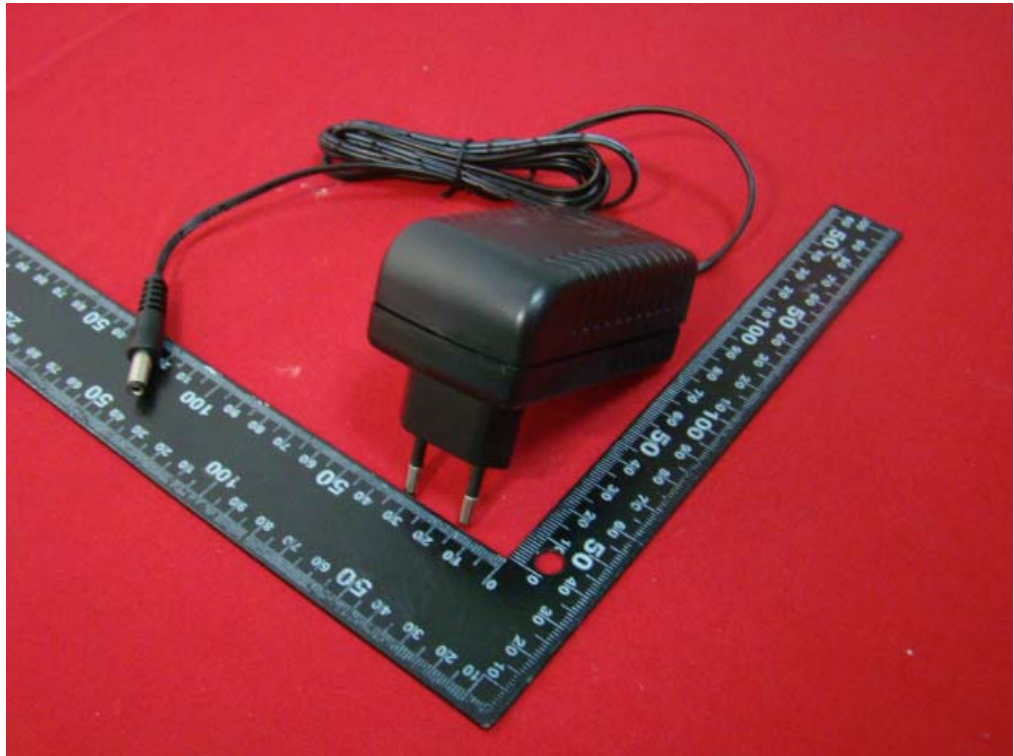
Surge Measurement Photos



EUT Photo

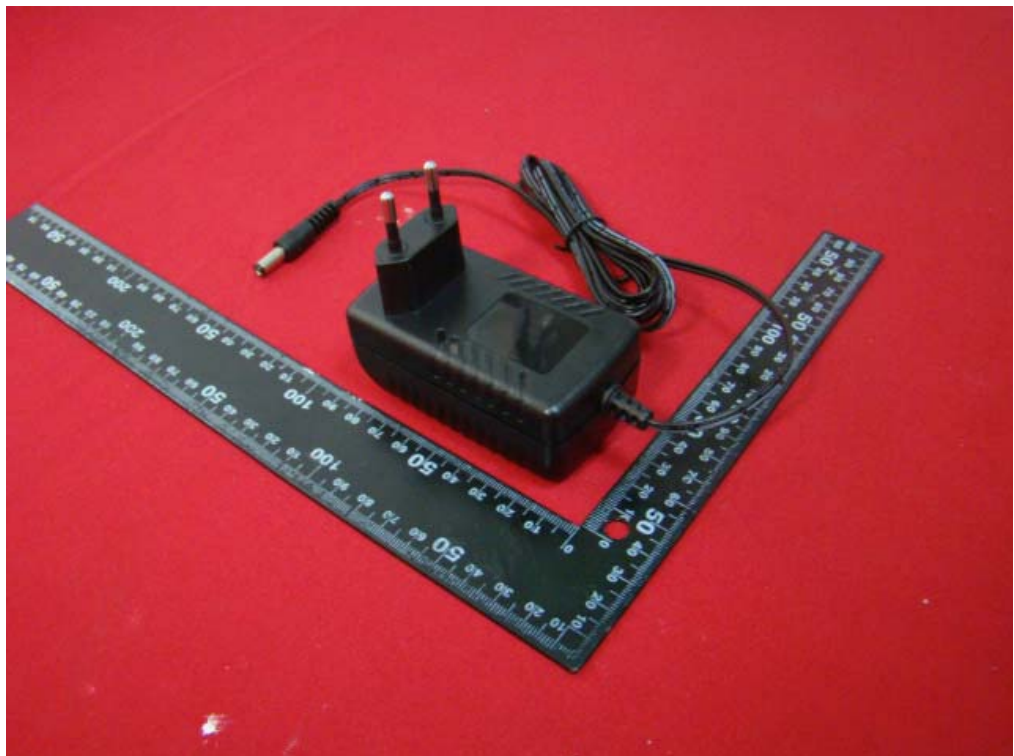
View:

- general
- front
- rear
- right
- left
- top
- bottom



View:

- general
- front
- rear
- right
- left
- top
- bottom



View:

general

front

rear

right

left

top

bottom



View:

general

front

rear

right

left

top

bottom



View:

general

front

rear

right

left

top

bottom



View:

general

front

rear

right

left

top

bottom

