Declaration of Conformity

We. Manufacturer/Importer

GlobTek Inc.

186 Veterans Dr Northvale, NJ 07647/USA

declare that the product

Power Adapter

GT-41062-18x-C.E-ZZ

(X=05~24; ZZ=T2, T3, T3A)

Is in conformity with

(Reference to the specification under which conformity is declared)

in accordance with 89/336 EEC-EMC Directive

☐ **EN55011**	Limits and methods of measurement of radio disturbance characteristics of industrial, scientific and medical (ISM) high frequency equipment	☒ **EN61000-3-2**	Disturbances in supply systems caused by household appliances and similar electrical equipment “Harmonics”
☐ **EN55013**	Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment	☒ **EN61000-3-3**	Disturbances in supply systems caused by household appliances and similar electrical equipment “Voltage fluctuations’
☐ **EN55014-1**	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 1: Emission – Product family standard	☐ **EN61000-6-1**	Electromagnetic compatibility (EMC) – Part 6-1: Generic standards – Immunity for residential, commercial and light-industrial environments
☐ **EN55015**	Limits and methods of measurement of radio disturbance characteristics of fluorescent lamps and luminaries	☐ **EN61000-6-2**	Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity for industrial environments
☐ **EN55020**	Sound and television broadcast receivers and associated equipment – Immunity characteristics – Limits and methods of measurement	☐ **EN61000-6-3**	Electromagnetic compatibility (EMC) – Part 6-3: Generic standards – Emission standard for residential, commercial and light industrial environments
☒ **EN55022**	Limits and methods of measurement of radio disturbance characteristics of information technology equipment	☐ **EN61000-6-4**	Electromagnetic compatibility (EMC) – Part 6-4: Generic standards – Emission standard for industrial environments
☐ **EN50130-4**	Alarm systems – Part 4: Electromagnetic compatibility – Product family standard: Immunity requirements for components of fire, intruder and social alarm systems.	☐ **EN55014-2**	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 2: Immunity – Product family standard
☐ **EN50091-2**	EMC requirements for uninterruptible power systems (UPS)	☐ **EN60601-1-2**	Medical Electrical Equipment
		☒ **EN55024**	Information technology equipment – Immunity characteristics – Limits and methods of measurement
☒ **EN61204-3**	Low voltage power supplies, d.c. output Part 3: Electromagnetic compatibility (EMC)		

Manufacturer/Importer

Signature: _____

(stamp) Date: _____ Name: _____

Test Report

(Declaration of Conformity)

for

Electromagnetic Compatibility

of

E.U.T.: **POWER ADAPTER**

Trade Name: GlobTek

Model Number: GT-41062-18x-C.E-ZZ
(x=05~24; ZZ=T2, T3, T3A)

Prepared for

GlobTek, Inc.

186 Veterans Dr Northvale, NJ 07647/USA
TEL: (201) 784 1000

FAX: (201) 784 0111

Prepared by

Interocean EMC Technology Corp.
No.5-2, Lin 1, Tin-Fu Tsun, Lin-Kou Hsiang,
Taipei County, Taiwan 244, R.O.C.
TEL.: +886 2 2600 6861
FAX.: +886 2 2600 6859

Remark:
The test report consists of ***108*** pages in total. It shall not be reproduced except in full, without the written approval of IETC. This document may be altered or revised by IETC only, and shall be noted in the revision section of the document. The test results in the report only to the tested sample.

Table of Contents

Verification of Compliance

Applicant:	**GlobTek, Inc.**
Manufacturer:	**GlobTek, Inc.**
EUT Description:	POWER ADAPTER
Model No.:	GT-41062-18x-C.E-ZZ (x=05~24; ZZ=T2, T3, T3A)
Serial No.:	N/A
Tested Power Supply:	230Vac, 50Hz
Date of Final Test:	Nov. 03, 2004

Measurement Procedures and Standards Used :

Emission:
- ☒ EN 55022:1998+A1: 2000
- ☒ EN 61000-3-2: 2000
- ☒ EN 61000-3-3:1995 + A1: 2001

Immunity:
- ☒ EN 55022
- ☒ IEC 61000-4-2
- ☒ IEC 61000-4-3
- ☒ IEC 61000-4-4
- ☒ IEC 61000-4-5
- ☒ IEC 61000-4-6
- ☐ IEC 61000-4-8
- ☒ IEC 61000-4-11

- ☒ EN 61204-3:2000
- ☒ EN 61000-4-2:1995+A1: 1998
- ☒ EN 61000-4-3:1996+A1: 1998
- ☒ EN 61000-4-4:1995
- ☒ EN 61000-4-5:1995
- ☒ EN 61000-4-6:1996+A1: 1997
- ☒ EN 61000-4-11:1994

The device described above was tested by Interocean EMC Technology Corporation 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 Interocean EMC Technology Corp 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 Interocean EMC Technology Corporation.

Report Issued: 2005/09/13

Test GlobTekineer: Isaac Lee 2005/09/13 Isaac Lee

Checked: Jam Cheng 2005 09/13 Jam Cheng

Approved: Mike Huang 2005 0913 Mike Huang

1 General Information

1.1 Description of Equipment Under Test

Equipment Under Test	:	POWER ADAPTER
Model Number	:	GT-41062-18x-C.E-ZZ (x=05~24; ZZ=T2, T3, T3A)
Serial Number	:	N/A
Type of Sample Tested	:	☒Proto-type ☐Pre-Production ☐Mass Production
Applicant	:	**GlobTek, Inc.** 186 Veterans Dr Northvale, NJ 07647/USA
Manufacturer	:	**GlobTek, Inc.** 186 Veterans Dr Northvale, NJ 07647/USA
Power Supply	:	Input: 110-230Vac, 50 / 60Hz, Power cord: ☒Non-shielded ☒Detachable, 1.8m ☒Without core
Product information	:	☒N/A
Date of Receipt of Sample	:	Dec. 23, 2004
Date of Test	:	Dec. 28 ~ Nov. 3, 2004
Description of E.U.T.	:	1. The EUT is Power Adapter. 2. Model numbers (list on this report) are identical, except output power. 3. The GT-41062-1805-C.E-T2, GT-41062-1805-C.E-T3, GT-41062-1809-C.E-T2, GT-41062-1809-C.E-T3, GT-41062-1824-C.E-T2, GT-41062-1824-C.E-T3 are representative selected in the test and included in this report. 4. This is a multiple report, please refer to original report 4A102702E, the difference is only changed model number and Applicant, and all the rest parts are identical with original EUT.

Specification of output power:

Output			
Model No.	**Vdc**	**A**	**W**
GT-41062-1805-C.E-T2	5	3.6	18
GT-41062-1805-C.E-T2A	5	3	15
GT-41062-1806-C.E-T2	6	3	18
GT-41062-1807-C.E-T2	7	2.57	17.99
GT-41062-1808-C.E-T2	8	2.25	18
GT-41062-1809-C.E-T2	9	2.0	18
GT-41062-1810-C.E-T2	10	1.8	18
GT-41062-1812-C.E-T2	12	1.5	18
GT-41062-1815-C.E-T2	15	1.2	18
GT-41062-1818-C.E-T2	18	1.0	18
GT-41062-1820-C.E-T2	20	0.9	18
GT-41062-1824-C.E-T2	24	0.75	18

1.2 Test Facility

Site Description : ☒OATS 1 ☐OATS 2 ☐OATS 3 ☐OATS 4

Name of Firm : Interocean EMC Technology Corp.

Site 1, 2 Location : No.5-2, Lin 1, Tin-Fu Tsun, Lin-Kou Hsiang, Taipei County, Taiwan, R.O.C.

Site 3, 4 Location : No. 12, Ruei-Shu Valley, Ruei-Ping Tsuen, Lin-Kou Shiang, Taipei County, Taiwan, R.O.C.

Site Filing :

- Federal Communication Commissions – USA
  Registration No.: 96399 (Site 1& 2)
  Registration No.: 518958 (Site 3 & 4)
- Voluntary Control Council for Interference by Information Technology Equipment (VCCI) – Japan
  Registration No. (Conducted Area 1): C-1094
  Registration No. (Conducted Area 3): C-1943
  Registration No. (Conducted Area 4): C-1944
  Registration No. (OATS 1): R-1040
  Registration No. (OATS 2): R-1041
  Registration No. (OATS 3): R-1812
  Registration No. (OATS 4): R-1813
- Industry Canada
  Submission: 44631

Site Accreditation :

- Bureau of Standards and Metrology and Inspection (BSMI) – Taiwan, R.O.C.
  Accreditation No.:
  SL2-IN-E-0026 for CNS13438 / CISPR22
  SL2-R1-E-0026 for CNS13439 / CISPR13
  SL2-R2-E-0026 for CNS13439 / CISPR13
  SL2-A1-E-0026 for CNS13783-1 / CISPR14
  SL2-L1-E-0026 for CNS14115 / CISPR15
- National Voluntary Laboratory Accreditation Program (NVLAP) - USA
  Lab Code: 200458-0
- Nemko AS
  Authorization No.: ELA 181-a
  Authorization No.: ELA 181-b
- CNLA
  Registration No.: 1113 / 1114
- TüV Rheinland
  Certificate No: 10006453-2003

1.2.1 Test Methodology

Both conducted and Radiated Emission Measurement were performed according to the procedures in EN 61204-3:2000, EN 61000-3-2: 2000 and EN 61000-3-3:1995 + A1: 2001. Radiated Emission Measurement was performed at 10 meters distance from antenna to EUT. All immunity tests were performed according to the procedures in EN 61204-3:2000.

1.3 Details of tested supporting System

1.3.1 LOAD (GT-41062-1805-C.E-T2)
FULL LOAD WATT : 18W (5Vdc, 3.6A)

HALF LOAD WATT : 9W (5Vdc, 1.8A)

1.3.2 LOAD (GT-41062-1805-C.E-T2A)
FULL LOAD WATT : 15W (5Vdc, 3A)

HALF LOAD WATT : 7.5W (5Vdc, 1.5A)

1.3.3 LOAD (GT-41062-1806-C.E-T2)
FULL LOAD WATT : 18W (6Vdc, 3A)

HALF LOAD WATT : 9W (6Vdc, 1.5A)

1.3.4 LOAD (GT-41062-1807-C.E-T2)
FULL LOAD WATT : 17.99W (7Vdc, 2.57A)

HALF LOAD WATT : 8.995W (7Vdc, 1.285A)

1.3.5 LOAD (GT-41062-1808-C.E-T2)
FULL LOAD WATT : 18W (8Vdc, 2.25A)

HALF LOAD WATT : 9W (8Vdc, 1.125A)

1.3.6 LOAD (GT-41062-1809-C.E-T2)
FULL LOAD WATT : 18W (9Vdc, 2A)

HALF LOAD WATT : 9W (9Vdc, 1A)

1.3.7 LOAD (GT-41062-1810-C.E-T2)
FULL LOAD WATT : 18W (10Vdc, 1.8A)

HALF LOAD WATT : 9W (10Vdc, 0.9A)

1.3.8 LOAD (GT-41062-1812-C.E-T2)
FULL LOAD WATT : 18W (12Vdc, 1.5A)

HALF LOAD WATT : 9W (12Vdc, 0.75A)

1.3.9 LOAD (GT-41062-1815-C.E-T2)

FULL LOAD WATT : 18W (15Vdc, 1.2A)

HALF LOAD WATT : 9W (15Vdc, 0.6A)

1.3.10 LOAD (GT-41062-1818-C.E-T2)

FULL LOAD WATT : 18W (18Vdc, 1.0A)

HALF LOAD WATT : 9W (18Vdc, 0.5A)

1.3.11 LOAD (GT-41062-1820-C.E-T2)

FULL LOAD WATT : 18W (20Vdc, 0.9A)

HALF LOAD WATT : 9W (20Vdc, 0.45A)

1.3.12 LOAD (GT-41062-1824-C.E-T2)

FULL LOAD WATT : 18W (24Vdc, 0.75A)

HALF LOAD WATT : 9W (24Vdc, 0.375A)

1.4 Measurement Uncertainty

No.	Item	Value	
1.	Power Line Conducted Emission (Conduction 1)	+2.68dB	-2.69dB
2.	Power Line Conducted Emission (Conduction 2)	+2.62dB	-2.62dB
3.	Power Line Conducted Emission (Conduction 3)	+2.51dB	-2.51dB
4.	Power Line Conducted Emission (Conduction 4)	+2.51dB	-2.51dB
5.	Radiated Emission Test (OATS 1)	+3.13 dB	-3.26 dB
6.	Radiated Emission Test (OATS 2)	+2.69 dB	-2.69 dB
7.	Radiated Emission Test (OATS 3)	+3.15 dB	-3.15 dB
8.	Radiated Emission Test (OATS 4)	+3.20 dB	-3.20 dB
9.	Radio-frequency, Electromagnetic field Immunity Test (RS)	+1.47dB	-1.47dB
10.	Radio-frequency, Conducted Disturbances Immunity Test (CS)	+2.31dB	-2.34dB

1.5 Measured Mode

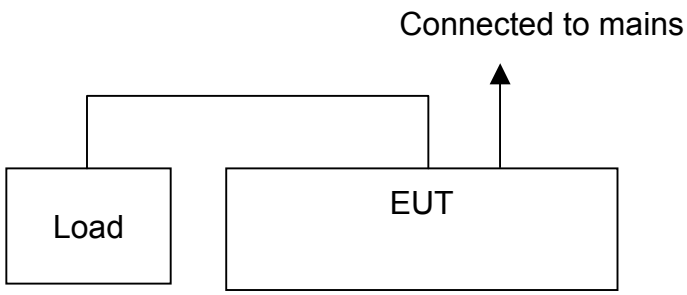
1.5.1 The test modes for preliminary test are as following:

- Mode 1: FULL LOAD (GT-41062-1805-C.E-T2)
- Mode 2: HALF LOAD (GT-41062-1805-C.E-T2)
- Mode 3: FULL LOAD (GT-41062-1805-C.E-T3)
- Mode 4: HALF LOAD (GT-41062-1805-C.E-T3)
- Mode 5: FULL LOAD (GT-41062-1809-C.E-T2)
- Mode 6: HALF LOAD (GT-41062-1809-C.E-T2)
- Mode 7: FULL LOAD (GT-41062-1809-C.E-T3)
- Mode 8: HALF LOAD (GT-41062-1809-C.E-T3)
- Mode 9: FULL LOAD (GT-41062-1824-C.E-T2)
- Mode10: HALF LOAD (GT-41062-1824-C.E-T2)
- Mode11: FULL LOAD (GT-41062-1824-C.E-T3)
- Mode12: HALF LOAD (GT-41062-1824-C.E-T3)

1.5.2 For emission test, selected the worst-case modes1-4after preliminary test for final test.

1.5.3 For immunity test, selected the modes 1-4 for final test.

1.6 Configuration of EUT Setup



1.7 Test Step of EUT

1.7.1 Setup the EUT and peripheral as above.

1.7.2 Connected the EUT with load at full load mode.

1.7.3 Changed the EUT load to half load and repeated step 1.7.2.

2 Power Line Conducted Emission Measurement

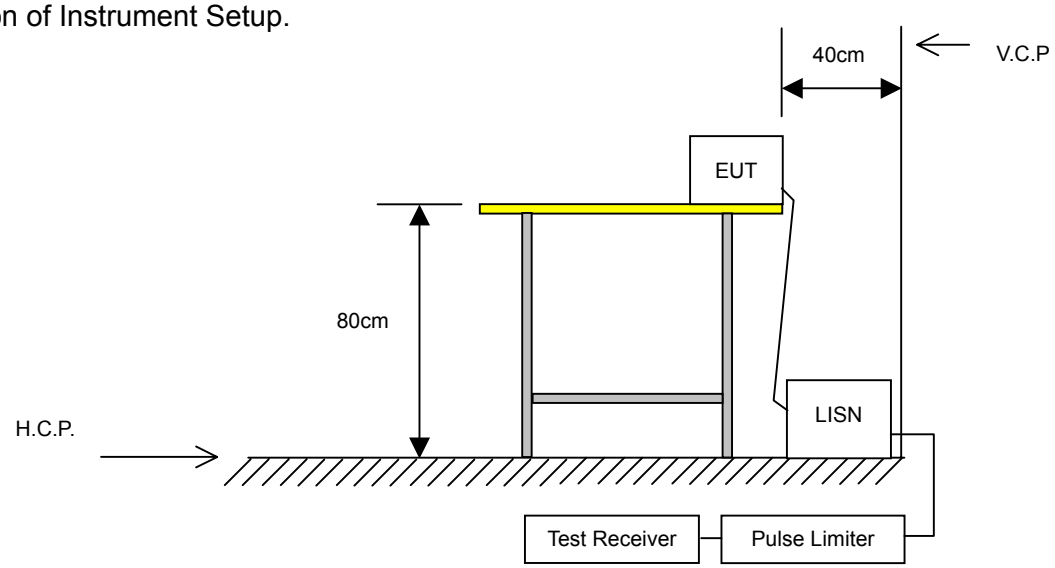
2.1 Instrument

Instrument	Manufacturer	Model	Serial No.	Last Calibration
EMI Test Receiver	Rohde & Schwarz	ESCS 30	100127	2004/05/14
L.I.S.N.	Schwarzbeck	NNLK8121	8121417	2004/07/18
L.I.S.N.	Rohde & Schwarz	ESH3-Z5	829996/016	2004/06/16
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	830836/026	2004/07/15
RF Cable	IETC	CBL04	N/A	2004/10/14

Note: All instrument upon which need to be calibrated are within calibration period of 1 year.

2.2 Block Diagram of Test Configuration

Configuration of Instrument Setup.



2.3 Conducted Limit (Power Line)

EN 55022

Frequency (MHz)	☐ Class A (dBuV)		☒ Class B (dBuV)	
	Q.P. (Quasi-Peak)	A.V. (Average)	Q.P. (Quasi-Peak)	A.V. (Average)
0.15 ~ 0.50	79	66	66 to 56	56 to 46
0.50 ~ 5.0	73	60	56	46
5.0 ~ 30	73	60	60	50

2.4 Instrument configuration

2.4.1 Set the EMI test receiver frequency range from 150 KHz to 30 MHz.

2.4.2 Set the EMI test receiver bandwidth at 9kHz.

2.4.3 Set the EMI test receiver detector as Quasi-Peak (Q.P.) and Average (AV).

2.5 Configuration of Measurement

2.5.1 The EUT was placed on a non-conductive table whose total height equaled 80cm and vertical conducting plane located 40cm to the rear of the EUT.

2.5.2 The EUT was connected to the main power through Line Impedance Stabilization Networks (LISN). This setup provided a 50ohm / 50μH coupling impedance for the measuring equipment. The auxiliary equipment was also connected to the main power through a LISN that provided a 50ohm/50μH coupling impedance with 50ohm termination. (Refer to the block diagram of the test setup and photographs.)

2.5.3 The conducted disturbance was measured between the phase lead and the reference ground, and between the neutral lead and reference ground. The initial testing identified the frequency that has the highest disturbance relative to the limit while operating the EUT in typical modes of operation and cable positions in a test setup representative of typical system configuration.

2.5.4 The identification of the frequency of highest disturbance with respect to the limit was found by investigating disturbances at a number of significant frequencies. The probable frequency of maximum disturbance had been found and that the associated cable and EUT configuration and mode of operation had been identified.

2.6 Test Result

PASS.

The final tests data are shown on following pages. The test waveforms are shown on Appendix 1.

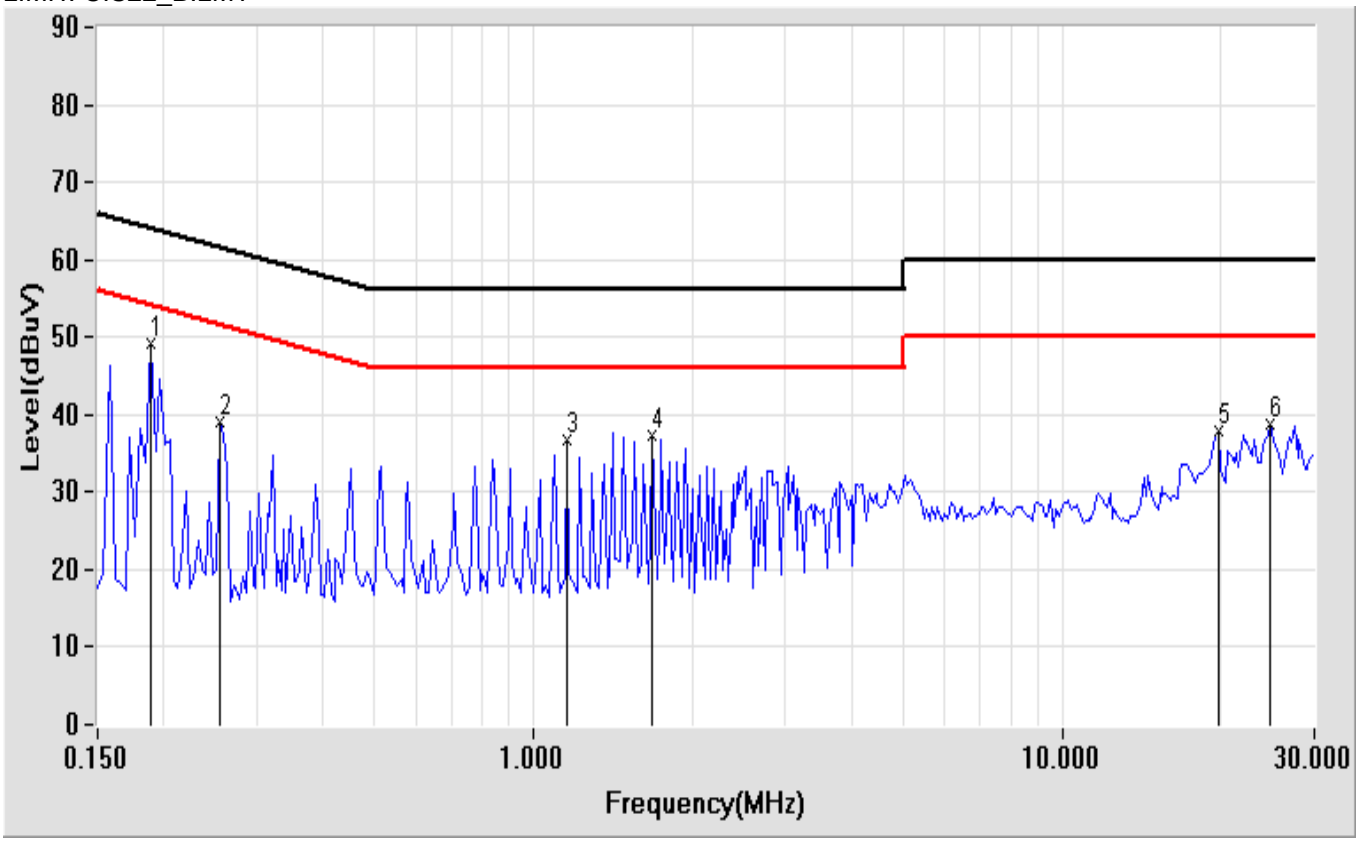
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Line
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1805-C.E-T2	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek.emi/38
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.189	0.20	47.32	32.10	47.52	32.30	64.08	54.08	-16.56	-21.78
0.255	0.20	41.78	29.73	41.98	29.93	61.59	51.59	-19.61	-21.66
1.162	0.30	34.92	33.88	35.22	34.18	56.00	46.00	-20.78	-11.82
1.677	0.30	35.84	34.09	36.14	34.39	56.00	46.00	-19.86	-11.61
19.814	0.81	25.87	19.30	26.68	20.11	60.00	50.00	-33.32	-29.89
24.779	1.09	31.58	22.76	32.67	23.85	60.00	50.00	-27.33	-26.15

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: FULL LOAD

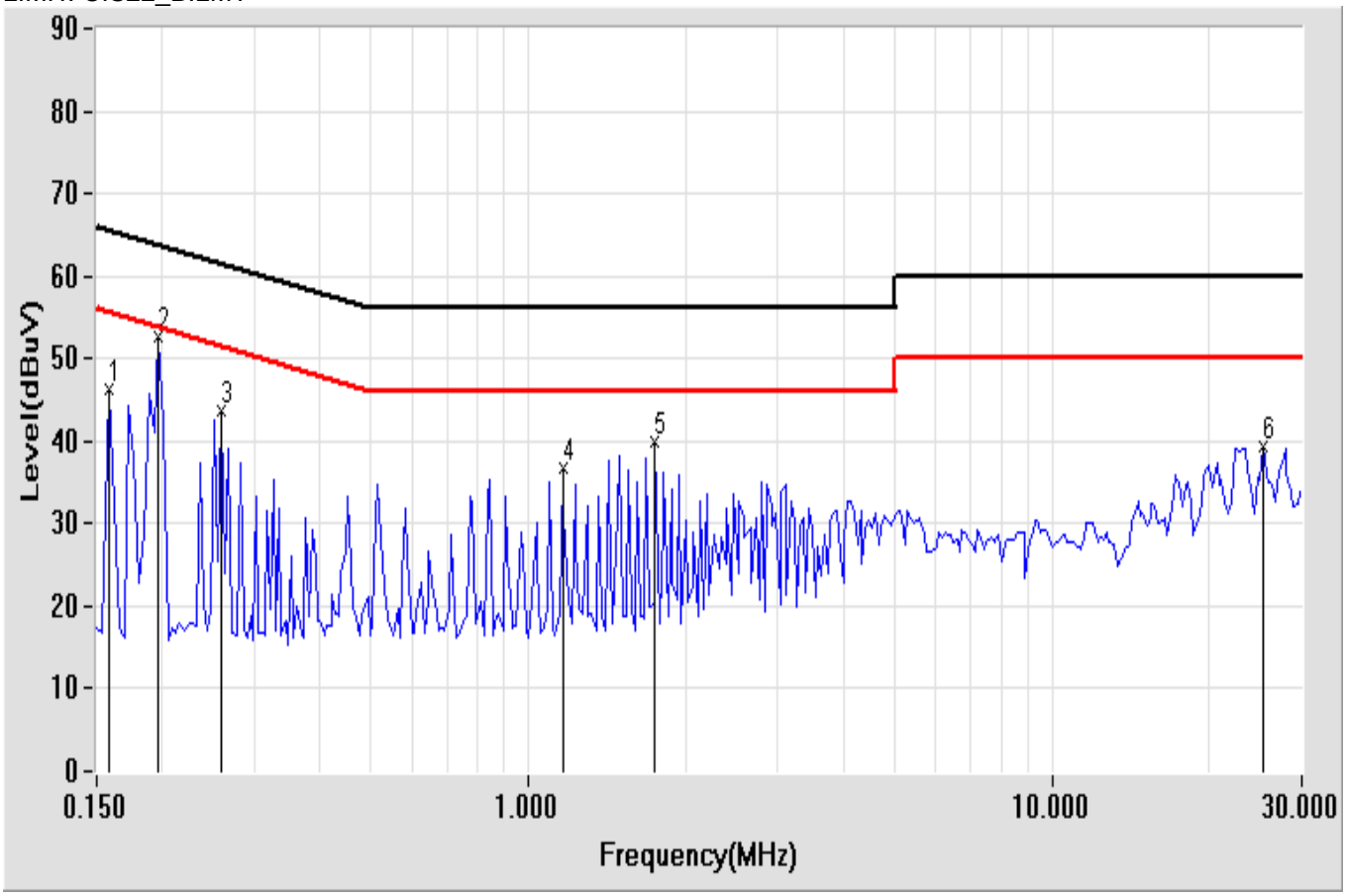
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Neutral
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1805-C.E-T2	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek.emi/37
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.158	0.20	41.33	14.32	41.53	14.52	65.57	55.57	-24.04	-41.05
0.197	0.20	50.49	34.77	50.69	34.97	63.74	53.74	-13.05	-18.77
0.259	0.20	45.42	33.00	45.62	33.20	61.46	51.46	-15.84	-18.26
1.166	0.30	34.56	33.43	34.86	33.73	56.00	46.00	-21.14	-12.27
1.748	0.30	34.10	32.10	34.40	32.40	56.00	46.00	-21.60	-13.60
25.380	1.21	24.63	19.54	25.84	20.75	60.00	50.00	-34.16	-29.25

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: FULL LOAD

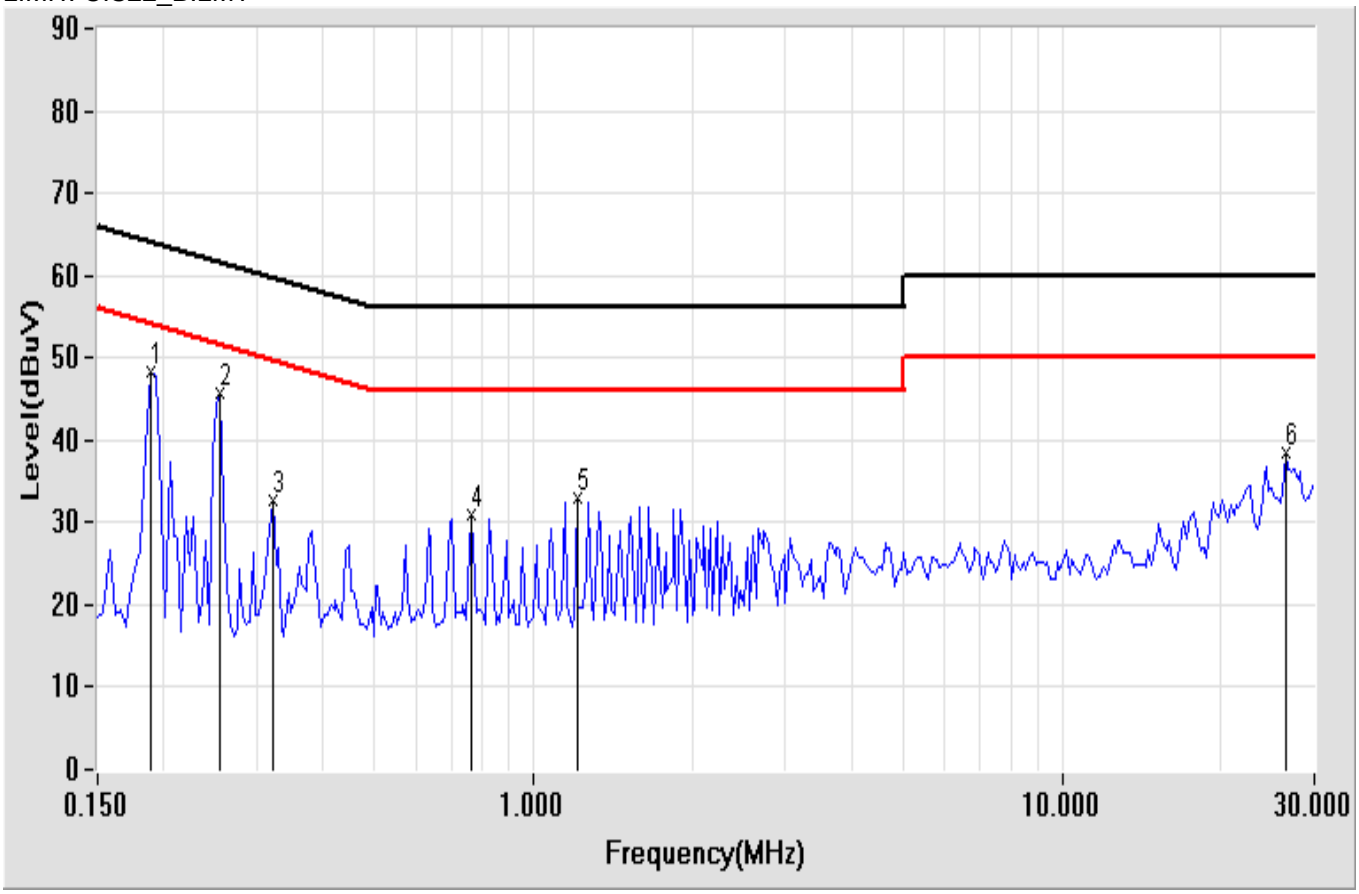
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Line
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1805-C.E-T2	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek.emi/39
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.189	0.20	47.24	32.24	47.44	32.44	64.08	54.08	-16.64	-21.64
0.255	0.20	43.68	32.57	43.88	32.77	61.59	51.59	-17.71	-18.82
0.322	0.20	27.94	19.07	28.14	19.27	59.66	49.66	-31.52	-30.39
0.763	0.21	29.22	27.75	29.43	27.96	56.00	46.00	-26.57	-18.04
1.209	0.30	30.85	28.51	31.15	28.81	56.00	46.00	-24.85	-17.19
26.607	1.16	30.90	23.19	32.06	24.35	60.00	50.00	-27.94	-25.65

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: HALF LOAD

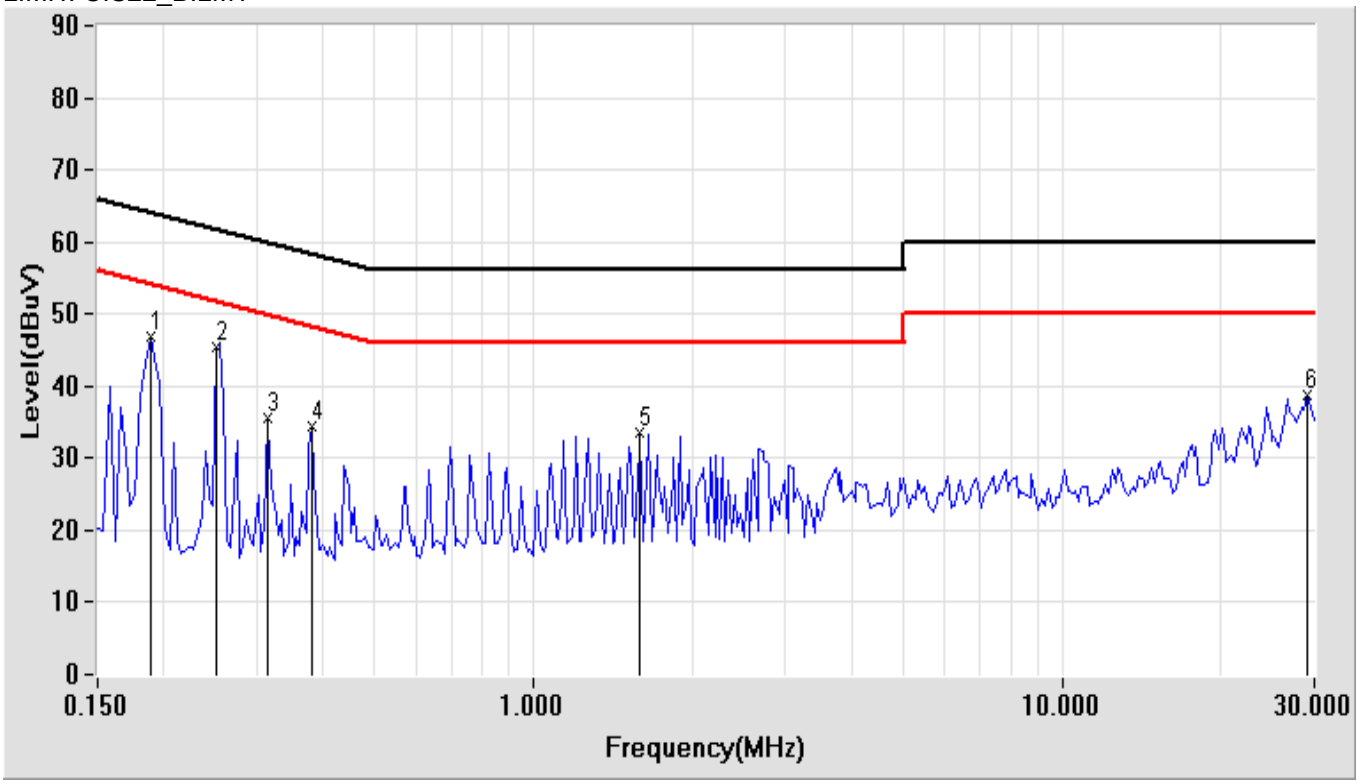
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Neutral
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1805-C.E-T2	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek.emi/40
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.189	0.20	48.79	33.17	48.99	33.37	64.08	54.08	-15.09	-20.71
0.252	0.20	44.62	33.55	44.82	33.75	61.69	51.69	-16.87	-17.94
0.314	0.20	33.67	24.59	33.87	24.79	59.86	49.86	-25.99	-25.07
0.380	0.19	32.46	27.98	32.65	28.17	58.28	48.28	-25.63	-20.11
1.587	0.30	30.93	27.89	31.23	28.19	56.00	46.00	-24.77	-17.81
28.982	1.28	30.82	23.19	32.10	24.47	60.00	50.00	-27.90	-25.53

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: HALF LOAD

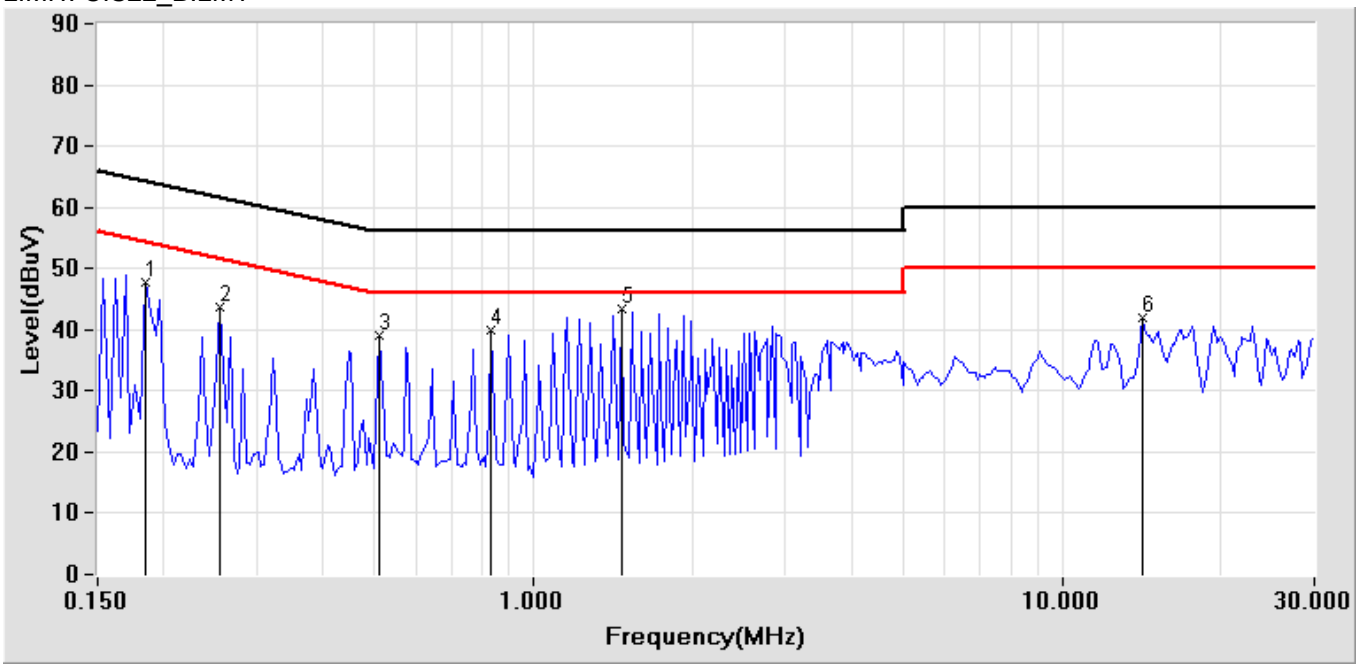
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Line
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1805-C.E-T3	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek.emi/93
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.185	0.20	49.30	39.90	49.50	40.10	64.26	54.26	-14.76	-14.16
0.255	0.20	42.59	35.71	42.79	35.91	61.59	51.59	-18.80	-15.68
0.513	0.18	38.16	38.28	38.34	38.46	56.00	46.00	-17.66	-7.54
0.834	0.28	39.24	39.24	39.52	39.52	56.00	46.00	-16.48	-6.48
1.474	0.30	42.89	38.73	43.19	39.03	56.00	46.00	-12.81	-6.97
14.181	0.57	39.40	35.60	39.97	36.17	60.00	50.00	-20.03	-13.83

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: FULL LOAD

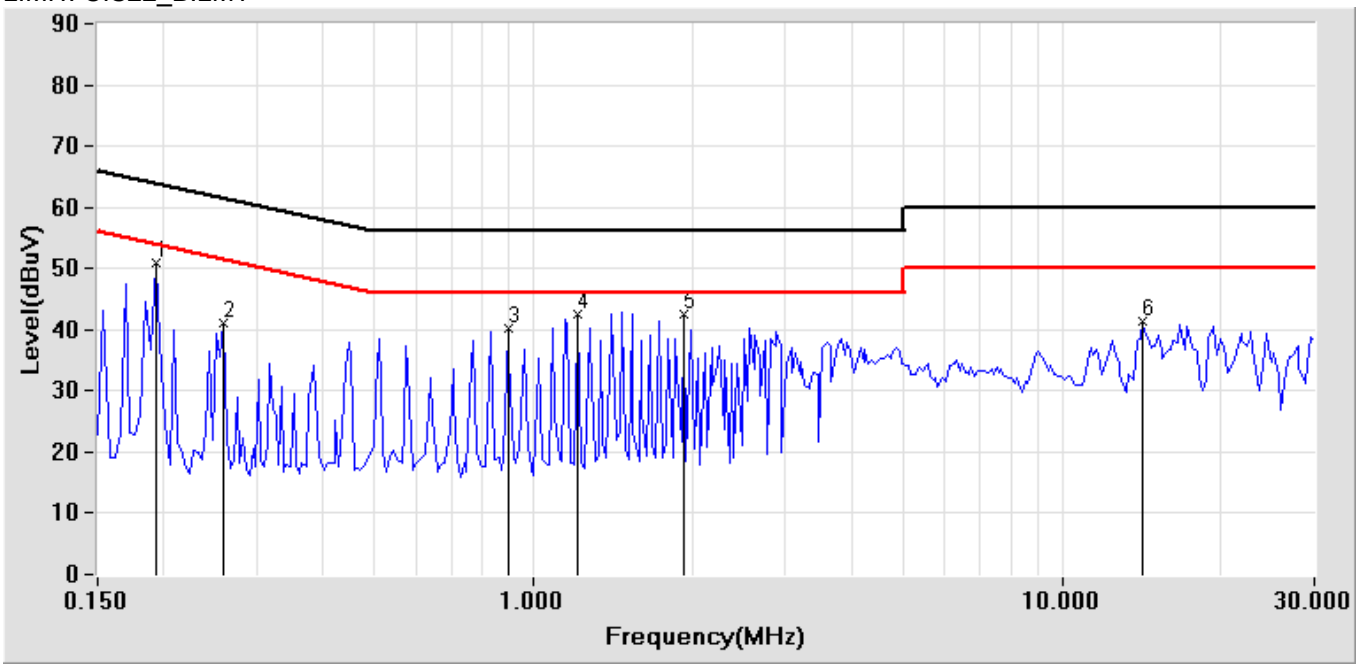
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Neutral
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1805-C.E-T3	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek.emi/94
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.193	0.20	49.36	39.91	49.56	40.11	63.91	53.91	-14.35	-13.80
0.259	0.20	40.90	34.10	41.10	34.30	61.46	51.46	-20.36	-17.16
0.896	0.30	39.10	39.06	39.40	39.36	56.00	46.00	-16.60	-6.64
1.216	0.30	41.19	39.03	41.49	39.33	56.00	46.00	-14.51	-6.67
1.920	0.30	41.93	38.95	42.23	39.25	56.00	46.00	-13.77	-6.75
14.146	0.67	39.50	35.10	40.17	35.77	60.00	50.00	-19.83	-14.23

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: FULL LOAD

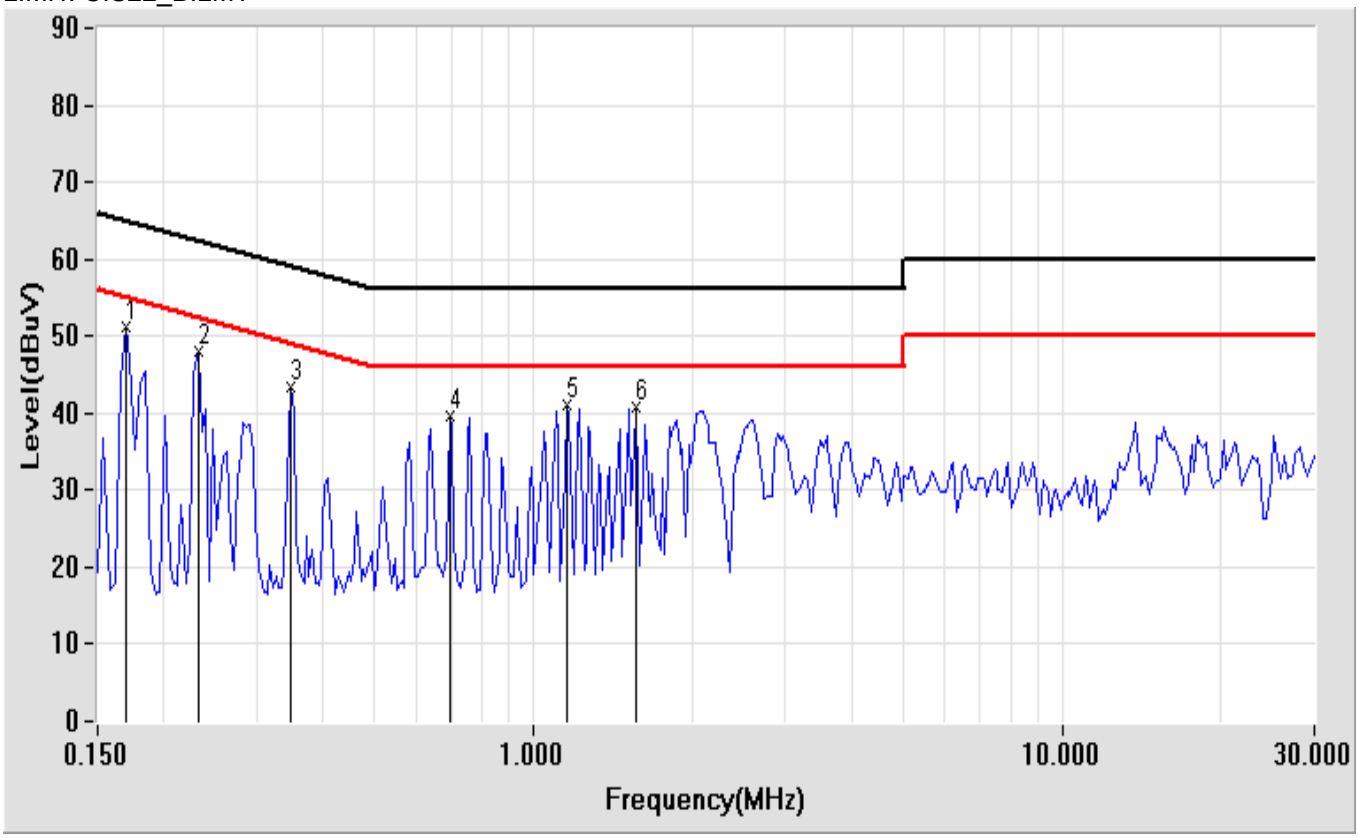
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Line
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1805-C.E-T3	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek.emi/88
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.170	0.20	52.10	40.20	52.30	40.40	64.96	54.96	-12.66	-14.56
0.232	0.20	45.41	36.24	45.61	36.44	62.38	52.38	-16.77	-15.94
0.349	0.20	41.20	38.00	41.40	38.20	58.99	48.99	-17.59	-10.79
0.697	0.20	38.20	37.00	38.40	37.20	56.00	46.00	-17.60	-8.80
1.162	0.30	39.70	35.80	40.00	36.10	56.00	46.00	-16.00	-9.90
1.568	0.30	39.20	32.60	39.50	32.90	56.00	46.00	-16.50	-13.10

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: HALF LOAD

Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Neutral
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1805-C.E-T3	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek.emi/87
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

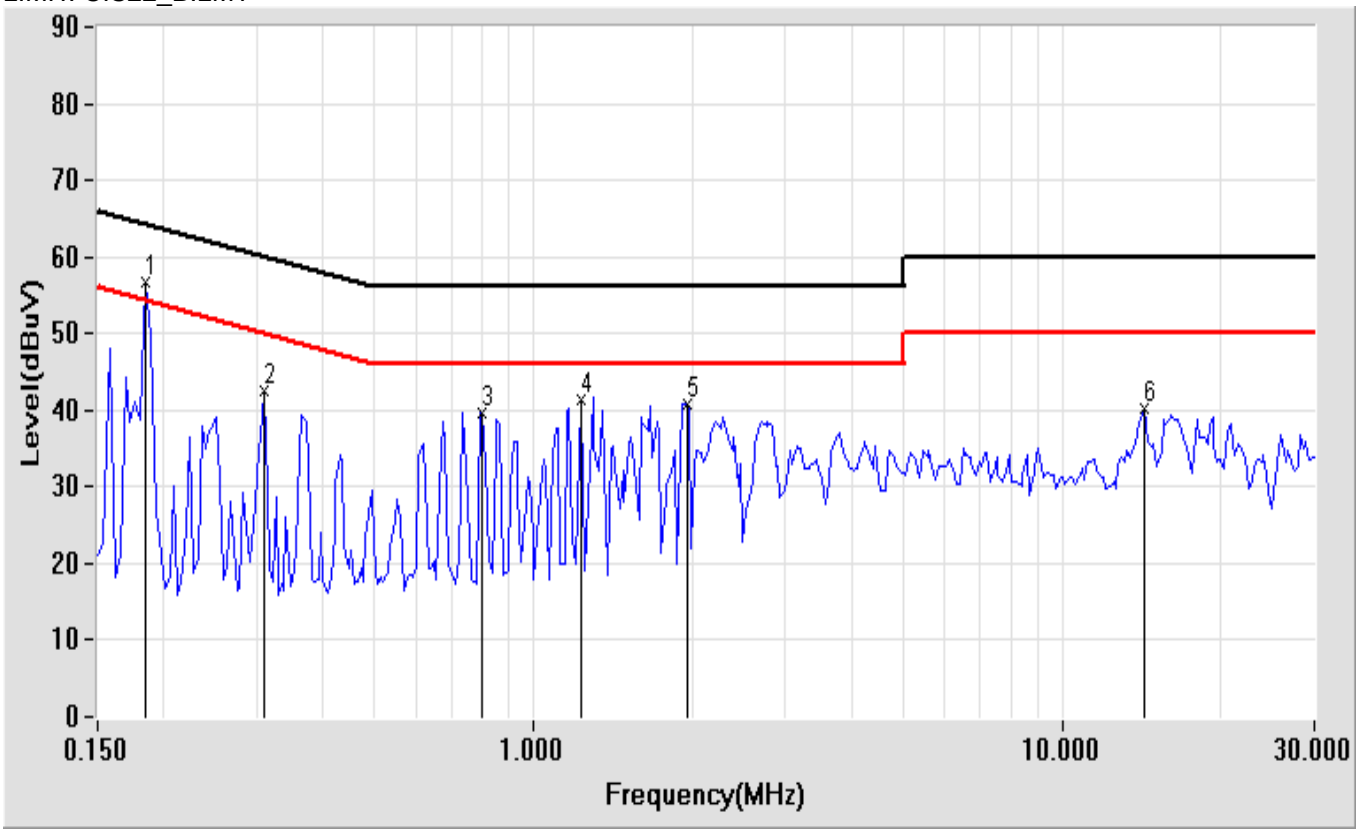
Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (Db)	
(MHz)	(Db)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.185	0.20	54.40	42.10	54.60	42.30	64.26	54.26	-9.66	-11.96
0.310	0.20	41.30	36.00	41.50	36.20	59.97	49.97	-18.47	-13.77
0.798	0.25	38.30	36.70	38.55	36.95	56.00	46.00	-17.45	-9.05
1.228	0.30	38.80	36.00	39.10	36.30	56.00	46.00	-16.90	-9.70
1.951	0.30	32.10	23.20	32.40	23.50	56.00	46.00	-23.60	-22.50
14.306	0.67	32.30	24.78	32.97	25.45	60.00	50.00	-27.03	-24.55

Remark:

1. All readings are Quasi-Peak and Average values.

2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: HALF LOAD

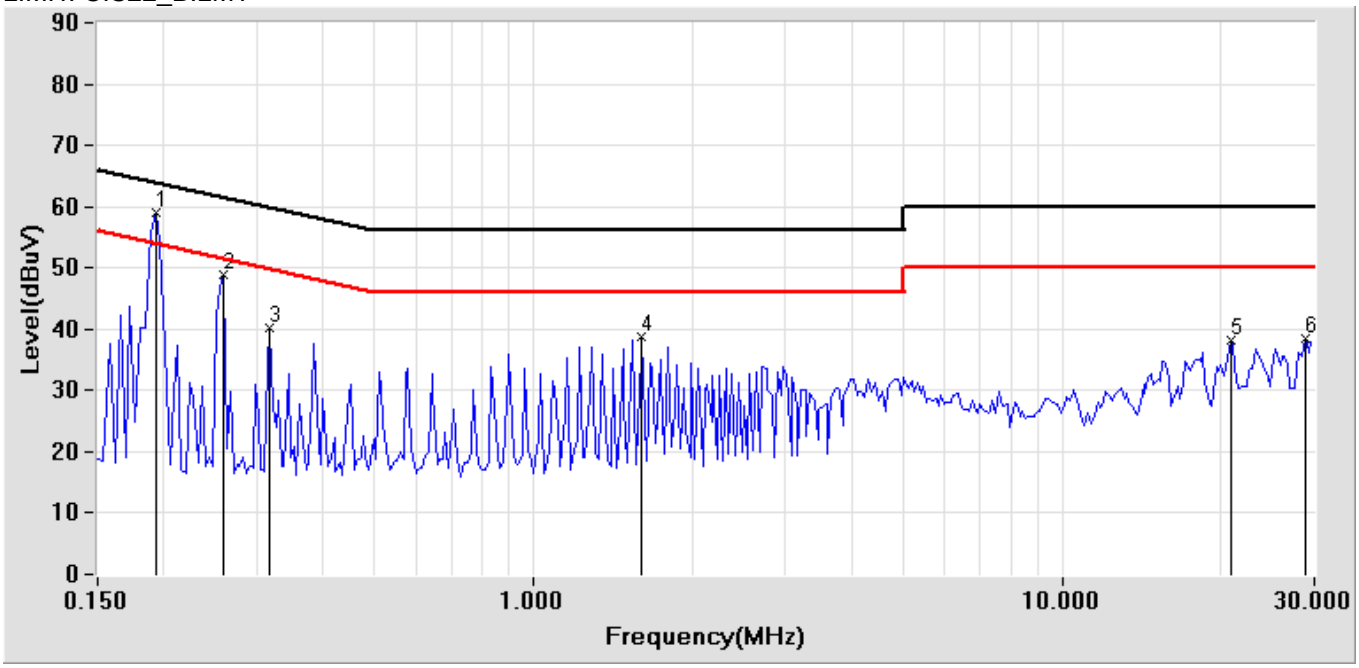
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Line
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1809-C.E-T2	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek.emi/55
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.193	0.20	54.40	38.90	54.60	39.10	63.91	53.91	-9.31	-14.81
0.259	0.20	46.21	31.39	46.41	31.59	61.46	51.46	-15.05	-19.87
0.318	0.20	38.93	26.82	39.13	27.02	59.76	49.76	-20.63	-22.74
1.607	0.30	37.20	36.40	37.50	36.70	56.00	46.00	-18.50	-9.30
20.892	0.86	22.45	18.02	23.31	18.88	60.00	50.00	-36.69	-31.12
28.787	1.25	32.10	25.70	33.35	26.95	60.00	50.00	-26.65	-23.05

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: FULL LOAD

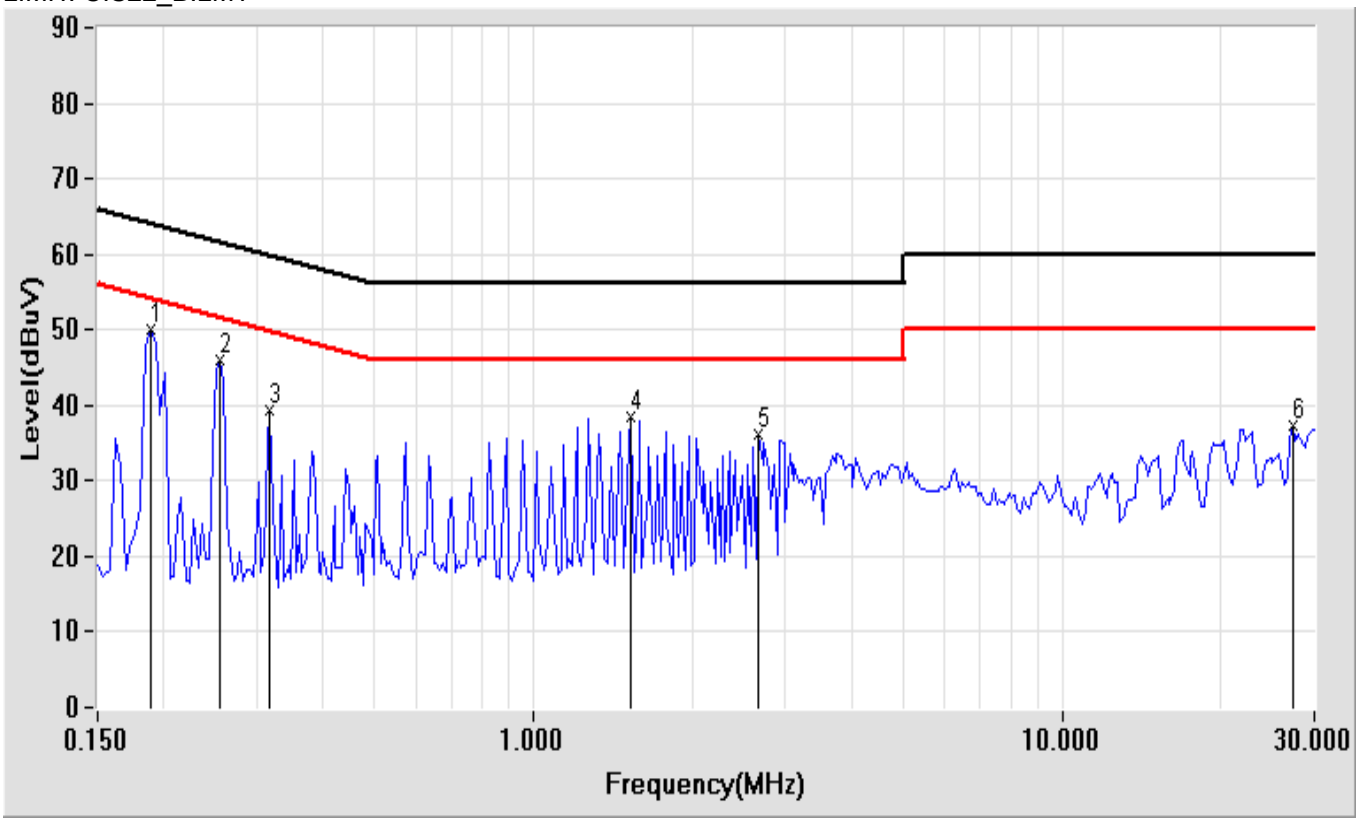
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Neutral
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1809-C.E-T2	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek emi/56
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.189	0.20	51.57	36.51	51.77	36.71	64.08	54.08	-12.31	-17.37
0.255	0.20	44.29	31.00	44.49	31.20	61.59	51.59	-17.10	-20.39
0.318	0.20	37.41	27.78	37.61	27.98	59.76	49.76	-22.15	-21.78
1.525	0.30	37.19	36.34	37.49	36.64	56.00	46.00	-18.51	-9.36
2.670	0.23	33.28	32.13	33.51	32.36	56.00	46.00	-22.49	-13.64
27.337	1.25	31.30	25.90	32.55	27.15	60.00	50.00	-27.45	-22.85

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: FULL LOAD

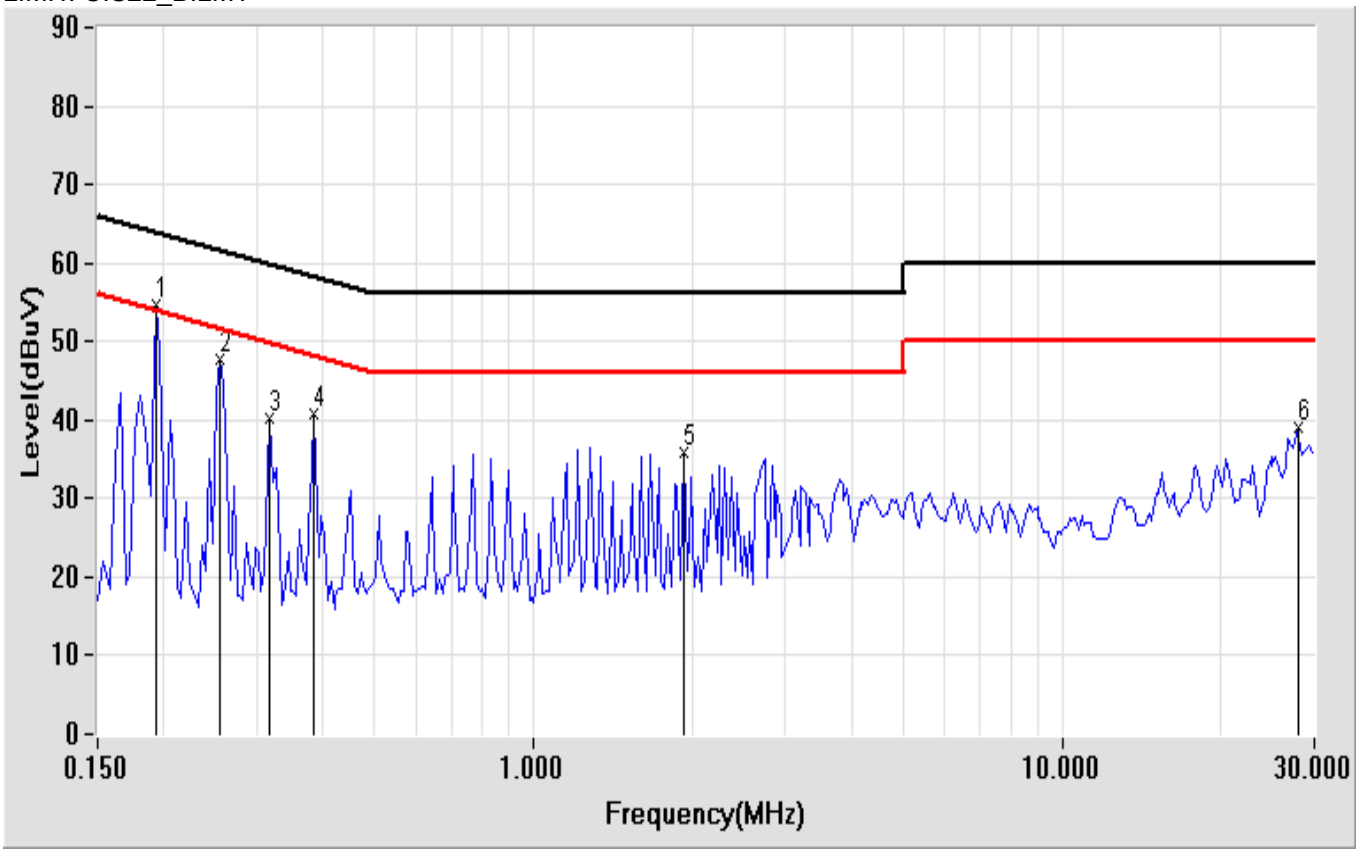
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Line
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1809-C.E-T2	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek.emi/61
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.193	0.20	52.40	37.34	52.60	37.54	63.91	53.91	-11.31	-16.37
0.255	0.20	46.27	32.57	46.47	32.77	61.59	51.59	-15.12	-18.82
0.318	0.20	39.27	32.13	39.47	32.33	59.76	49.76	-20.29	-17.43
0.384	0.18	39.02	34.79	39.20	34.97	58.19	48.19	-18.99	-13.22
1.923	0.30	34.60	34.00	34.90	34.30	56.00	46.00	-21.10	-11.70
27.959	1.22	30.60	26.20	31.82	27.42	60.00	50.00	-28.18	-22.58

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: HALF LOAD

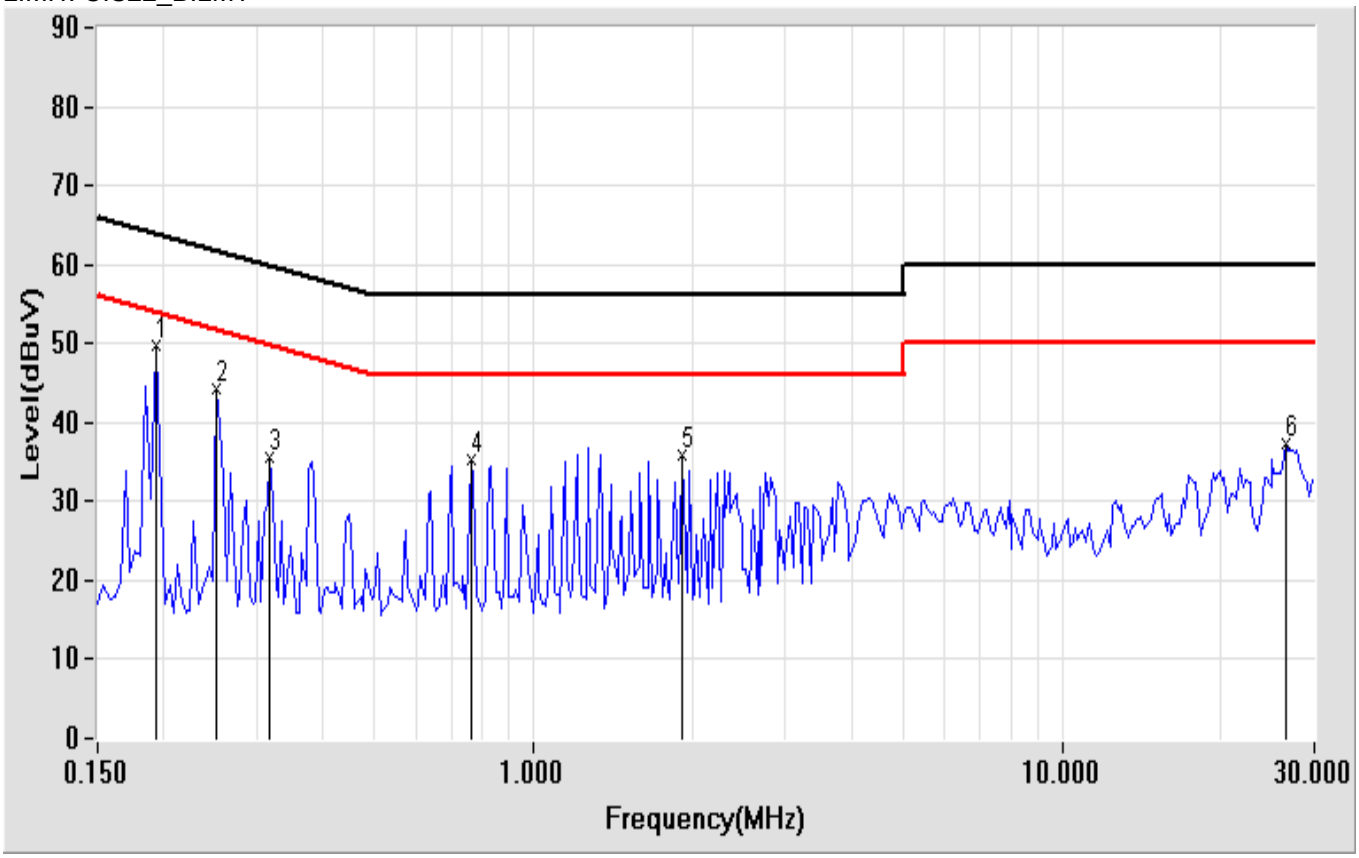
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Neutral
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1809-C.E-T2	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek.emi/62
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.193	0.20	49.34	35.48	49.54	35.68	63.91	53.91	-14.37	-18.23
0.252	0.20	43.13	29.67	43.33	29.87	61.69	51.69	-18.36	-21.82
0.318	0.20	39.96	33.59	40.16	33.79	59.76	49.76	-19.60	-15.97
0.763	0.21	34.75	34.56	34.96	34.77	56.00	46.00	-21.04	-11.23
1.912	0.30	35.30	34.80	35.60	35.10	56.00	46.00	-20.40	-10.90
26.556	1.23	33.10	27.50	34.33	28.73	60.00	50.00	-25.67	-21.27

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: HALF LOAD

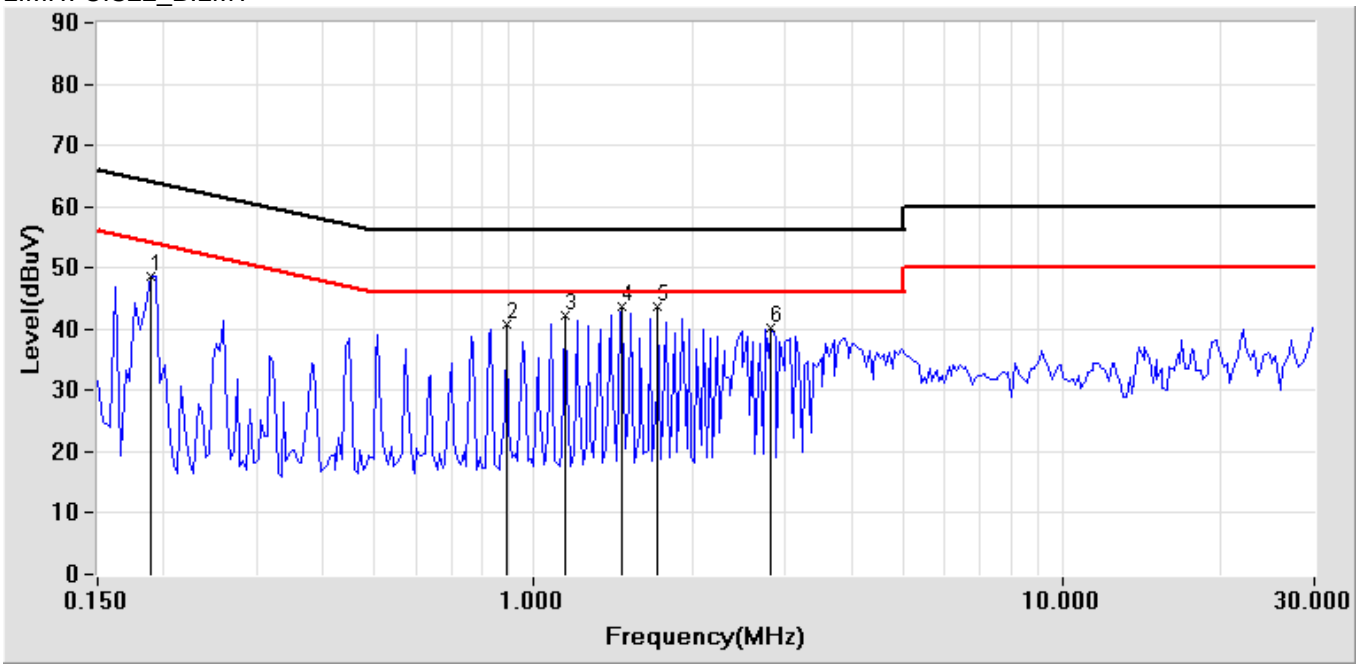
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Line
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1809-C.E-T3	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek.emi/80
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.189	0.20	49.12	41.50	49.32	41.70	64.08	54.08	-14.76	-12.38
0.892	0.30	39.80	38.80	40.10	39.10	56.00	46.00	-15.90	-6.90
1.146	0.30	41.74	38.91	42.04	39.21	56.00	46.00	-13.96	-6.79
1.466	0.30	43.00	39.20	43.30	39.50	56.00	46.00	-12.70	-6.50
1.720	0.30	42.10	38.90	42.40	39.20	56.00	46.00	-13.60	-6.80
2.802	0.20	39.34	38.90	39.54	39.10	56.00	46.00	-16.46	-6.90

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: FULL LOAD

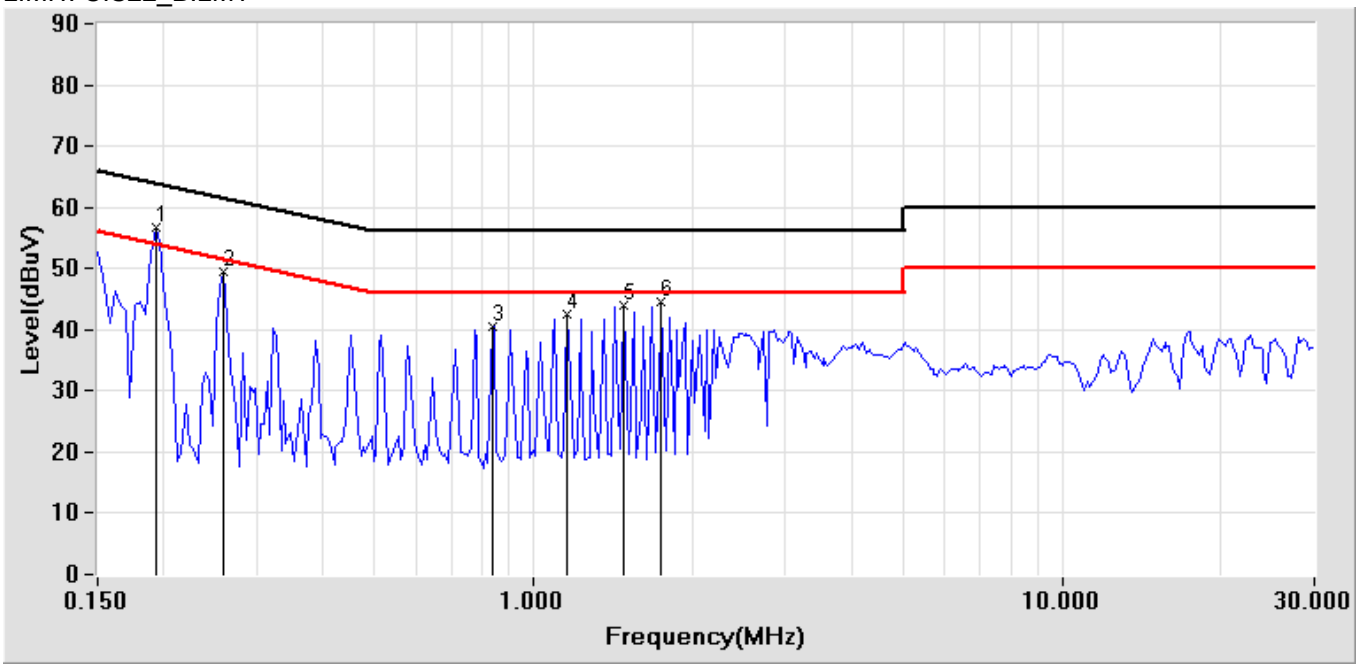
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Neutral
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1809-C.E-T3	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek emi/79
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.193	0.20	52.40	42.40	52.60	42.60	63.91	53.91	-11.31	-11.31
0.259	0.20	45.52	35.94	45.72	36.14	61.46	51.46	-15.74	-15.32
0.837	0.29	39.67	39.00	39.96	39.29	56.00	46.00	-16.04	-6.71
1.162	0.30	41.80	38.00	42.10	38.30	56.00	46.00	-13.90	-7.70
1.482	0.30	43.10	39.10	43.40	39.40	56.00	46.00	-12.60	-6.60
1.744	0.30	42.30	38.10	42.60	38.40	56.00	46.00	-13.40	-7.60

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: FULL LOAD

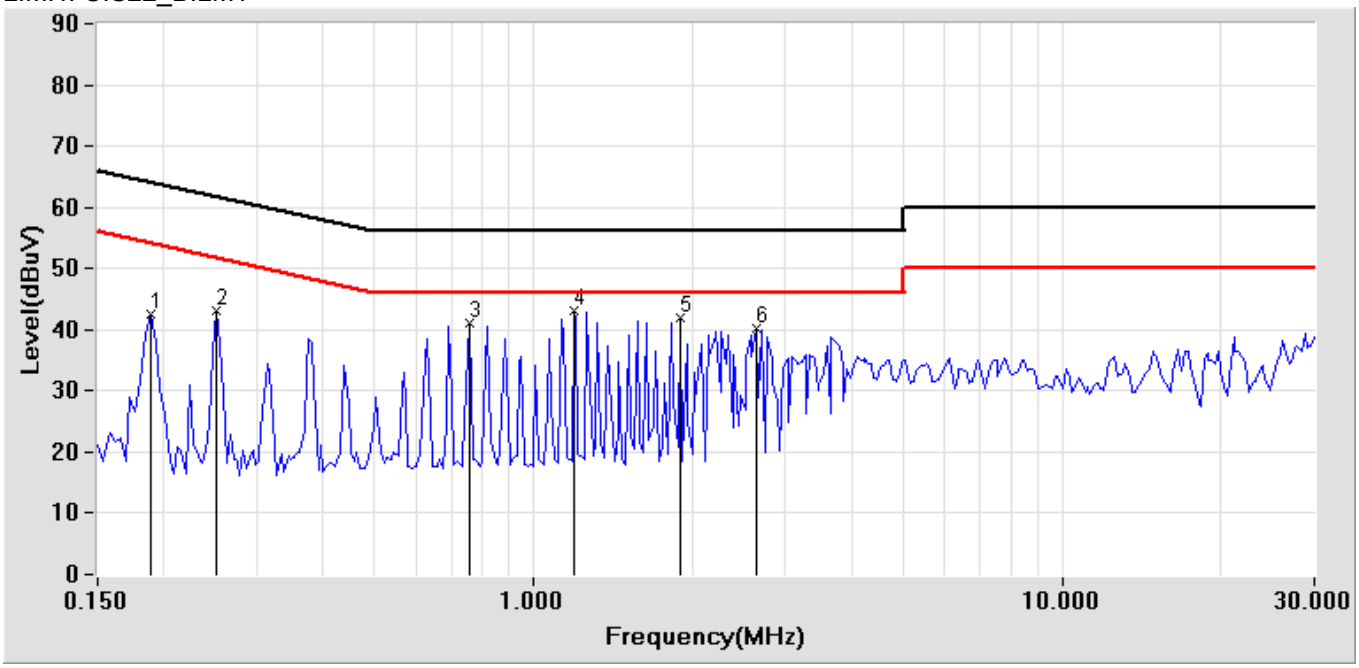
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Line
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1809-C.E-T3	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek.emi/85
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.189	0.20	45.65	41.65	45.85	41.85	64.08	54.08	-18.23	-12.23
0.252	0.20	41.99	39.60	42.19	39.80	61.69	51.69	-19.50	-11.89
0.755	0.20	40.70	39.04	40.90	39.24	56.00	46.00	-15.10	-6.76
1.197	0.30	42.19	38.37	42.49	38.67	56.00	46.00	-13.51	-7.33
1.892	0.30	41.30	39.00	41.60	39.30	56.00	46.00	-14.40	-6.70
2.650	0.20	39.00	38.50	39.20	38.70	56.00	46.00	-16.80	-7.30

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: HALF LOAD

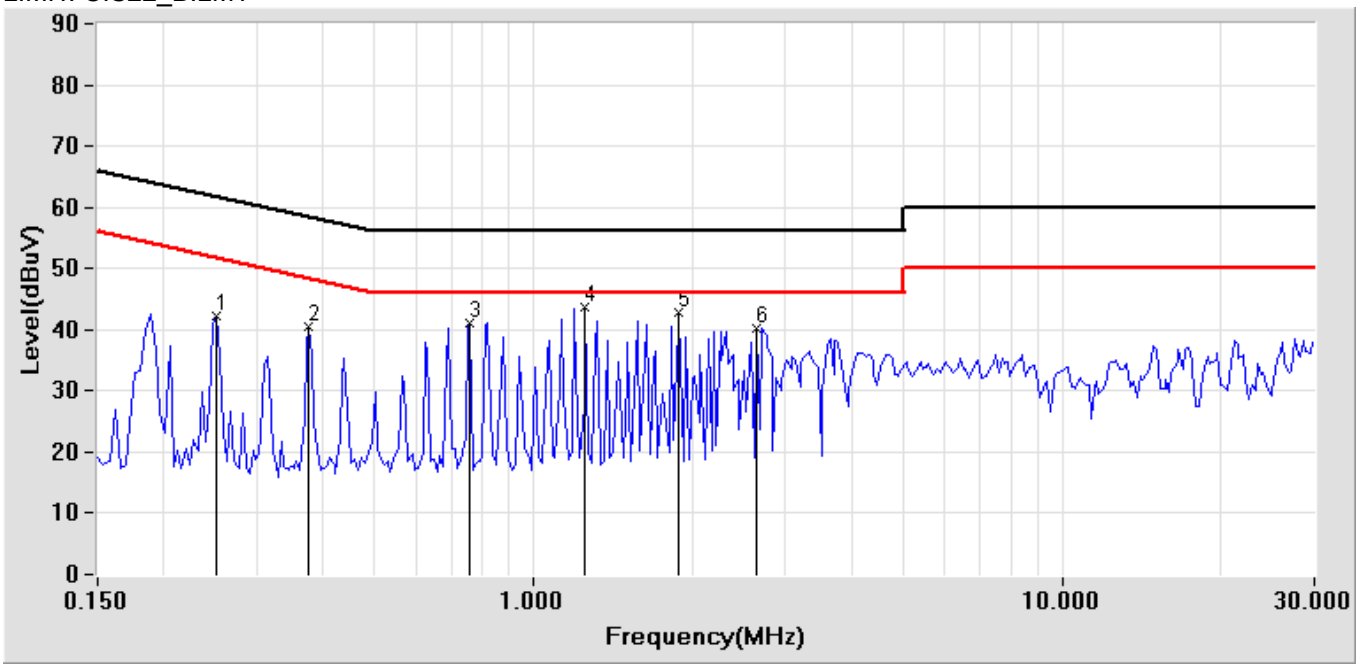
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Neutral
CLIENT GlobTek	DISTANCE:
MODEL: GT-41062-1809-C.E-T3	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek.emi/86
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.252	0.20	42.13	39.60	42.33	39.80	61.69	51.69	-19.36	-11.89
0.377	0.19	39.28	39.48	39.47	39.67	58.35	48.35	-18.88	-8.68
0.755	0.20	40.90	39.10	41.10	39.30	56.00	46.00	-14.90	-6.70
1.255	0.30	42.46	38.49	42.76	38.79	56.00	46.00	-13.24	-7.21
1.884	0.30	41.31	39.63	41.61	39.93	56.00	46.00	-14.39	-6.07
2.638	0.23	39.01	37.12	39.24	37.35	56.00	46.00	-16.76	-8.65

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: HALF LOAD

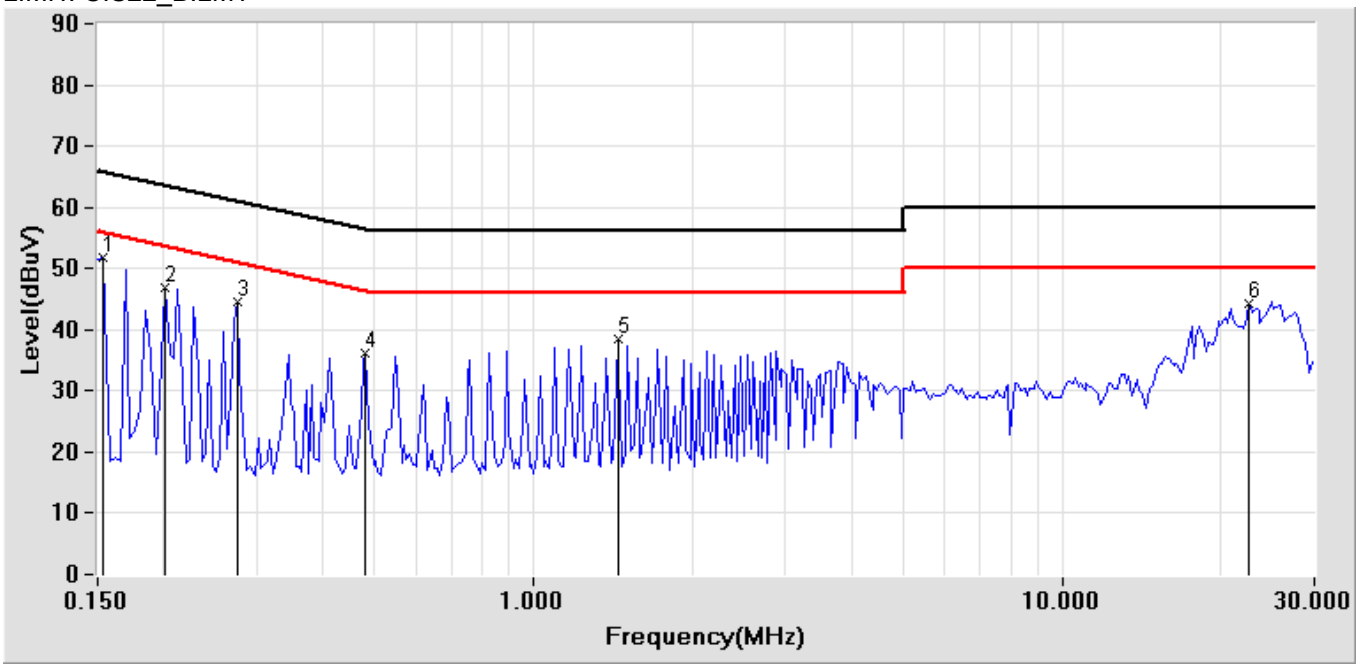
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Line
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1824-C.E-T2	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek.emi/64
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.154	0.20	42.86	15.32	43.06	15.52	65.78	55.78	-22.72	-40.26
0.201	0.20	49.10	38.60	49.30	38.80	63.57	53.57	-14.27	-14.77
0.275	0.20	43.03	34.76	43.23	34.96	60.97	50.97	-17.74	-16.01
0.482	0.17	33.39	33.32	33.56	33.49	56.30	46.30	-22.74	-12.81
1.443	0.30	35.40	34.32	35.70	34.62	56.00	46.00	-20.30	-11.38
22.466	0.95	38.10	31.60	39.05	32.55	60.00	50.00	-20.95	-17.45

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: FULL LOAD

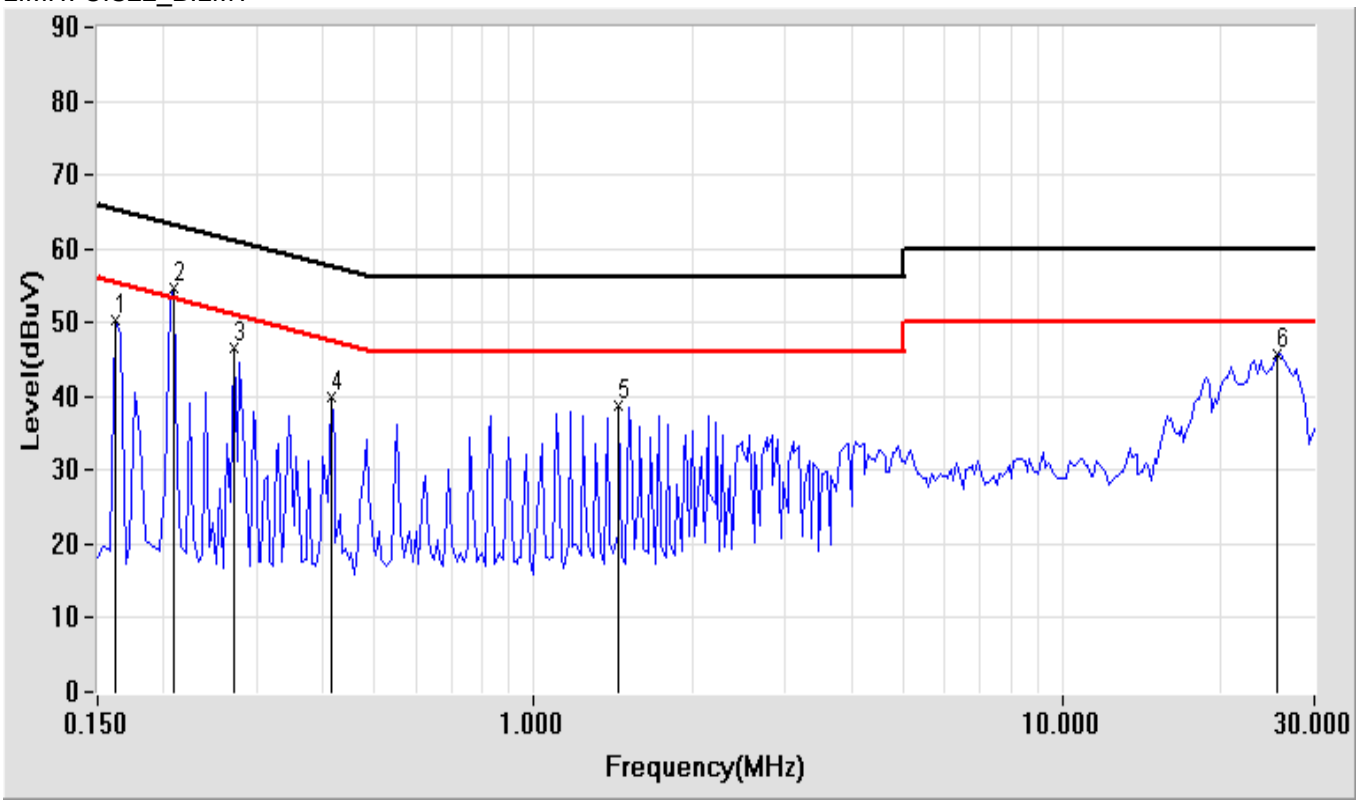
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Neutral
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1824-C.E-T2	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek.emi/63
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.162	0.20	41.67	14.40	41.87	14.60	65.36	55.36	-23.49	-40.76
0.209	0.20	51.97	40.14	52.17	40.34	63.24	53.24	-11.07	-12.90
0.271	0.20	44.50	35.30	44.70	35.50	61.09	51.09	-16.39	-15.59
0.416	0.17	37.20	34.30	37.37	34.47	57.53	47.53	-20.16	-13.06
1.451	0.30	37.90	37.00	38.20	37.30	56.00	46.00	-17.80	-8.70
25.595	1.21	40.37	35.11	41.58	36.32	60.00	50.00	-18.42	-13.68

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: FULL LOAD

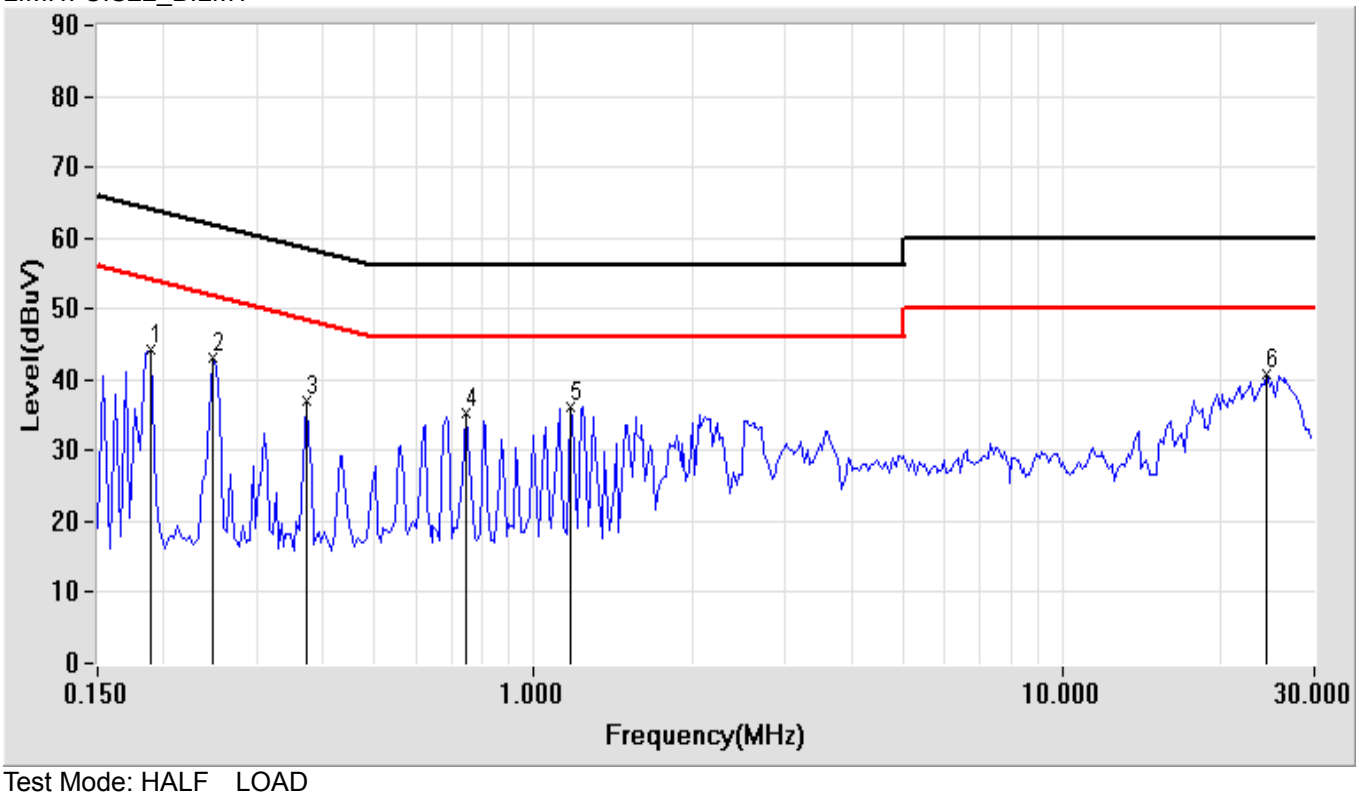
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Line
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1824-C.E-T2	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek.emi/69
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.189	0.20	44.10	33.20	44.30	33.40	64.08	54.08	-19.78	-20.68
0.248	0.20	45.53	39.22	45.73	39.42	61.82	51.82	-16.09	-12.40
0.373	0.19	35.17	32.12	35.36	32.31	58.43	48.43	-23.07	-16.12
0.744	0.20	34.32	30.55	34.52	30.75	56.00	46.00	-21.48	-15.25
1.177	0.30	34.76	28.49	35.06	28.79	56.00	46.00	-20.94	-17.21
24.337	1.08	33.16	25.02	34.24	26.10	60.00	50.00	-25.76	-23.90

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: HALF LOAD

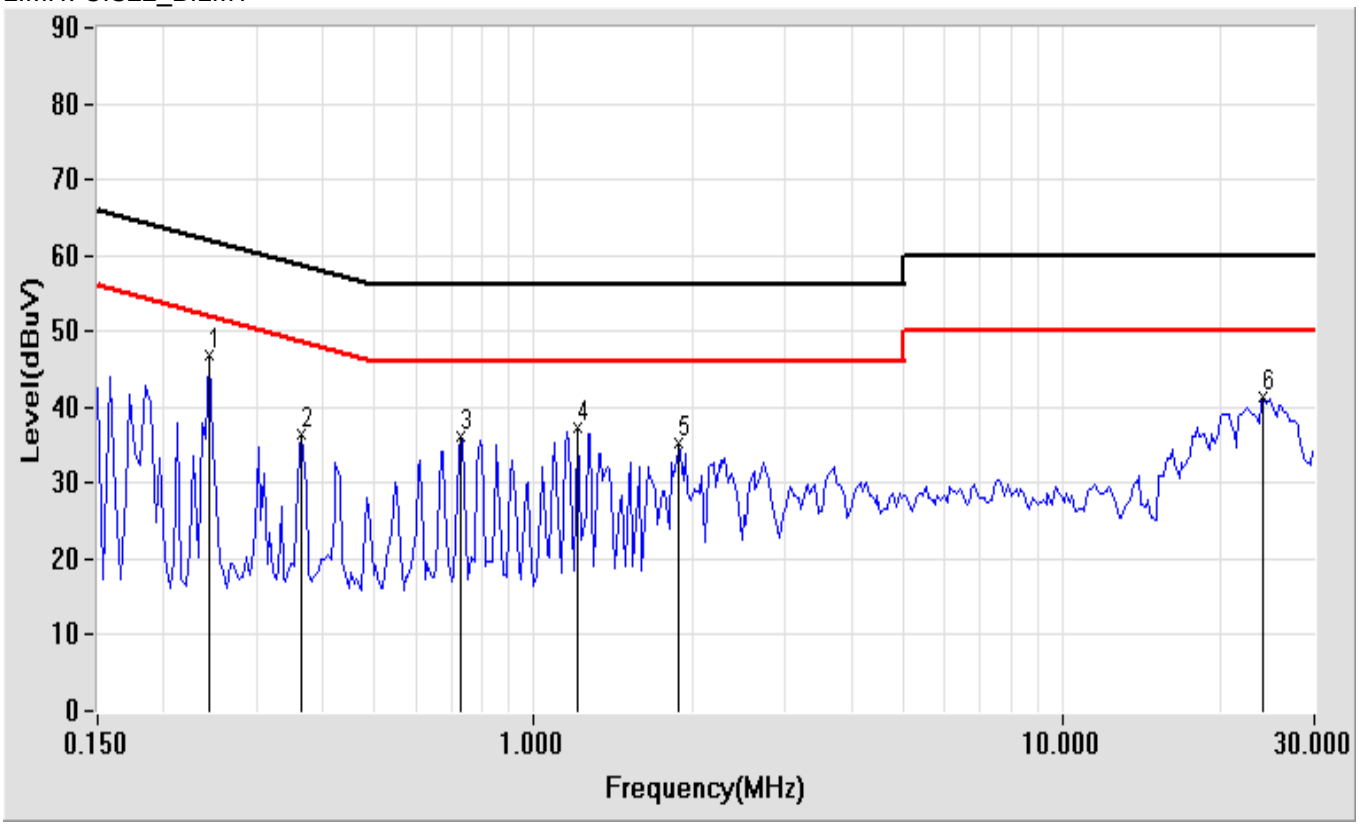
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Neutral
CLIENT: GlobTek	DISTANCE:
MODEL: GT-41062-1824-C.E-T2	Report No:
RATING: 230V/50Hz	FILE/DATA#: GlobTek.emi/70
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.244	0.20	45.11	38.47	45.31	38.67	61.96	51.96	-16.65	-13.29
0.365	0.19	36.69	34.58	36.88	34.77	58.61	48.61	-21.73	-13.84
0.728	0.20	34.62	31.80	34.82	32.00	56.00	46.00	-21.18	-14.00
1.216	0.30	35.51	29.84	35.81	30.14	56.00	46.00	-20.19	-15.86
1.884	0.30	32.96	24.36	33.26	24.66	56.00	46.00	-22.74	-21.34
23.998	1.19	35.10	26.39	36.29	27.58	60.00	50.00	-23.71	-22.42

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: HALF LOAD

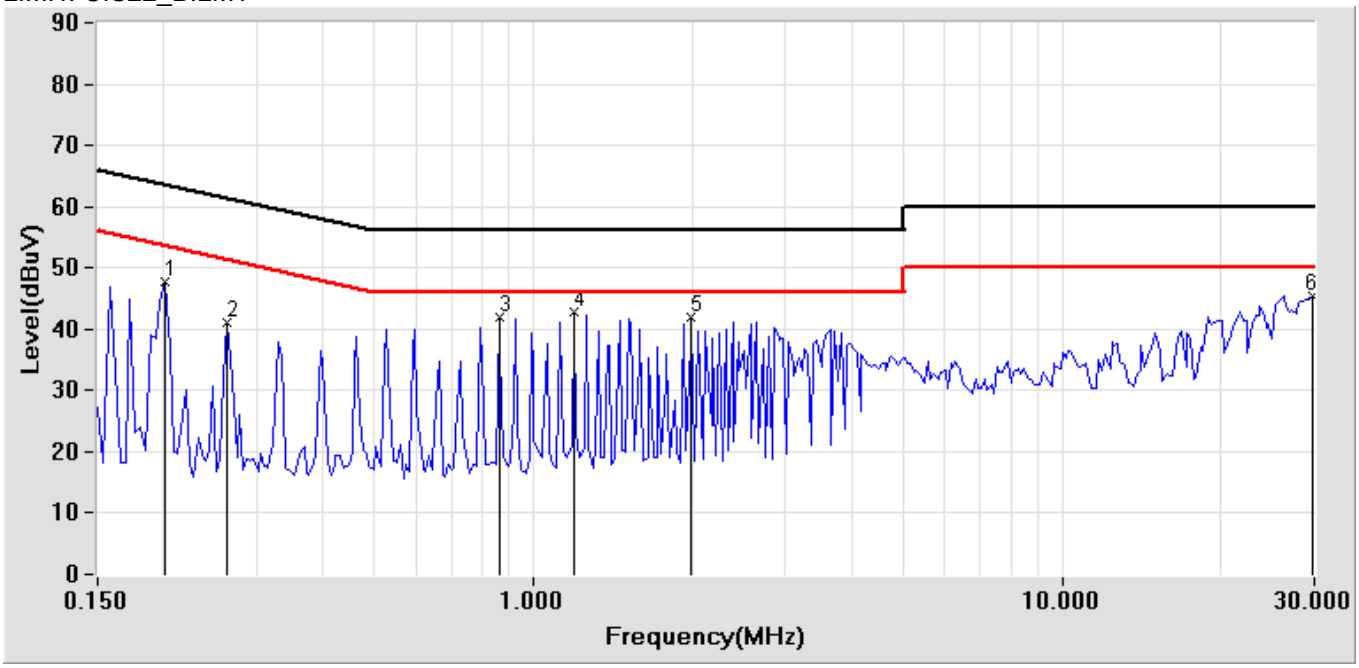
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Line
CLIENT:GLOBTEK	DISTANCE:
MODEL: GT-41062-1824-C.E-T3	Report No:
RATING: 230V/50Hz	FILE/DATA#:GLOBTEK.emi/77
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.201	0.20	44.65	42.54	44.85	42.74	63.57	53.57	-18.72	-10.83
0.263	0.20	40.30	36.60	40.50	36.80	61.34	51.34	-20.84	-14.54
0.861	0.30	41.10	39.61	41.40	39.91	56.00	46.00	-14.60	-6.09
1.193	0.30	42.20	38.60	42.50	38.90	56.00	46.00	-13.50	-7.10
1.986	0.30	41.42	39.00	41.72	39.30	56.00	46.00	-14.28	-6.70
29.670	1.29	41.60	35.90	42.89	37.19	60.00	50.00	-17.11	-12.81

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: FULL LOAD

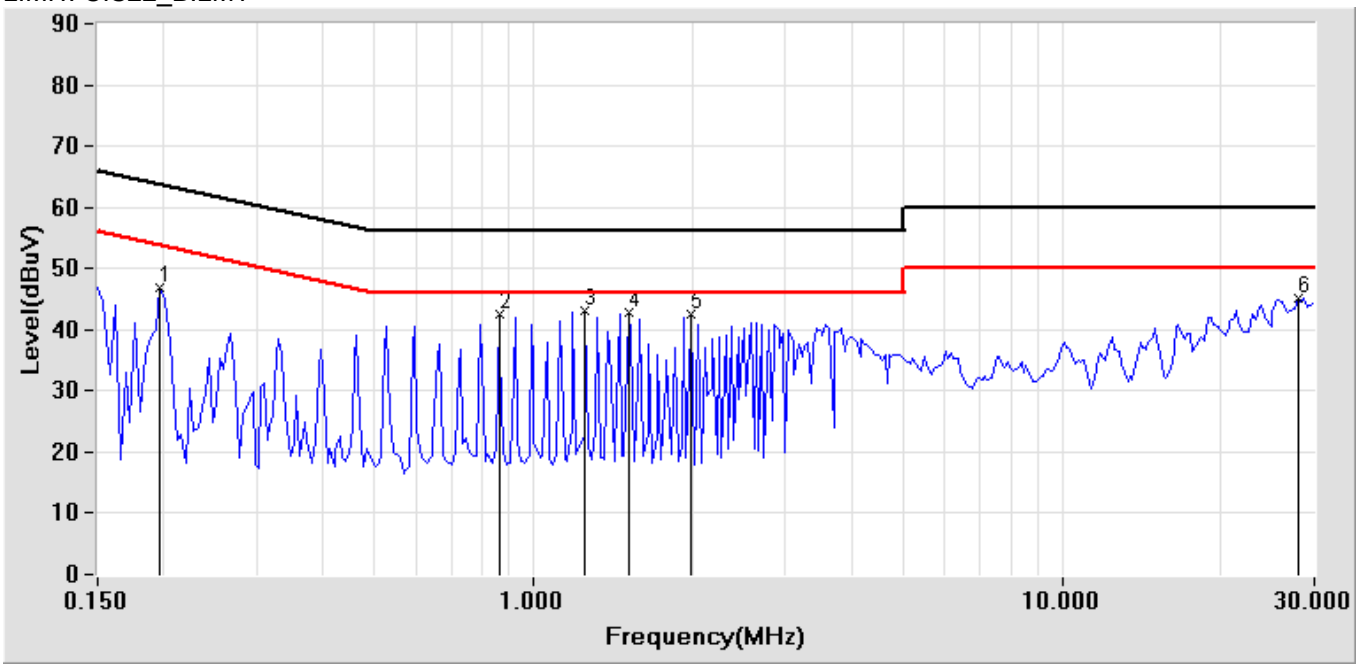
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Neutral
CLIENT:GLOBTEK	DISTANCE:
MODEL: GT-41062-1824-C.E-T3	Report No:
RATING: 230V/50Hz	FILE/DATA#:GLOBTEK.emi/78
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.197	0.20	46.60	45.10	46.80	45.30	63.74	53.74	-16.94	-8.44
0.861	0.30	41.37	38.73	41.67	39.03	56.00	46.00	-14.33	-6.97
1.255	0.30	42.70	38.90	43.00	39.20	56.00	46.00	-13.00	-6.80
1.521	0.30	41.80	39.00	42.10	39.30	56.00	46.00	-13.90	-6.70
1.986	0.30	41.31	39.30	41.61	39.60	56.00	46.00	-14.39	-6.40
27.923	1.26	41.25	35.22	42.51	36.48	60.00	50.00	-17.49	-13.52

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: FULL LOAD

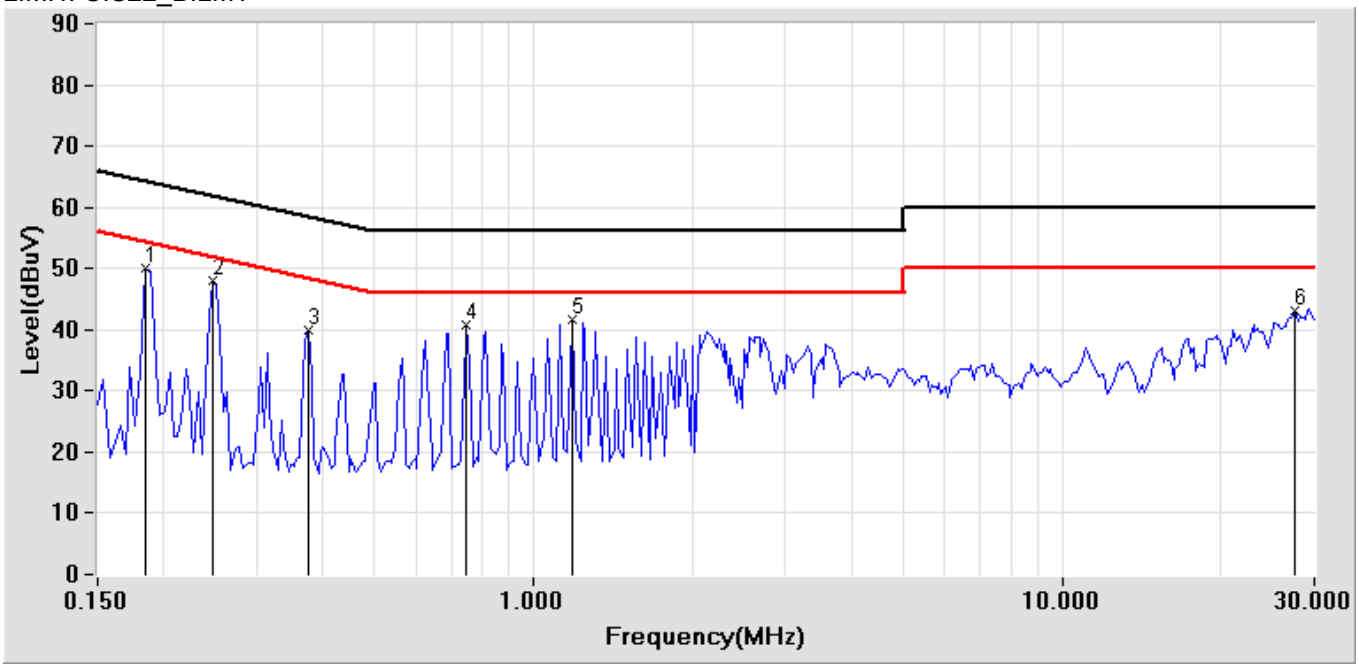
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Line
CLIENT:GLOBTEK	DISTANCE:
MODEL: GT-41062-1824-C.E-T3	Report No:
RATING: 230V/50Hz	FILE/DATA#:GLOBTEK.emi/72
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.185	0.20	48.20	39.60	48.40	39.80	64.26	54.26	-15.86	-14.46
0.248	0.20	46.30	44.90	46.50	45.10	61.82	51.82	-15.32	-6.72
0.377	0.19	38.80	38.10	38.99	38.29	58.35	48.35	-19.36	-10.06
0.748	0.20	39.74	39.31	39.94	39.51	56.00	46.00	-16.06	-6.49
1.185	0.30	40.36	39.10	40.66	39.40	56.00	46.00	-15.34	-6.60
27.494	1.20	35.71	25.04	36.91	26.24	60.00	50.00	-23.09	-23.76

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: HALF LOAD

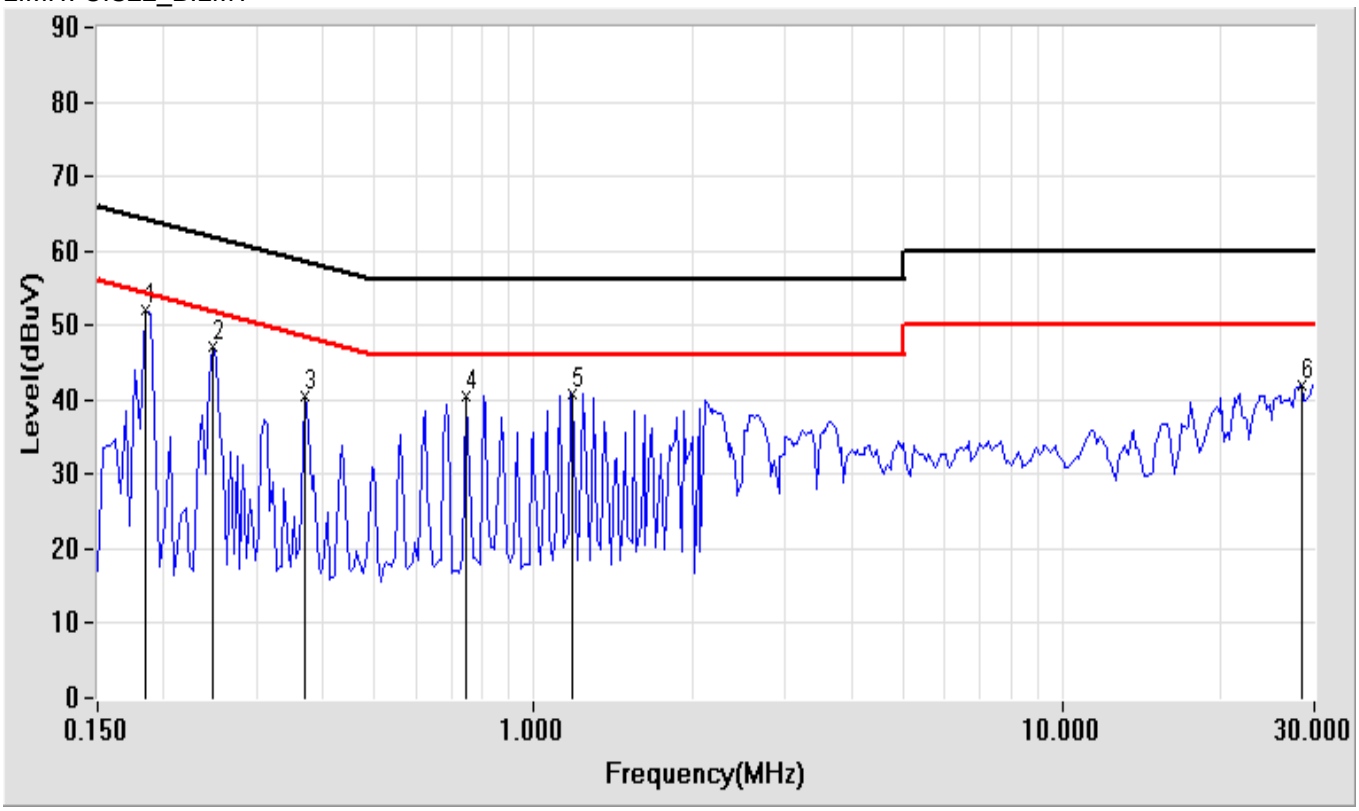
Power Line Conducted Test Data

EUT: POWER ADAPTER	POLARITY: Neutral
CLIENT:GLOBTEK	DISTANCE:
MODEL: GT-41062-1824-C.E-T3	Report No:
RATING:230V/50Hz	FILE/DATA#:GLOBTEK.emi/71
Temperature: 17.0 ℃	OPERATOR: EDDY
Humidity: 55 %	TEST SITE: Conducation2

Frequency	Factor	Meter Reading (dBuV)		Emission Level (dBuV)		Limits (dBuV)		Margin (dB)	
(MHz)	(dB)	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.185	0.20	50.88	40.14	51.08	40.34	64.26	54.26	-13.18	-13.92
0.248	0.20	47.96	45.43	48.16	45.63	61.82	51.82	-13.66	-6.19
0.369	0.19	39.30	38.30	39.49	38.49	58.52	48.52	-19.03	-10.03
0.744	0.20	39.70	39.40	39.90	39.60	56.00	46.00	-16.10	-6.40
1.185	0.30	40.22	39.10	40.52	39.40	56.00	46.00	-15.48	-6.60
28.377	1.27	33.27	24.63	34.54	25.90	60.00	50.00	-25.46	-24.10

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

LIMIT: CIS22_B.LMT



Test Mode: HALF LOAD

3 Radiated Emission Measurement

3.1 Instrument

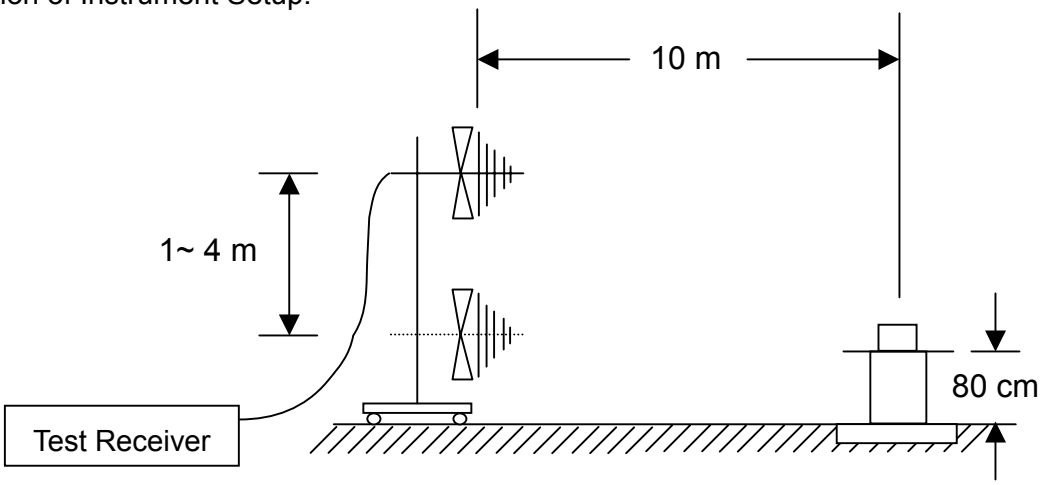
☒OATS 1

Instrument	Manufacturer	Model	Serial No.	Last Calibration
EMI Test Receiver	Rohde & Schwarz	ESI 07	830154/002	2004/07/24
Antenna	Schaffner	CBL6112B	2610	2004/02/25
Pre-Amplifier	Schaffner	CPA9231A	3351	2004/09/30
RF Cable	IETC	CBL01	N/A	2004/09/15

Note: All instrument upon which need to be calibrated are within calibration period of 1 year.

3.2 Block Diagram of Test Configuration

Configuration of Instrument Setup.



3.3 Radiated Limit

EN 55022

Frequency (MHz)	☐ Class A	☒ Class B
	Quasi-Peak dB(uV/m)	Quasi-Peak dB(uV/m)
30 ~ 230	40.0	30.0
230 ~ 1000	47.0	37.0

3.4 Instrument configuration

3.4.1 Set the EMI test receiver frequency range from 30 MHz to 1000 MHz.

3.4.2 Set the EMI test receiver bandwidth at 120 kHz.

3.4.3 Set the EMI test receiver detector as Quasi-Peak (Q.P.).

3.5 Configuration of Measurement

3.5.1 The EUT was placed on a non-conductive table whose total height equaled 80cm. The turntable can rotate 360 degree to determine the position of the maximum emission level.

3.5.2 The EUT was set 10 meters away from the receiving antenna that was mounted on a non-conductive mast. The antenna can move up and down between 1 to 4 meters to find out the maximum emission level.

3.5.3 The initial testing identified the frequency that has the highest disturbance relative to the limit while operating the EUT in typical modes of operation and cable positions in a test setup representative of typical system configuration.

3.5.4 The identification of the frequency of highest emission with respect to the limit was found by investigating emissions at a number of significant frequencies. The probable frequency of maximum emission had been found and that the associated cable and EUT configuration and mode of operation had been identified.

3.6 Test Result

PASS.

The final tests data are shown on the following pages.

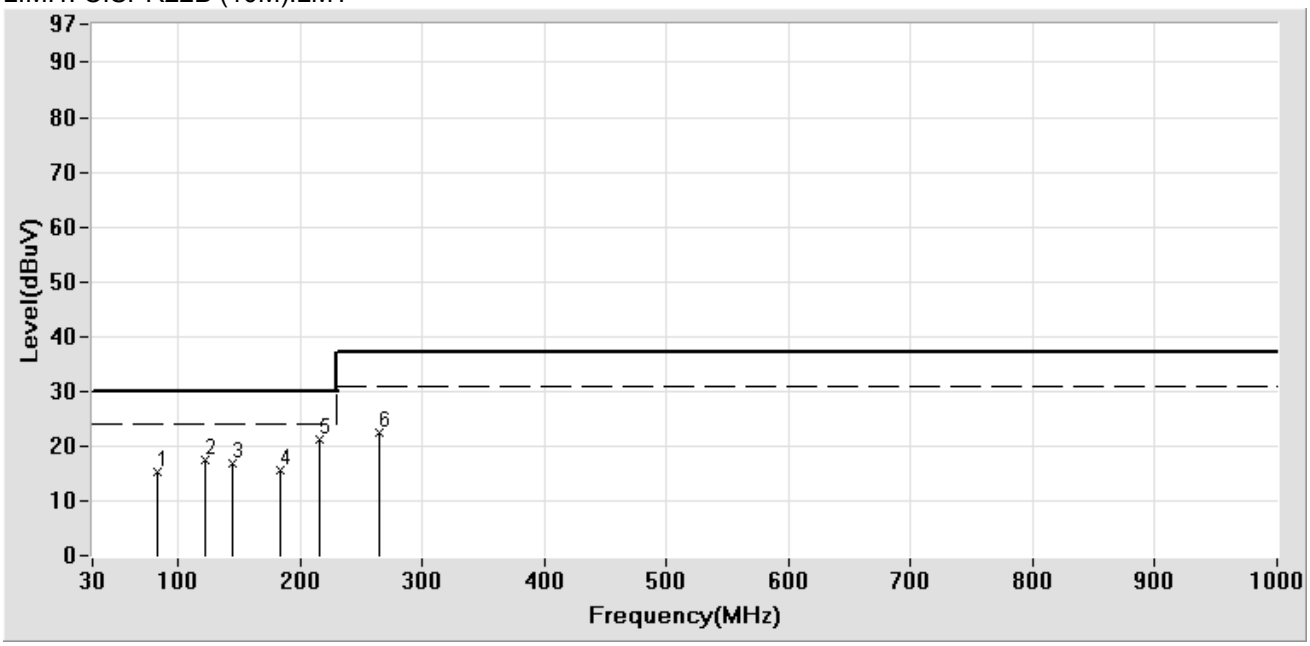
Radiated Emission Measurement Data

EUT: ADAPTER	POLARITY: Horizontal
CLIENT:GLOBTEK	DISTANCE: 10 M
MODEL: GT-41062-1805-C.E-T2	Report No:
RATING: 230V/50Hz	FILE/DATA#:GLOBTEK.emi/107
Temperature: 26 ℃	OPERATOR: BRIAN
Humidity: 52 %	TEST SITE: OATS1

Frequency	Factor	Meter Reading	Emission Level	Limits	Margin
(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)
83.126 **	-21.21	36.51	15.30	30.00	-14.70
122.463 **	-17.71	35.18	17.47	30.00	-12.53
145.216 **	-18.41	35.26	16.85	30.00	-13.15
184.126 **	-15.90	31.56	15.66	30.00	-14.34
215.325 **	-12.95	34.26	21.31	30.00	-8.69
265.004 **	-10.45	32.89	22.44	37.00	-14.56

Remark:
1. " * " Mark means readings are Peak Values.
2. " ** " Mark means readings are Quasi-Peak values.
3. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

LIMIT: CISPR22B (10M).LMT



Test Mode: FULL LOAD

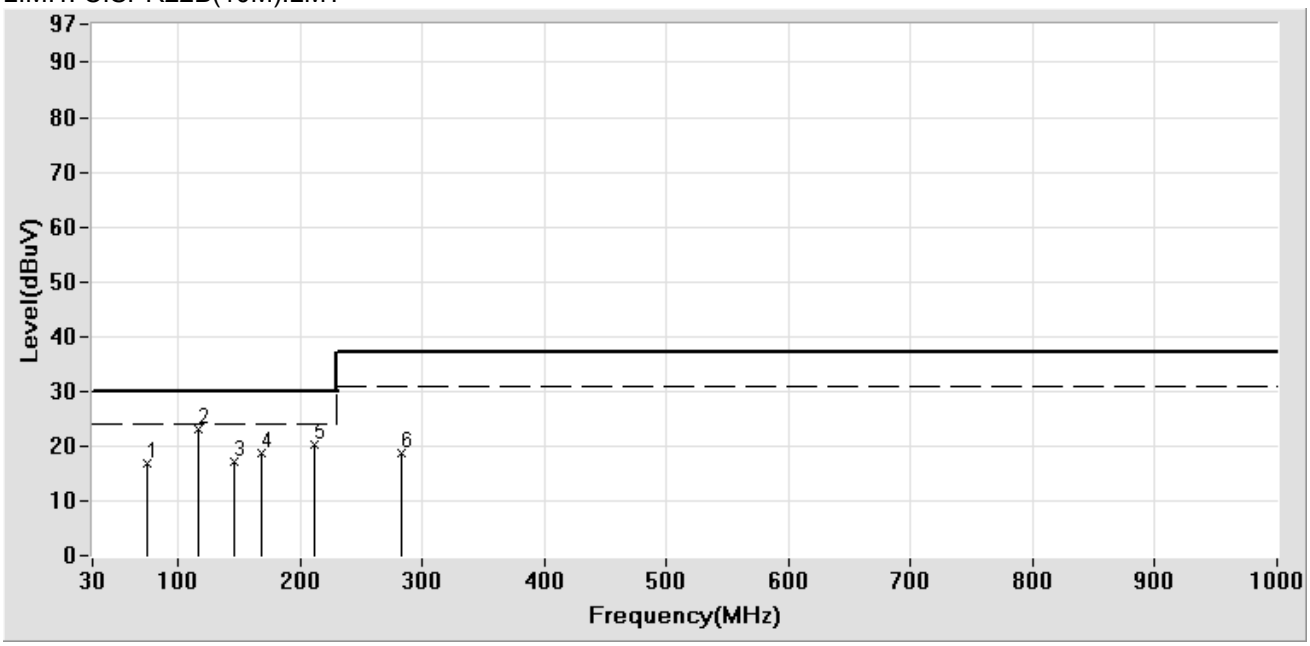
Radiated Emission Measurement Data

EUT: ADAPTER	POLARITY: Vertical
CLIENT:GLOBTEK	DISTANCE: 10 M
MODEL: GT-41062-1805-C.E-T2	Report No:
RATING:230V/50Hz	FILE/DATA#:GLOBTEK.emi/106
Temperature: 26 ℃	OPERATOR: BRIAN
Humidity: 52 %	TEST SITE: OATS1

Frequency	Factor	Meter Reading	Emission Level	Limits	Margin
(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)
74.461 **	-19.42	36.18	16.76	30.00	-13.24
116.235 **	-13.47	36.55	23.08	30.00	-6.92
146.352 **	-16.15	33.45	17.30	30.00	-12.70
168.254 **	-15.58	34.16	18.58	30.00	-11.42
211.016 **	-12.91	33.16	20.25	30.00	-9.75
283.150 **	-13.53	32.15	18.62	37.00	-18.38

Remark:
1. " * " Mark means readings are Peak Values.
2. " ** " Mark means readings are Quasi-Peak values.
3. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

LIMIT: CISPR22B(10M).LMT



Test Mode: FULL LOAD

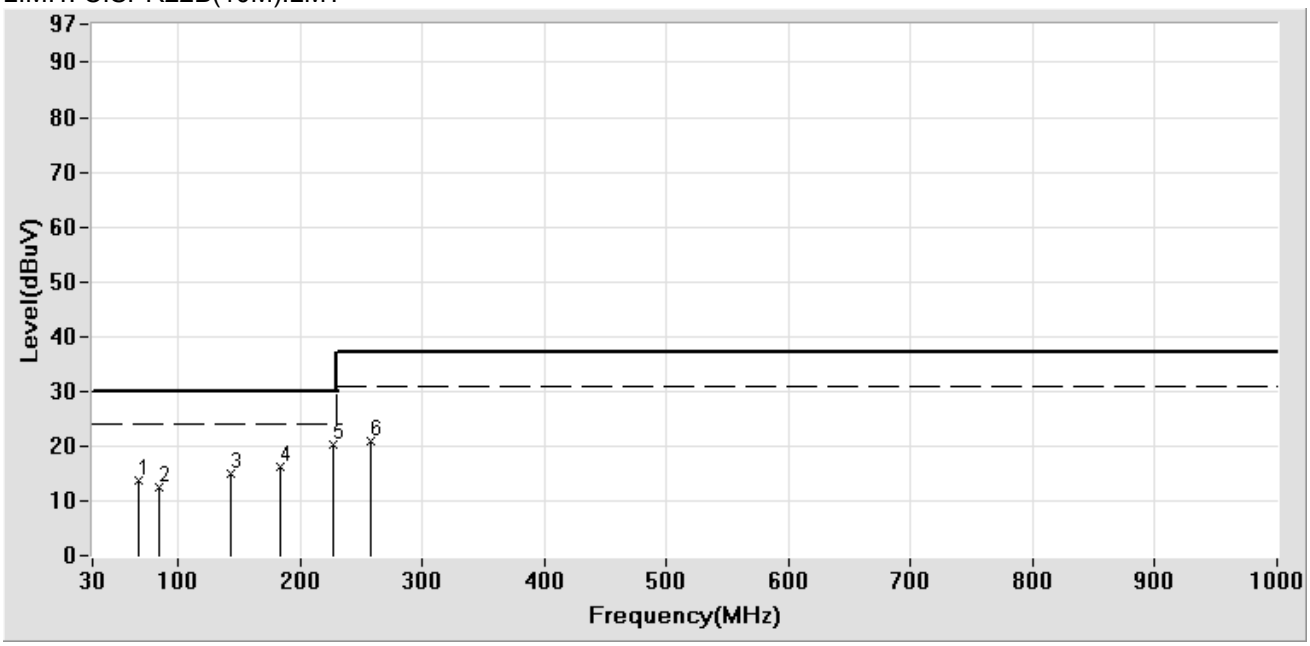
Radiated Emission Measurement Data

EUT: ADAPTER	POLARITY: Horizontal
CLIENT:GLOBTEK	DISTANCE: 10 M
MODEL: Gt-41062-1805-C.E-T3	Report No:
RATING: 230V/50Hz	FILE/DATA#:GLOBTEK.emi/110
Temperature: 26℃	OPERATOR: BRIAN
Humidity: 52 %	TEST SITE: OATS1

Frequency	Factor	Meter Reading	Emission Level	Limits	Margin
(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)
67.923 **	-21.18	34.90	13.72	30.00	-16.28
84.943 **	-19.53	32.11	12.58	30.00	-17.42
142.845 **	-19.70	34.73	15.03	30.00	-14.97
183.959 **	-15.93	32.06	16.13	30.00	-13.87
226.452 **	-12.43	32.81	20.38	30.00	-9.62
257.314 **	-11.28	32.29	21.01	37.00	-15.99

Remark:
1. " * " Mark means readings are Peak Values.
2. " ** " Mark means readings are Quasi-Peak values.
3. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

LIMIT: CISPR22B(10M).LMT



Test Mode: FULL LOAD

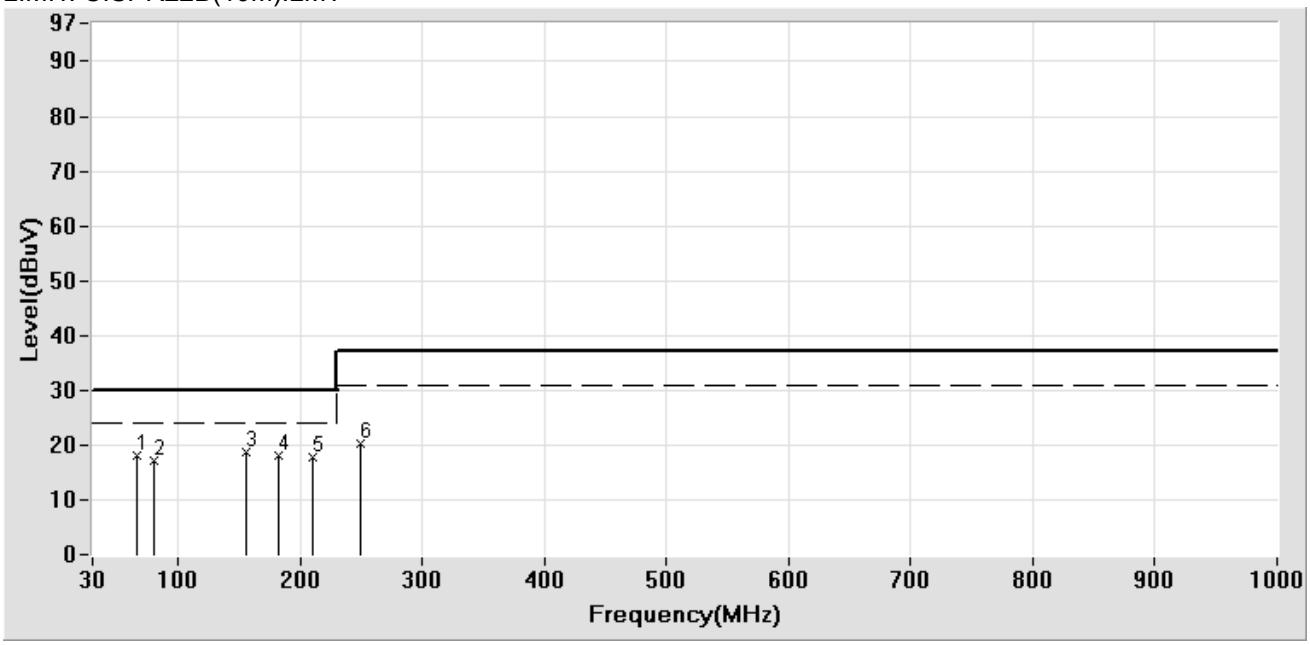
Radiated Emission Measurement Data

EUT: ADAPTER	POLARITY: Vertical
CLIENT:GLOBTEK	DISTANCE: 10 M
MODEL: GT-41062-1805-C.E-T3	Report No:
RATING:230V/50Hz	FILE/DATA#:GLOBTEK.emi/111
Temperature: 26 ℃	OPERATOR: BRIAN
Humidity: 52%	TEST SITE: OATS1

Frequency	Factor	Meter Reading	Emission Level	Limits	Margin
(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)
66.210 **	-17.62	35.71	18.09	30.00	-11.91
80.488 **	-19.22	36.52	17.30	30.00	-12.70
156.488 **	-14.44	33.13	18.69	30.00	-11.31
181.931 **	-16.49	34.59	18.10	30.00	-11.90
210.821 **	-12.88	30.69	17.81	30.00	-12.19
249.899 **	-11.06	31.47	20.41	37.00	-16.59

Remark:
1. " * " Mark means readings are Peak Values.
2. " ** " Mark means readings are Quasi-Peak values.
3. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

LIMIT: CISPR22B(10M).LMT



Test Mode: FULL LOAD

4 Harmonic Current Emission Measurement

This Device with a rated power is 4.2W, which is less than 75W, so it is not specified in this standard.

5 Voltage Fluctuations and Flicker Measurement (EN 61000-3-3)

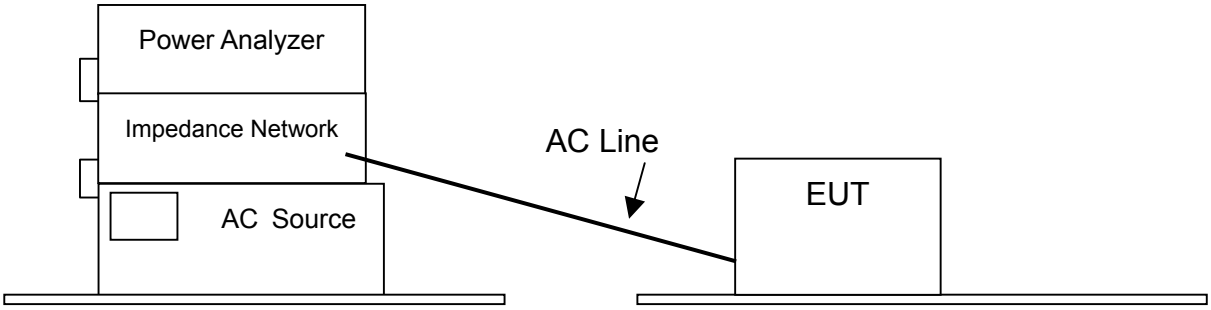
5.1 Instrument

Instrument	Manufacturer	Model	Serial No.	Last Calibration
Programmable AC Source	Chroma	6530	3447	2004/12/16
Universal Power Analyzer	VOLTECH	PM3000A	AL50/4717	2004/05/06
Reference Impedance Network	VOLTECH	IEC STANDADARD 555	IB521/4862	2004/07/21

Note: All instrument upon which need to be calibrated are within calibration period of 1 year.

5.2 Block Diagram of Test Configuration

Configuration of Instrument Setup.



5.3 Test Limit

The following limits apply:

- the value of P_{st} shall not be greater than 1.0;
- the value of P_{lt} shall not be greater than 0.65;
- the relative steady-state voltage change, $d_{c'}$ shall not exceed 3.3%;
- the maximum relative voltage change, $d_{max'}$ shall not exceed 4%;
- the value of d(t) during a voltage change shall not exceed 3.3% for more than 500 ms.

5.4 Configuration of Measurement

5.4.1 The EUT with power analyzer is in series and supplied from a power source with the same nominal voltage and frequency as the rated supply voltage.

5.4.2 Set the output of the power analyzer to the rated voltage and frequency of EUT (230V, 50Hz).

5.4.3 Select the test time of observation period for short-term (T_p = 10 min) and long-term (T_p = 2 hrs). The test result was collected and analyzed by the computer.

5.5 Test Result

PASS.

The measured result is shown on following pages.

Mode 1: GT-41062-1805-C.E-T2

Product:	POWER ADAPTER	2004 Nov 2 5:23pm
Serial no:	GT-41062-1805-C.E-T2	Page 1 of 1
Description:	Temperature:23'C Humidity:58%	
Result Name:	Flicker	
Voltech IEC1000-3 Windows Software 3.05.04	Test Date:	2004 Nov 2 4:35pm
Type of Test:	Flickermeter Test - Table	
Power Analyzer:	Voltech PM3000A v2.19 s/n 4717	
AC Source:	Mains / Manual Source	
Overall Result: **PASS**	Notes: Measurement method - Voltage	

	Pst	dc (%)	dmax (%)	d(t) > 3.3%(ms)
Limit	1.000	3.300	4.000	500
Reading 1	0.071	0.017	0.038	0

Mode 3: GT-41062-1805-C.E-T3

Product:	POWER ADAPTER	2004 Nov 2 6:19pm
Serial no:	GT-41062-1805-C.E-T3	Page 1 of 1
Description:	Temperature:23'C Humidity:58%	
Result Name:	Flicker	
Voltech IEC1000-3 Windows Software 3.05.04		Test Date: 2004 Nov 2 6:07pm
Type of Test:	Flickermeter Test - Table	
Power Analyzer:	Voltech PM3000A v2.19 s/n 4717	
AC Source:	Mains / Manual Source	
Overall Result: **PASS**	Notes: Measurement method - Voltage	

	Pst	dc (%)	dmax (%)	d(t) > 3.3%(ms)
Limit	1.000	3.300	4.000	500
Reading 1	0.071	0.017	0.038	0

6 Electrostatic Discharge Immunity Test (IEC 61000-4-2)

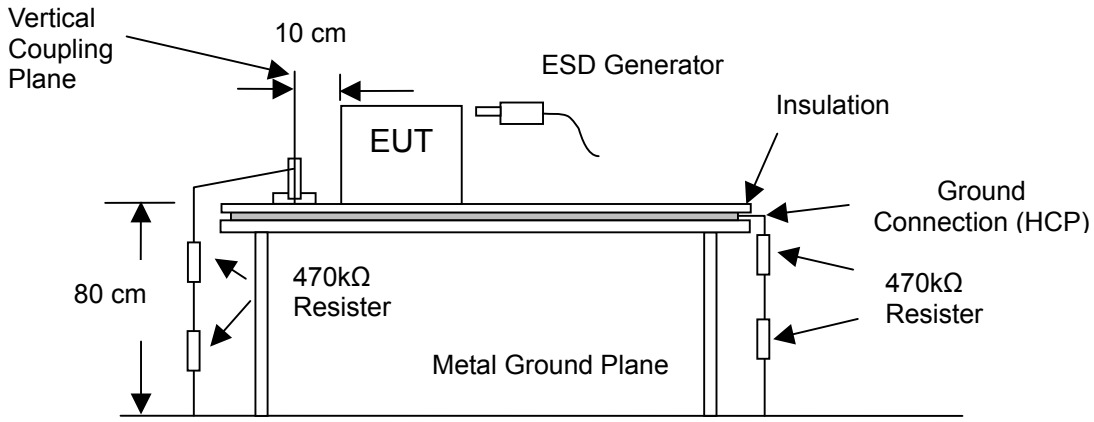
6.1 Instrument

Instrument	Manufacturer	Model	Serial No.	Last Calibration
ESD Simulator	Keytek	MZ-15/EC	205245	2004/09/18

Note: All instrument upon which need to be calibrated are within calibration period of 1 year.

6.2 Block Diagram of Test Configuration

Configuration of Instrument Setup.



6.3 Test Levels & Performance Criterion

6.3.1 Test Levels

Level	Contact discharge (kV)	Air discharge (kV)
1	2	2
2	4	4
3	6	8
4	8	15
X	Special	Special

6.3.2 Performance Criterion

Criterion	Description
A	The equipment shall continue to operate as intended without operator intervention, degradation of performance or loss of function is allowed below a performance level specified by the manufacturer when the equipment is used as intended.
B	After the test, the equipment shall continue to operate as intended without operator intervention, degradation of performance or loss of function is allowed.
C	Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of controls by the user in accordance with the manufacturer's instructions.

6.4 Test Requirement

6.4.1 IEC 61000-4-2(EN 55024, EN61204-3) require

Air discharge: ±8 kV

Contact discharge: ±4 kV

Performance criterion: B

6.5 Configuration of Measurement

6.5.1 Static electricity discharges shall be applied only to those points and surfaces of the EUT which are expected to be touched during usual operation, including user access, as specified in the user manual, for example for ribbon and paper roll changes.

6.5.2 The discharges shall be applied in two ways:

a) Contact discharges to the conductive surfaces and to coupling planes:
The EUT shall be exposed to at least 200 discharges, 100 each at negative and positive polarity, at a minimum of four test points (a minimum of 50 discharges at each point). One of the test points shall be subjected to at least 50 indirect discharges (contact) 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 (see IEC 61000-4-2 for use of the Vertical Conducting Plane (VCP)). Tests shall be performed at a maximum repetition

rate of one discharge per second.

b) Air discharge at slots and apertures, and insulating surfaces:
On those parts of the EUT where it is not possible to perform contact discharge testing, the equipment should be investigated to identify user accessible points where breakdown may occur; examples are openings at edges of keys, or in the covers of keyboards and telephone handsets. Such points are tested using the air discharge method. See also IEC 61000-4-2 regarding painted surfaces. This investigation should be restricted to those areas normally handled by the user. A minimum of 10 single air discharges shall be applied to the selected test point for each such area.

6.5.3 The selected points, performed with electrostatic discharge were marked with red labels on the EUT. The ESD generator (gun) was held perpendicular to the surface to which the discharge was applied. The application of electrostatic discharges to the contacts of open connectors is not required.

6.6 Test Result

The performance criterion after tested EN 55024, EN 61204-3:

Air discharge:	☐ **A**	☐ **B**	☐ **C**
Contact discharge:	☒ **A**	☐ **B**	☐ **C**
Indirect discharge:	☒ **A**	☐ **B**	☐ **C**

No air discharge point.

7 Radio-frequency, Electromagnetic field Immunity Test (IEC 61000-4-3)

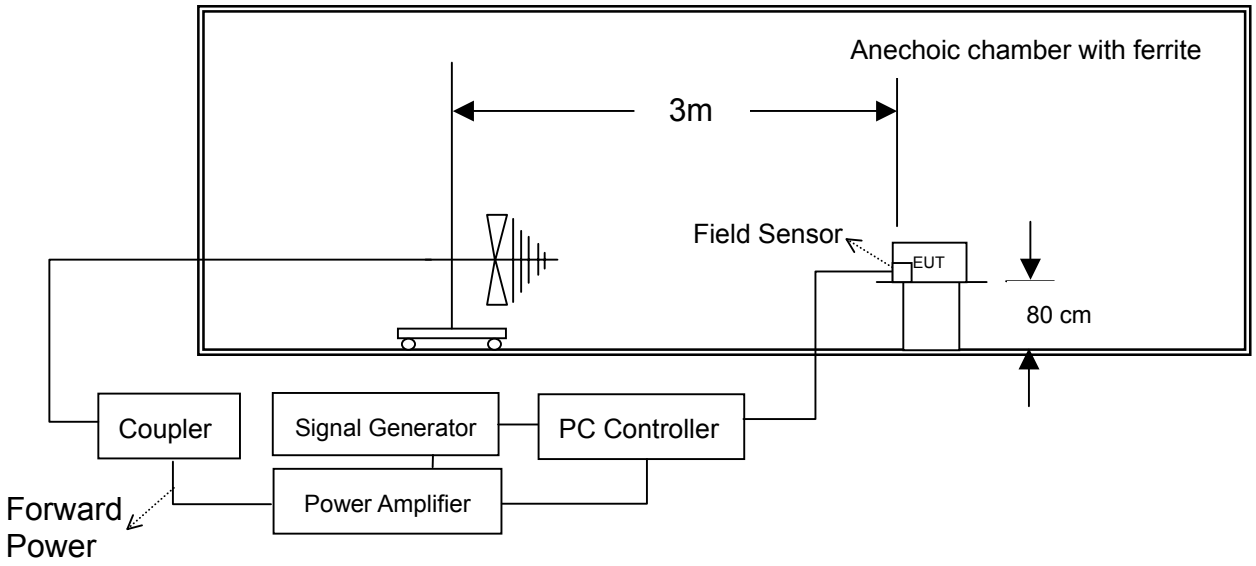
7.1 Instrument

Instrument	Manufacturer	Model	Serial No.	Last Calibration
Signal Generator	ROHDE & SCHWARZ	SMY02	829846/013	2004/06/23
Power Amplifier	KALMUS	225LC 7100LC	8948-1 8948-1	2004/06/24
Field Probe	HOLADAY INDUSTRIES	HI-4422	101635	2004/03/13
Coupler	WERLATONE	C2630	8067	2004/06/15
Bilog Antenna	SCHWARZBECK	VULB9161	4023	2004/09/16

Note: All instrument upon which need to be calibrated are within calibration period of 1 year.

7.2 Block Diagram of Test Configuration

Configuration of Instrument Setup.



7.3 Test Levels & Performance Criterion

7.3.1 Test Levels

Level	Test field strGlobTekth (V/m)
1	1
2	3
3	10
X	Special

7.3.2 Performance Criterion

Criterion	Description
A	The equipment shall continue to operate as intended without operator intervention, degradation of performance or loss of function is allowed below a performance level specified by the manufacturer when the equipment is used as intended.
B	After the test, the equipment shall continue to operate as intended without operator intervention, degradation of performance or loss of function is allowed.
C	Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of controls by the user in accordance with the manufacturer's instructions.

7.4 Test Requirement

7.4.1 IEC 61000-4-3(EN 55024) require:
Frequency range: 80 to 1000 MHz, Field strGlobTekth: 3 V/m, 80% AM (1kHz),
Performance criterion: A

7.4.2 EN 61000-4-3(EN 61204-3) require:
Frequency range: 80 to 1000 MHz, Field strGlobTekth: 3 V/m, 80% AM (1kHz),Performance criterion: B

7.5 Configuration of Measurement

7.5.1 Before testing, the intensity of the established field strGlobTekth was checked by placing the field sensor at a calibration grid point, and with the field generating antenna and cables in the same positions as used for the calibration, the forward and reverse power were measured. The forward power needed to give the calibrated field was evaluated.

7.5.2 After the calibration had been verified, the test field was then generated using the values obtained from the calibration. The EUT and the auxiliary equipment were placed on a table with 0.8 meters height. The EUT was initially placed with one face coincidence with the calibration plane at a distance of 3 meters away from the illuminating antenna (the same as used for the field calibration). Both horizontal and vertical polarizations of the antenna and four sides of the EUT were set for the radiated field immunity test.

7.5.3 In order to survey the performance of the EUT, a CCD camera was used to monitor the EUT performance.

7.6 Test Result

7.6.1 The performance criterion after tested EN 55024
Frequency range: 80 to 1000 MHz (IEC 61000-4-3), ☒ **A** ☐ **B** ☐ **C**

7.6.2 The performance criterion after tested EN 61204-3
Frequency range: 80 to 1000 MHz (EN 61000-4-3), ☒ **A** ☐ **B** ☐ **C**

8 Electrical Fast Transient/Burst Immunity Test (IEC 61000-4-4)

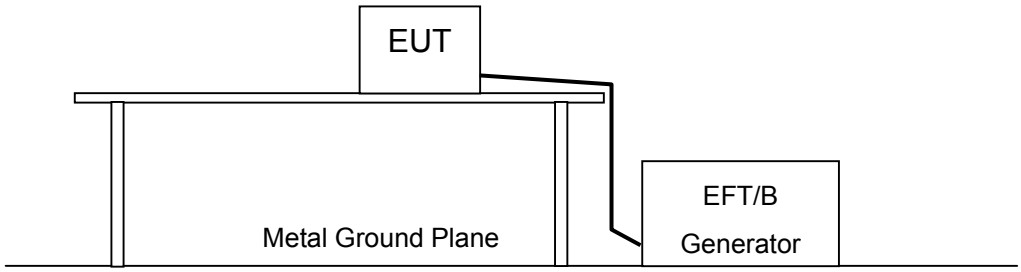
8.1 Instrument

Instrument	Manufacturer	Model	Serial No.	Last Calibration
EMC Pro System	KeyTek	EMC Pro	0003231	2004/03/14

Note: All instrument upon which need to be calibrated are within calibration period of 1 year.

8.2 Block Diagram of Test Configuration

Configuration of Instrument Setup.



8.3 Test Levels & Performance Criterion

8.3.1 Test Levels

Level	On power supply port, PE		On I/O signal, data and control ports	
	Voltage Peak (kV)	Repetition rate (kHz)	Voltage Peak (kV)	Repetition rate (kHz)
1	0.5	5	0.25	5
2	1	5	0.5	5
3	2	5	1	5
4	4	2.5	2	5
X	Special	Special	Special	Special

8.3.2 Performance Criterion

Criterion	Description
A	The equipment shall continue to operate as intended without operator intervention, degradation of performance or loss of function is allowed below a performance level specified by the manufacturer when the equipment is used as intended.
B	After the test, the equipment shall continue to operate as intended without operator intervention, degradation of performance or loss of function is allowed.
C	Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of controls by the user in accordance with the manufacturer's instructions.

8.4 Test Requirement

8.4.1 5 kHz Repetition frequency

8.4.2 Performance criterion: B

8.4.3 ☒ 1.0 kV input ac power ports for EN 55024.

☒ 1.0 kV input ac power ports for EN 61204-3.

8.5 Configuration of Measurement

8.5.1 The EUT and the auxiliary equipment were placed on a wooden table of 0.8 meters height. The size of ground plane is greater than 1m×1m and project beyond the EUT by at least 0.1m on all sides. The ground plane is connected to the protective earth.

8.5.2 The EUT was connected to the power mains through a coupling device that directly couples the EFT interference signal. Each of the Line, Neutral and Protective Earth (PE) conductors was impressed with burst noise for 1 minute. Both the voltage polarities were applied for each test level. The lGlobTekth of power cord between the coupling device and the EUT was less than 1 meter.

8.6 Test Result

8.6.1 The performance criterion after tested EN 55024:

5 kHz Repetition frequency; 1.0 kV input ac power ports

Performance criterion: ☒ **A** ☐ **B** ☐ **C**

8.6.2 The performance criterion after tested EN 61204-3:

5 kHz Repetition frequency; 1.0 kV input ac power ports

Performance criterion: ☒ **A** ☐ **B** ☐ **C**

9 Surge Immunity Test (IEC 61000-4-5)

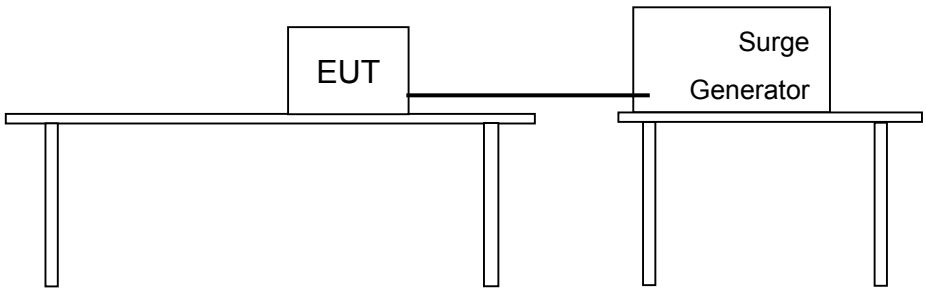
9.1 Instrument

Instrument	Manufacturer	Model	Serial No.	Last Calibration
EMC Pro Systems	KeyTek	EMC Pro	0003234	2004/03/05

Note: All instrument upon which need to be calibrated are within calibration period of 1 year.

9.2 Block Diagram of Test Configuration

Configuration of Instrument Setup.



9.3 Test Levels & Performance Criterion

9.3.1 Test Levels

Level	Open-circuit test voltage (kV) Line to earth	Open-circuit test voltage (kV) Line to line
1	0.5	--
2	1.0	0.5
3	2.0	1.0
4	4.0	--
X	Special	--
NOTE: x is an open class. This level can be specified in the product specification.		

9.3.2 Performance Criterion

Criterion	Description
A	The equipment shall continue to operate as intended without operator intervention, degradation of performance or loss of function is allowed below a performance level specified by the manufacturer when the equipment is used as intended.
B	After the test, the equipment shall continue to operate as intended without operator intervention, degradation of performance or loss of function is allowed.
C	Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of controls by the user in accordance with the manufacturer's instructions.

9.4 Test Requirement

9.4.1 EN 55024:

☒ Line to line: +/- 1kV (peak) test voltage

☒ Line to earth (ground): +/- 2kV (peak) test voltage

9.4.2 EN 61204-3:

☒ Line to line: +/- 1kV (peak) test voltage

☒ Line to earth (ground): +/- 2kV (peak) test voltage

9.4.3 Performance criterion: **B**

9.5 Configuration of Measurement

9.5.1 The EUT and the auxiliary equipment were placed on a table of 0.8m heights above a metal ground reference plane. The size of ground plane is greater than 1m×1m and project beyond the EUT by at least 0.1m on all sides. The ground plane is connected to the protective earth. The lGlobTekth of power cord between the coupling device and the EUT was less than 2 meters (provided by the manufacturer).

9.5.2 The EUT was connected to the power mains through a coupling device that directly couples the Surge interference signal. The surge noise was applied synchronized to the voltage phase at the zero crossing and the peak value of the AC voltage wave (positive and negative).

9.5.3 The surges were applied line to line and line(s) to earth. When testing line to earth the

test voltage was applied successively between each of the lines and earth. Steps up to the test level specified increased the test voltage. All lower levels including the selected test level were tested. The polarity of each surge level included positive and negative test pulses.

9.6 Test Result

9.6.1 The performance criterion after tested EN 55024:

☒ +/- 1kV(peak): Line to line

Performance criterion: ☒ **A** ☐ **B** ☐ **C**

☒ +/- 2kV(peak): Line to earth (ground)

Performance criterion: ☐ **A** ☐ **B** ☐ **C**

9.6.2 The performance criterion after tested EN 61204-3:

☒ +/- 1kV(peak): Line to line

Performance criterion: ☒ **A** ☐ **B** ☐ **C**

☒ +/- 2kV(peak): Line to earth (ground)

Performance criterion: ☐ **A** ☐ **B** ☐ **C**

10 Radio-frequency, Conducted Disturbances Immunity Test (IEC 61000-4-6)

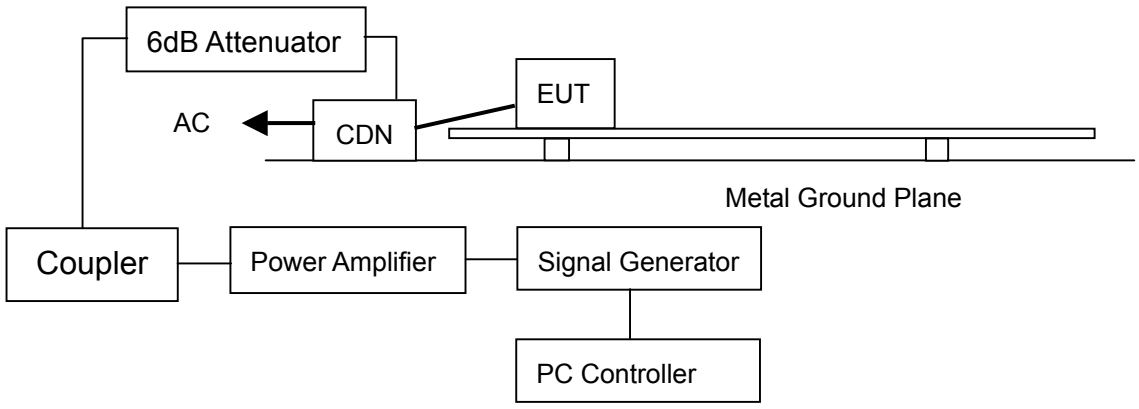
10.1 Instrument

Instrument	Manufacturer	Model	Serial No.	Last Calibration
Signal Generator	ROHDE & SCHWARZ	SMY02	829846/013	2004/06/23
Power Amplifier	KALMUS	225LC 7100LC	8948-1 8948-1	2004/06/24
Coupler	WERLATONE	C2630	8067	2004/06/15
6dB Attenuator	BIRD Electronic Corp.	25-A-MFN-06	00026	2004/06/15
M3 C.D.N	FISCHER	FCC-801-M3-25A	2045	2004/05/08
M2 C.D.N	SCHAFENER	M216	16394	2004/05/08
EM-CLAMP	SCHAFFNER	KEMZ 801	17037	2004/03/13

Note: All instrument upon which need to be calibrated are within calibration period of 1 year.

10.2 Block Diagram of Test Configuration

Configuration of Instrument Setup.



10.3 Test Levels

Level	Voltage Level (V)
1	1
2	3
3	10
X	Special

10.4 Test Requirement

10.4.1 Frequency Range is from 0.15 to 80MHz.

10.4.2 EN 55024:
Field strGlobTekth: 3 V, 80% AM (1kHz)
Performance criterion: A

10.4.3 EN 61204-3:
Field strGlobTekth: 3 V, 80% AM (1kHz)
Performance criterion: B

10.5 Configuration of Measurement

10.5.1 The EUT was placed on a table of is 0.1 m height. In Semi-Anechoic chamber A Ground reference plane was placed on the table and a 0.1 meter insulating support was inserted between the EUT and Ground reference plane.

10.5.2 The EUT was connected to the power mains through a Coupling and Decoupling Networks (CDN).

10.5.3 The test was performed with the test generator connected to each of the coupling and decoupling devices in turn while the other non-excited RF input ports of the coupling devices were terminated by a 50 Ω terminator.

10.5.4 The frequency range was swept from 150kHz to 80MHz.using the signal levels established during the setting process, and without the disturbance signal 80% amplitude modulated with a 1 kHz sine wave, pausing to adjust the RF signal level or to switch coupling devices as necessary. The rate of sweep was less than 1.5×10^{-3} decades/s. And the step size of the frequency sweep was also less than 1% of the start and thereafter 1% of the preceding frequency value. The dwell time at each frequency was more than the time necessary for the EUT to be excited, and able to respond.

10.5.5 The EUT was fully excised during the testing and all the selected excise modes were fully interrogated for susceptibility.

10.6 Test Result

10.6.1 The performance criterion after tested EN 55024:
Frequency range: 0.15 to 80 MHz, Field strGlobTekth: 3 V, 80% AM (1kHz),
Performance criterion:☒ **A** ☐ **B** ☐ **C**

10.6.2 The performance criterion after tested EN 61204-3:
Frequency range: 0.15 to 80 MHz, Field strGlobTekth: 3 V, 80% AM (1kHz),
Performance criterion:☒ A ☐ B ☐ C

11 Power frequency magnetic field immunity test (IEC 61000-4-8)

According to EN55024, Clause 4.2.4, Physically large products need not be completely submerged in the magnetic field, only the sensitive devices (such as CRT monitors if they are the only sensitive parts).

The EUT did not contain devices susceptible to magnetic fields; do not need to perform this test.

12 Voltage Dips, Short Interruptions Immunity Test (IEC 61000-4-11)

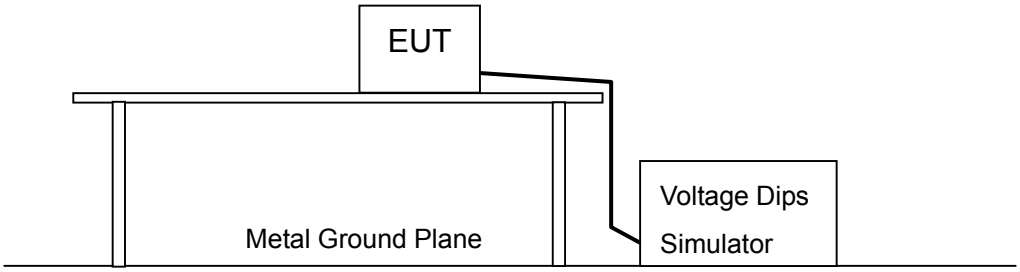
12.1 Instrument

Instrument	Manufacturer	Model	Serial No.	Last Calibration
EMC Pro System	KeyTek	EMC Pro	0003231	2004/03/14

Note: All instrument upon which need to be calibrated are within calibration period of 1 year.

12.2 Block Diagram of Test Configuration

Configuration of Instrument Setup.



12.3 Test Levels

Level (% U_T)	Voltage dip & short interruptions (% U_T)
0	100
40	60
70	30

12.4 Test Requirement

12.4.1 EN 55024:

> 95% Voltage Dips, 0.5 period, Performance criterion: B

30% reduction (Voltage Dips), 25 period, Performance criterion: C

> 95% Voltage Interruptions, 250 period, Performance criterion: C

12.4.2 EN 61204-3:

Voltage Dip 30% 10ms, Performance criterion: B

Voltage Dip 60% 100ms, Performance criterion: C

Voltage Int.>95% 5000ms, Performance criterion: C

12.5 Configuration of Measurement

12.5.1 The power cord was used as supplied by the manufacturer. The EUT was connected to the line output of the Voltage Dips and Interruption Generator.

12.5.2 The EUT was tested for (I) 95% voltage dip of supplied voltage with duration of 10ms, (II) 30% voltage dip of supplied voltage and duration 500ms. Both of the dip tests were carried out for a sequence of three voltage dips with intervals of 10 seconds.

12.5.3 A 95% voltage interruption of supplied voltage with duration of 5000ms was followed, which was a sequence of three voltage interruptions with intervals of 10 seconds.

12.5.4 Voltage reduction was controlled at 0°, 90° and 270° of the voltage phase angle. The performance of the EUT was checked after the voltage dip or interruption.

12.6 Test Result

12.6.1 The performance criterion after tested EN 55024:

> 95% Voltage Dips,	☒ **A**	☐ **B**	☐ **C**
30% reduction (Voltage Dips),	☒ **A**	☐ **B**	☐ **C**
> 95% Voltage Interruptions,	☐ **A**	☒ **B**	☐ **C**

12.6.2 The performance criterion after tested EN 61204-3:

Voltage Dip 30% 10ms	☒ **A**	☐ **B**	☐ **C**
Voltage Dip 60% 100ms	☒ **A**	☐ **B**	☐ **C**
Voltage Int.>95% 5000ms	☐ **A**	☒ **B**	☐ **C**

13 Photographs of Test

13.1 Power Line Conducted Test

Front View

Rear View

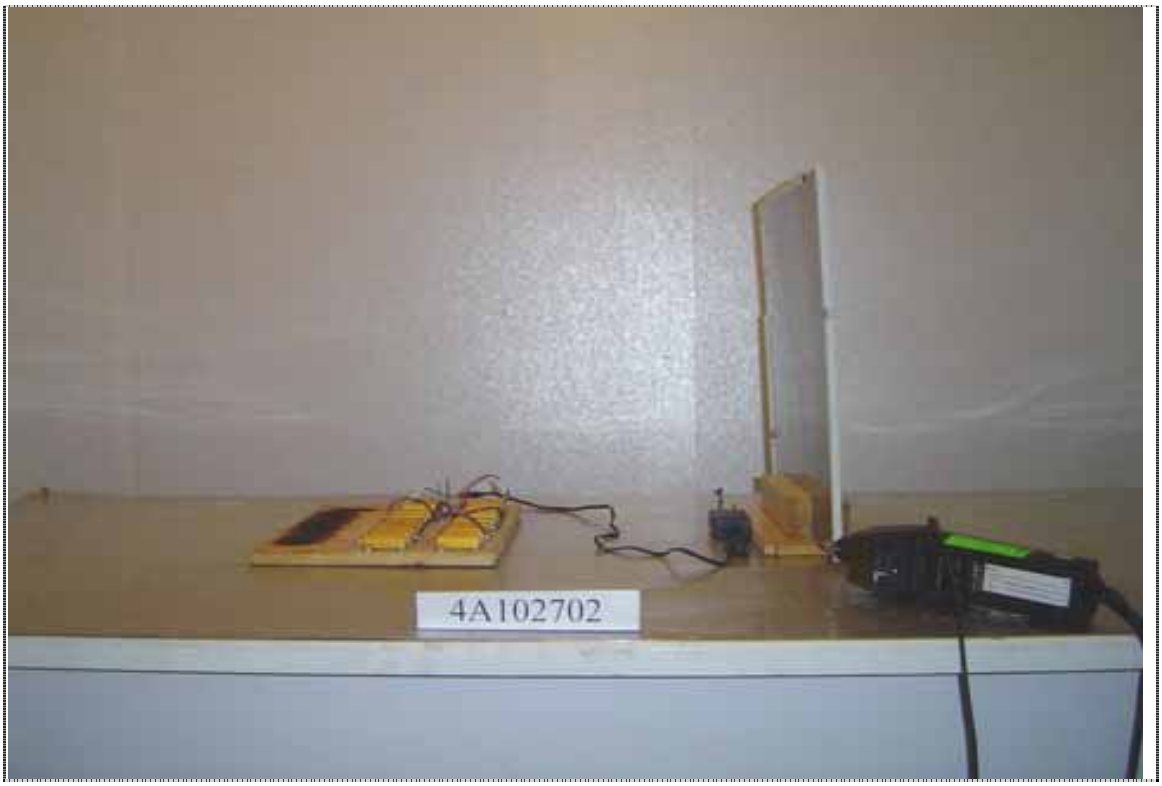
13.2 Radiated Emission Measurement

Front View

Rear View

13.3 Voltage Fluctuations and Flicker Measurement

13.4 Electrostatic Discharge Immunity Test



13.5 Radio-frequency, Electromagnetic field Immunity Test

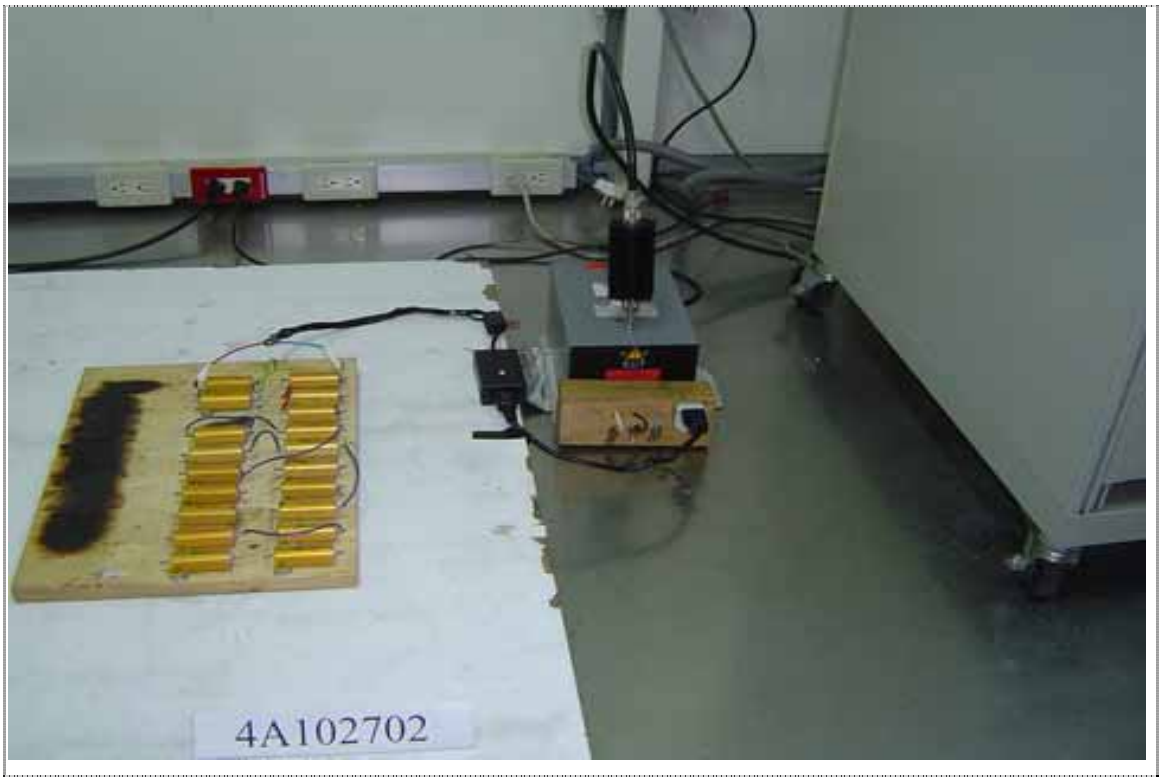
Front View

Rear View

13.6 Electrical Fast Transient/Burst Immunity Test

13.7 Surge immunity Test

13.8 Radio-frequency, Conducted Disturbances Immunity Test



13.9 Voltage Dips, Short Interruptions Immunity Test

14 Photographs of EUT (GT-41062-1805-C.E-T2)

Front View of Appearance

Rear View of Appearance

Inside View of EUT

Component Side of Main board

Solder view of Main board

15 Photographs of EUT (Gt-41062-1805-C.E-T3)

Front View of Appearance

Rear View of Appearance

Inside View of EUT

Component view of Main board

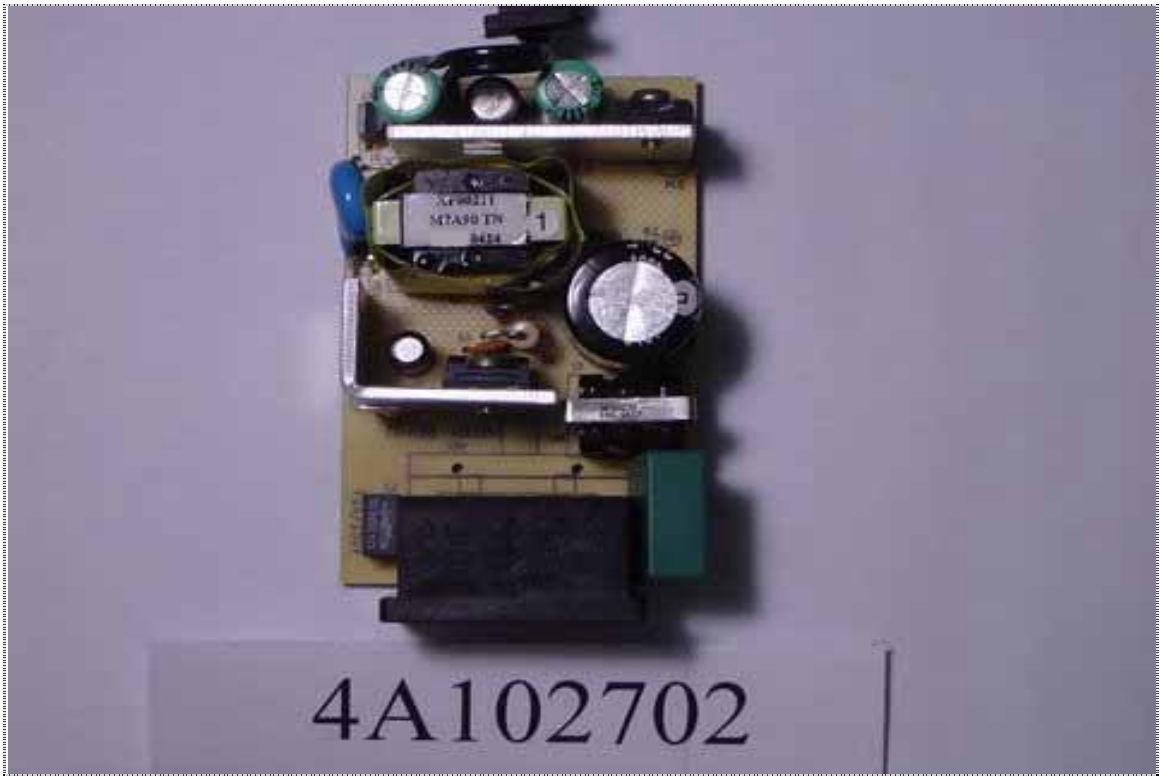
Solder view of Main board

16 Photographs of EUT (GT-41062-1809-C.E-T2)

Front View of Appearance

Rear View of Appearance

Inside View of EUT



Component view of Main board

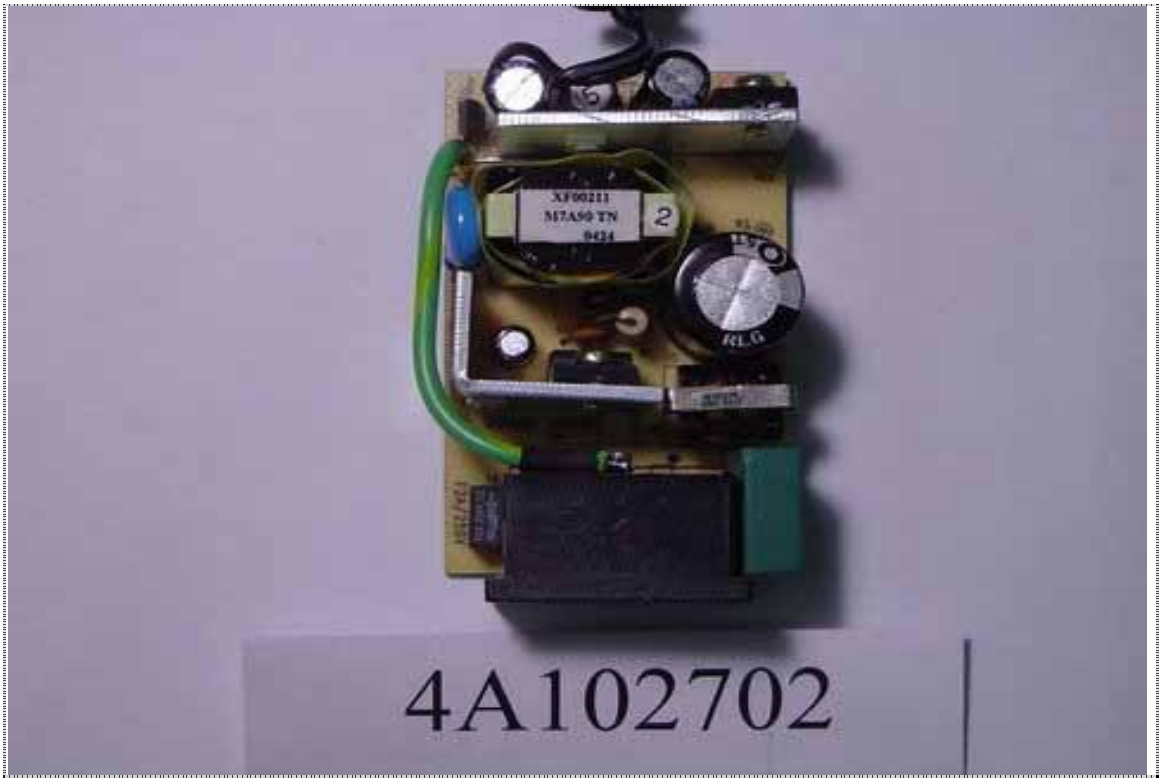
Solder view of Main board

17 Photographs of EUT (GT-41062-1809-C.E-T3)

Front View of Appearance

Rear View of Appearance

Inside View of EUT



Component view of Main board

Solder view of Main board

18 Photographs of EUT (GT-41062-1824-C.E-T2)

Front View of Appearance

Rear View of Appearance

Inside View of EUT

Component view of Main board

Solder view of Main board

19 Photographs of EUT (GT-41062-1824-C.E-T3)

Front View of Appearance

Rear View of Appearance

Inside View of EUT

Component view of Main board

Solder view of Main board

20 Photographs of EUT (GT-41062-1805-C.E-T3A)

Front View of Appearance

Rear View of Appearance

Inside View of EUT

Component view of Main board

Solder view of Main board

21 Photographs of EUT (GT-41062-1809-C.E-T3A)

Front View of Appearance

Rear View of Appearance

Inside View of EUT

Component view of Main board

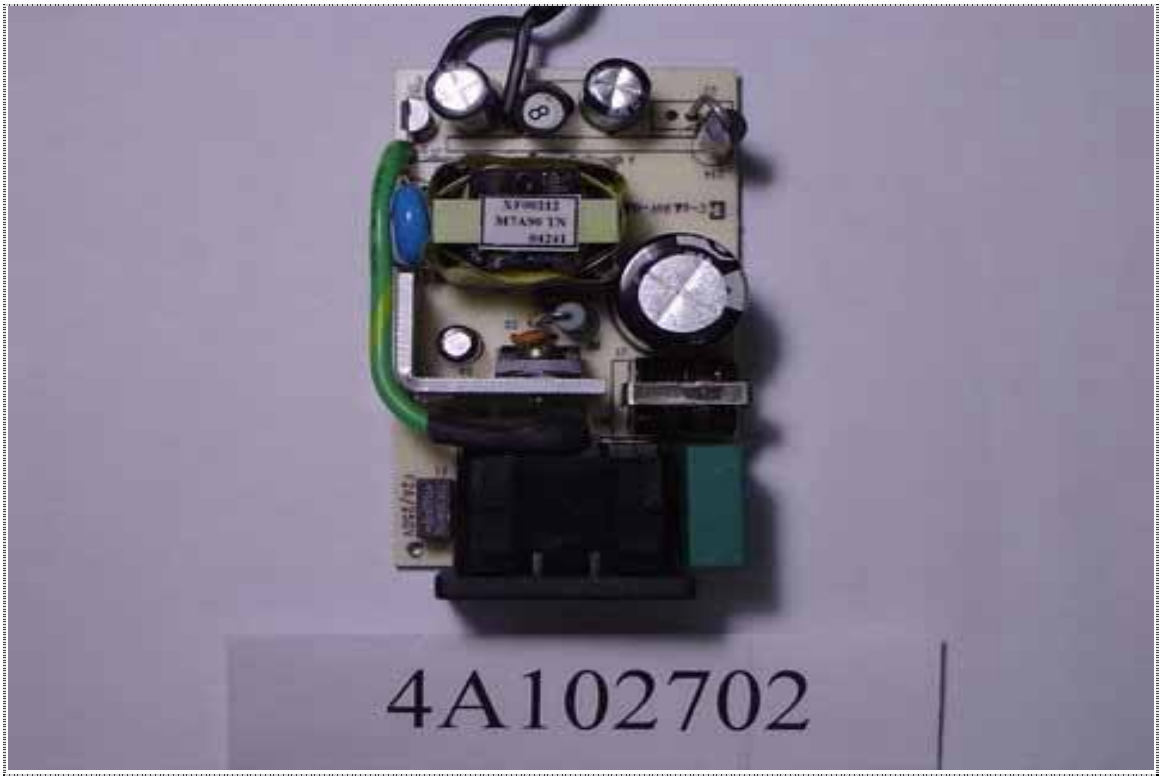
Solder view of Main board

22 Photographs of EUT (GT-41062-1824-C.E-T3A)

Front View of Appearance

Rear View of Appearance

Inside View of EUT



Component view of Main board

Solder view of Main board

CERTIFICATE

Company: Interocean EMC Technology Corp.
<Member No. 1349 >

Facility: OATS 1
(Radiation 3 and 10 meter site)

Location of Facility:
NO. 5-2 Lin 1 Tin-Fu Tsun Lin-Kou Hsiang
Taipei Couty Taiwan 244

This is to certify that the following measuring facility has been registered in accordance with the Regulations for Voluntary Control Measures

Registration No.: R-1040
Date of Registration: April 01 , 2003
This Certificate is valid until March 31 , 2006

Voluntary Control Council for Interference by Information Technology Equipment

CERTIFICATE

Company: Interocean EMC Technology Corp.
<Member No. 1349 >

Facility: OATS 2
(Radiation 3 and 10 meter site)

Location of Facility:
NO. 5-2 Lin 1 Tin-Fu Tsun Lin-Kou Hsiang
Taipei Couty Taiwan 244

This is to certify that the following measuring facility has been registered in accordance with the Regulations for Voluntary Control Measures

Registration No.: R-1041
Date of Registration: April 01 , 2003
This Certificate is valid until March 31 , 2006

Voluntary Control Council for Interference by Information Technology Equipment

CERTIFICATE

Company: Interocean EMC Technology Corp.
<Member No. 1349 >

Facility: OATS 3
(Radiation 3 and 10 meter site)

Location of Facility:
No.12, Lin 2, Ruei-Shu Valley, Ruei-Ping Tsuen,
Lin-Kou Shiang, Taipei County, Taiwan, 244

This is to certify that the following measuring facility has been registered in accordance with the Regulations for Voluntary Control Measures

Registration No.: R-1812
Date of Registration: January 30 , 2004
This Certificate is valid until January 29 , 2007

Voluntary Control Council for Interference by Information Technology Equipment

CERTIFICATE

Company: Interocean EMC Technology Corp.
<Member No. 1349 >

Facility: OATS 4
(Radiation 3 and 10 meter site)

Location of Facility:
No.12, Lin 2, Ruei-Shu Valley, Ruei-Ping Tsuen,
Lin-Kou Shiang, Taipei County, Taiwan, 244

This is to certify that the following measuring facility has been registered in accordance with the Regulations for Voluntary Control Measures

Registration No.: R-1813
Date of Registration: January 30 , 2004
This Certificate is valid until January 29 , 2007

Voluntary Control Council for Interference by Information Technology Equipment

CERTIFICATE

Company: Interocean EMC Technology Corp.
<Member No. 1349 >

Facility: Conducted Room
(Mains Ports Conducted Interference Measurement)

Location of Facility:
NO. 5-2 Lin 1 Tin-Fu Tsun Lin-Kou Hsiang
Taipei Couty Taiwan 244

This is to certify that the following measuring facility has been registered in accordance with the Regulations for Voluntary Control Measures

Registration No.: C-1094
Date of Registration: April 01 , 2003
This Certificate is valid until March 31 , 2006

Voluntary Control Council for Interference by Information Technology Equipment

CERTIFICATE

Company: Interocean EMC Technology Corp.
<Member No. 1349 >

Facility: Conduction Area 3
(Mains Ports Conducted Interference Measurement)

Location of Facility:
No.12, Lin 2, Ruei-Shu Valley, Ruei-Ping Tsuen,
Lin-Kou Shiang, Taipei County, Taiwan, 244

This is to certify that the following measuring facility has been registered in accordance with the Regulations for Voluntary Control Measures

Registration No.: C-1943
Date of Registration: January 30 , 2004
This Certificate is valid until January 29 , 2007

Voluntary Control Council for Interference by Information Technology Equipment

CERTIFICATE

Company: Interocean EMC Technology Corp.
<Member No. 1349 >

Facility: Conduction Area 4
(Mains Ports Conducted Interference Measurement)

Location of Facility:
No.12, Lin 2, Ruei-Shu Valley, Ruei-Ping Tsuen,
Lin-Kou Shiang, Taipei County, Taiwan, 244

This is to certify that the following measuring facility has been registered in accordance with the Regulations for Voluntary Control Measures

Registration No.: C-1944
Date of Registration: January 30 , 2004
This Certificate is valid until January 29 , 2007

Voluntary Control Council for Interference by Information Technology Equipment

Industry Canada Industrie Canada
http://strategis.ic.gc.ca

October 9, 2002

Our File: 46405- 4437
Submission: 44631

Mr. Mike Huang
Interocean EMC Technology Corp.
No. 5-2 Lin 1 Tin-Fu Tsun,
Lin-Kou Hsiang
Taipei, Taiwan

Dear Mr. Huang:

The Bureau has received your test report for the Open Area Test Site located at Taipei, Taiwan. I have reviewed the report and find it complies with RSS 212, Issue 1 (Provisional).

The site is acceptable to Industry Canada for the performance of radiated measurements.

Please reference the file number " IC 4437-1 " in the body of all test reports containing measurements made on your OATS #1 and " IC 4437-2 " for measurements made on your OATS #2.

This reference number is the indication to the Industry Canada Certification Officers that the site meets the requirements of RSS 212, Issue 1 (Provisional). Your company has been added to our published list of filed sites on the Bureau's web page. Please keep the contact information current by notifying us if it changes or is in error.

Keep informed of the latest Industry Canada regulations by visiting the Bureau's site on the World Wide Web: **http://spectrum.ic.gc.ca/deblab/english/debintre.html**

Whenever major construction or repairs to the site are completed, a re-submission of the site attenuation characteristics will be required, or every three years.

Yours sincerely,

Brian Kasper

Brian Kasper

Head, EMC and Wireless Evaluation
Certification and Engineering Bureau
3701 Carling Ave., Building 94
P.O. Box 11490, Station "H"
Ottawa, Ontario
K2H 8S2
Tel. No. (613) 990-5320
Fax. No. (613) 990-4752

Canada

Nemko

Nemko Laboratory Authorisation

Aut. No.: ELA 181A

EMC Laboratory: **Interocean EMC Technology Corp.**
No. 5-2, Lin 1, Tin-Fu Tsun, Lin-Kou Hsiang,
Taipei County
TAIWAN R.O.C.

Scope of Authorization: **All standards for EMC and radio transmission that are listed on the accompanying page.**

Nemko has assessed the quality assurance system, the testing facilities, qualifications and testing practices of the relevant parts of the organization. The quality assurance system of the Laboratory has been validated against ISO/IEC 17025 or equivalent. The laboratory also fulfils the conditions described in Nemko Document NLA -10. During the visit by the Nemko representative it was found that the Laboratory is capable of performing tests within the Scope of the Authorisation.

Accordingly, Nemko will normally accept test results from the laboratory on a partial or complete basis for certification of the products.

In order to maintain the Authorisation, the information given in the pertinent NLA-10 must be carefully followed. Nemko is to be promptly notified about any changes in the situation at the Laboratory, which may affect the basis for this Authorisation. The Authorisation may be withdrawn at any time if the conditions are no longer considered to be fulfilled.

The Authorisation is valid through 31. December 2005.

Oslo, 19 January 2005

For Nemko AS:

Jon Fredrik Mo, Nemko ELA Co-ordinator

NLA 3 ED3

Nemko AS Gaustadalleen 30 P.O.Box 73 Blindern N0314 Oslo Norway T +47 22 96 03 30 F +47 22 96 05 30 Enterprise number NO974474332

Nemko

Nemko Laboratory Authorisation

Aut. No.: ELA 181A

SCOPE OF AUTHORIZATION

BASIC TESTS AND ASSOCIATED STANDARDS

Capability to perform a basic test implies also that any product (family) standard calling up this basic test is also within the scope if mentioned below or not.

Disturbance emissions		
Electromagnetic radiation disturbance, 9 kHz to 30 MHz, re.: EN 55011 (CISPR 11), EN 60945 (IEC 60945)	**Electromagnetic radiation disturbance, 30 to 1000 MHz, re.:** EN 55011 (CISPR 11), EN 55013 (CISPR 13), EN 55022 (CISPR 22), ANSI C63.4	**Electromagnetic radiation disturbance, above 1 GHz, re.:** EN 55011 (CISPR 11), EN 55022 (CISPR 22)
Electromagnetic radiation disturbance, 9 kHz to 30 MHz, "Van Veen loop", re: EN 55015 (CISPR 15)	**Mains terminal disturbance voltage, re** EN 55011 (CISPR 11), EN 55013 (CISPR 13), EN 55014-1 (CISPR 14-1), EN 55015 (CISPR 15), EN 55022 (CISPR 22), EN 60945 (IEC 60945), ANSI C63.4	**Conducted common-mode disturbance power, 30-1000 MHz, re.:** EN 55013 (CISPR 13) EN 55014-1 (CISPR 14-1)
Conducted terminal disturbance, HF-Z probe, re: EN 55011 (CISPR 11) EN 55014-1 (CISPR 14-1)	**Conducted common-mode disturbance at telecom/network ports, re.:** EN 55022 (CISPR 22)	**Conducted discontinuous disturbance on power port, re.:** EN 55014-1 (CISPR 14-1), section 4.2
Harmonic current emissions, re.: EN 61000-3-2 (IEC 61000-3-2)	**Voltage fluctuations and flicker in low-voltage supply systems, re** EN 61000-3-3 (IEC 61000-3-3), EN 61000-3-11 (IEC 61000-3-11)	**Conducted antenna terminal disturbance, re:** EN 55013 (CISPR 13)
Luminaire insertion loss, re: EN 55015 (CISPR 15)		
Immunity		
Electrostatic discharge immunity test, Re.: EN 61000-4-2 (IEC 61000-4-2)	**Radiated, radio-frequency, electromagnetic field immunity test, re.:** EN 61000-4-3 (IEC 61000-4-3) ENV 50140:1993, ENV 50204:1995	**Electrical fast transient/burst immunity test, re.:** EN 61000-4-4 (IEC 61000-4-4)
Surge immunity test, re.: EN 61000-4-5 (IEC 61000-4-5) ENV 50142:1994	**Immunity to conducted disturbances, induced by radio-frequency fields, re.:** EN 61000-4-6 (IEC 61000-4-6) ENV 50141:1993	**Power frequency magnetic field immunity test, re.:** EN 61000-4-8 (IEC 61000-4-8)
Immunity to voltage dips, short interruptions and voltage variation, re.: EN 61000-4-11 (IEC 61000-4-11)	**Oscillatory wave, re.:** EN 61000-4-12 (IEC 61000-4-12)	

Oslo, 19 January 2005 Jon Fredrik Mo, Nemko ELA Co-ordinator

3(3) NLA 3 ED3

Nemko

Nemko Laboratory Authorisation

Aut. No.: ELA 181A

PRODUCT-FAMILY STANDARDS

Unless specifically noted, only the sections of the standards below which are covered by the capability listing above are assumed covered by this authorisation. When the capability is expanded, more parts of the product standards will be covered.

UPS – Uninterruptible power supplies EN 50091-2:1995 (doc=exp)	*Alarm systems – immunity* EN 50130-4:1995 + A1:98 (doc=exp) + A2 (1.9.07)	*ISM equipment, emission* EN 55011:1998 + A1 :99 (doc=exp) + A2:2002 (doc=1.10.05) CISPR 11:97 + A1 :99 + A2:02
Broadcast receivers – emission EN 55013 :2001 (doc=exp) + A1:03 (doc=1.4.06) CISPR 13 :2001 (mod) +A1:03	*Household appliances – emission* EN 55014-1 :2000 + A1 :01 (doc=exp) + A2 :02 (doc=1.10.05) CISPR 14-1 :2000 + A1 :2001 + A2 :2002	*Household appliances - immunity* EN 55014-2:1997 + A1:2001 (doc=exp) CISPR 14-2:1997 + A1 :2001
Electrical lighting – emission *EN 55015 :2000 + A1 :01 (doc=exp) + A2 :02 (doc=1.10.05)* *CISPR 15 :2000 + A1 :2000 + A2 :2002*	*ITE - emission* EN 55022:1998 + A1: 00 (doc=1.8.05) + A2:02 (doc=1.12.05) CISPR 22:1997 + A1:2000 + A2:2002 *EN 55022:1994 + A1:95 + A2:97 (doc=exp)* *CISPR 22:1993 + A1:1995 + A2:1996*	*ITE – immunity* *EN 55024:1998 + A1 :01 (doc=exp) + A2 :03 (doc=1.12.05)* *CISPR 24:1997 + A1 :2001 + A2 :2002*
Harmonics EN 61000-3-2 :2000 (doc=exp) IEC 61000-3-2 :2000 (mod) + A1 :2001	*Flicker* EN 61000-3-3 :1995 + A1 :01 (doc=exp) IEC 61000-3-3 :1994 + A1 :2001 EN 61000-3-11 :00 (doc=exp) IEC 61000-3-11 :00	*Generic immunity - light* EN 61000-6-1:2001 (doc=exp) IEC 61000-6-1:1997 (mod)
Generic immunity – Industrial EN 61000-6-2:2001 (doc=exp) IEC 61000-6-2:1999 (mod)	*Generic emission – light* EN 61000-6-3 :2001 (doc=exp) IEC 61000-6-3 :1996 (mod)	*Generic emission - industry* EN 61000-6-4 :2001 (doc=exp) IEC 61000-6-4:1997 (mod)
Electrical lighting – immunity *EN 61547 :1995 + A1 :00 (doc=exp)* IEC 61547 :1995 + A1 :2000		

Oslo, 19 January 2005 Jon Fredrik Mo, Nemko ELA Co-ordinator

3(3) NLA 3 ED3

Nemko

Nemko Laboratory Authorisation

Aut. No.: ELA 181B

SCOPE OF AUTHORIZATION

BASIC TESTS AND ASSOCIATED STANDARDS

Capability to perform a basic test implies also that any product (family) standard calling up this basic test is also within the scope if mentioned below or not.

Disturbance emissions		
Electromagnetic radiation disturbance, 9 kHz to 30 MHz, re.: EN 55011 (CISPR 11), EN 60945 (IEC 60945)	**Electromagnetic radiation disturbance, 30 to 1000 MHz, re.:** EN 55011 (CISPR 11), EN 55013 (CISPR 13), EN 55022 (CISPR 22), ANSI C63.4	**Electromagnetic radiation disturbance, above 1 GHz, re.:** EN 55011 (CISPR 11), EN 55022 (CISPR 22)
Electromagnetic radiation disturbance, 9 kHz to 30 MHz, "Van Veen loop", re: EN 55015 (CISPR 15)	**Mains terminal disturbance voltage, re** EN 55011 (CISPR 11), EN 55013 (CISPR 13), EN 55014-1 (CISPR 14-1), EN 55015 (CISPR 15), EN 55022 (CISPR 22), EN 60945 (IEC 60945), ANSI C63.4	**Conducted common-mode disturbance power, 30-1000 MHz, re.:** EN 55013 (CISPR 13) EN 55014-1 (CISPR 14-1)
Conducted terminal disturbance, HF-Z probe, re: EN 55011 (CISPR 11) EN 55014-1 (CISPR 14-1)	**Conducted common-mode disturbance at telecom/network ports, re.:** EN 55022 (CISPR 22)	**Conducted discontinuous disturbance on power port, re.:** EN 55014-1 (CISPR 14-1), section 4.2
Harmonic current emissions, re.: EN 61000-3-2 (IEC 61000-3-2)	**Voltage fluctuations and flicker in low-voltage supply systems, re** EN 61000-3-3 (IEC 61000-3-3), EN 61000-3-11 (IEC 61000-3-11)	**Conducted antenna terminal disturbance, re:** EN 55013 (CISPR 13)
Luminaire insertion loss, re: EN 55015 (CISPR 15)		
Immunity		
Electrostatic discharge immunity test, Re.: EN 61000-4-2 (IEC 61000-4-2)	**Radiated, radio-frequency, electromagnetic field immunity test, re.:** EN 61000-4-3 (IEC 61000-4-3) ENV 50140:1993, ENV 50204:1995	**Electrical fast transient/burst immunity test, re.:** EN 61000-4-4 (IEC 61000-4-4)
Surge immunity test, re.: EN 61000-4-5 (IEC 61000-4-5) ENV 50142:1994	**Immunity to conducted disturbances, induced by radio-frequency fields, re.:** EN 61000-4-6 (IEC 61000-4-6) ENV 50141:1993	**Power frequency magnetic field immunity test, re.:** EN 61000-4-8 (IEC 61000-4-8)
Immunity to voltage dips, short interruptions and voltage variation, re.: EN 61000-4-11 (IEC 61000-4-11)	**Oscillatory wave, re.:** EN 61000-4-12 (IEC 61000-4-12)	

Oslo, 19 January 2005 Jon Fredrik Mo, Nemko ELA Co-ordinator

3(3) NLA 3 ED3

Nemko

Nemko Laboratory Authorisation

Aut. No.: ELA 181B

SCOPE OF AUTHORIZATION

BASIC TESTS AND ASSOCIATED STANDARDS

Capability to perform a basic test implies also that any product (family) standard calling up this basic test is also within the scope if mentioned below or not.

Disturbance emissions		
Electromagnetic radiation disturbance, 9 kHz to 30 MHz, re.: EN 55011 (CISPR 11), EN 60945 (IEC 60945)	***Electromagnetic radiation disturbance, 30 to 1000 MHz, re.:*** EN 55011 (CISPR 11), EN 55013 (CISPR 13), EN 55022 (CISPR 22), ANSI C63.4	***Electromagnetic radiation disturbance, above 1 GHz, re.:*** EN 55011 (CISPR 11), EN 55022 (CISPR 22)
Electromagnetic radiation disturbance, 9 kHz to 30 MHz, "Van Veen loop", re: EN 55015 (CISPR 15)	***Mains terminal disturbance voltage, re:*** EN 55011 (CISPR 11), EN 55013 (CISPR 13), EN 55014-1 (CISPR 14-1), EN 55015 (CISPR 15), EN 55022 (CISPR 22), EN 60945 (IEC 60945), ANSI C63.4	***Conducted common-mode disturbance power, 30-1000 MHz, re.:*** EN 55013 (CISPR 13) EN 55014-1 (CISPR 14-1)
Conducted terminal disturbance, Hi-Z probe, re: EN 55011 (CISPR 11) EN 55014-1 (CISPR 14-1)	***Conducted common-mode disturbance at telecom/network ports, re.:*** EN 55022 (CISPR 22)	***Conducted discontinuous disturbance on power port, re.:*** EN 55014-1 (CISPR 14-1), section 4.2
Harmonic current emissions, re.: EN 61000-3-2 (IEC 61000-3-2)	***Voltage fluctuations and flicker in low-voltage supply systems, re:*** EN 61000-3-3 (IEC 61000-3-3), EN 61000-3-11 (IEC 61000-3-11)	***Conducted antenna terminal disturbance, re:*** EN 55013 (CISPR 13)
Luminaire insertion loss, re: EN 55015 (CISPR 15)		
Immunity		
Electrostatic discharge immunity test, Re.: EN 61000-4-2 (IEC 61000-4-2)	***Radiated, radio-frequency, electromagnetic field immunity test, re.:*** EN 61000-4-3 (IEC 61000-4-3) ENV 50140:1993, ENV 50204:1995	***Electrical fast transient/burst immunity test, re.:*** EN 61000-4-4 (IEC 61000-4-4)
Surge immunity test, re.: EN 61000-4-5 (IEC 61000-4-5) ENV 50142:1994	***Immunity to conducted disturbances, induced by radio-frequency fields, re.:*** EN 61000-4-6 (IEC 61000-4-6) ENV 50141:1993	***Power frequency magnetic field immunity test, re.:*** EN 61000-4-8 (IEC 61000-4-8)
Immunity to voltage dips, short interruptions and voltage variation, re.: EN 61000-4-11 (IEC 61000-4-11)	***Oscillatory wave, re.:*** EN 61000-4-12 (IEC 61000-4-12)	

Oslo, 19 January 2005 Jon Fredrik Mo, Nemko ELA Co-ordinator

Nemko

Nemko Laboratory Authorisation

Aut. No.: ELA 181B

PRODUCT-FAMILY STANDARDS

Unless specifically noted, only the sections of the standards below which are covered by the capability listing above are assumed covered by this authorisation. When the capability is expanded, more parts of the product standards will be covered.

UPS – Uninterruptible power supplies EN 50091-2:1995 (doc=exp)	*Alarm systems – immunity* EN 50130-4:1995 + A1:98 (doc=exp) + A2 (1.9.07)	*ISM equipment, emission* EN 55011:1998 + A1:99 (doc=exp) + A2:2002 (doc=1.10.05) CISPR 11:97 + A1:99 + A2:02
Broadcast receivers – emission EN 55013:2001 (doc=exp) + A1:03 (doc=1.4.06) CISPR 13:2001 (mod) +A1:03	*Household appliances – emission* EN 55014-1:2000 + A1:01 (doc=exp) + A2:02 (doc=1.10.05) CISPR 14-1:2000 + A1:2001 + A2:2002	*Household appliances - immunity* EN 55014-2:1997 + A1:2001 (doc=exp) CISPR 14-2:1997 + A1:2001
Electrical lighting – emission EN 55015:2000 + A1:01 (doc=exp) + A2:02 (doc=1.10.05) CISPR 15:2000 + A1:2000 + A2:2002	*ITE – emission* EN 55022:1998 + A1:00 (doc=1.8.05) + A2:02 (doc=1.12.05) CISPR 22:1997 + A1:2000 + A2:2002 EN 55022:1994 + A1:95 + A2:97 (doc=exp) CISPR 22:1993 + A1:1995 + A2:1996	*ITE – immunity* EN 55024:1998 + A1:01 (doc=exp) + A2:03 (doc=1.12.05) CISPR 24:1997 + A1:2001 + A2:2002
Harmonics EN 61000-3-2:2000 (doc=exp) IEC 61000-3-2:2000 (mod) + A1:2001	*Flicker* EN 61000-3-3:1995 + A1:01 (doc=exp) IEC 61000-3-3:1994 + A1:2001 EN 61000-3-11:00 (doc=exp) IEC 61000-3-11:00	*Generic immunity - light* EN 61000-6-1:2001 (doc=exp) IEC 61000-6-1:1997 (mod)
Generic immunity – Industrial EN 61000-6-2:2001 (doc=exp) IEC 61000-6-2:1999 (mod)	*Generic emission – light* EN 61000-6-3:2001 (doc=exp) IEC 61000-6-3:1996 (mod)	*Generic emission - industry* EN 61000-6-4:2001 (doc=exp) IEC 61000-6-4:1997 (mod)
Electrical lighting – immunity EN 61547:1995 + A1:00 (doc=exp) IEC 61547:1995 + A1:2000		

Oslo, 19 January 2005 Jon Fredrik Mo, Nemko ELA Co-ordinator

FEDERAL COMMUNICATIONS COMMISSION
Laboratory Division
7435 Oakland Mills Road
Columbia, MD 21046

October 28, 2002

Registration Number: 96399

Interocean EMC Technology Corp.
No. 5-2, Lin 1, Tin-Fu Tsun
Lin-Kou Hsiang, Taipei County 244,
Taiwan
Attention: Mike Huang

Re: Measurement facility located at Lin-Kou
OATS 1 & 2 (3 & 10 meter sites)
Date of Renewal: October 28, 2002

Gentlemen:

Your request for renewal of the registration of the subject measurement facility has been received. The information submitted has been placed in your file and the registration has been renewed. The name of your organization will remain on the list of facilities whose measurement data will be accepted in conjunction with applications for Certification under Parts 15 or 18 of the Commission's Rules. Please note that the file must be updated for any changes made to the facility and the registration must be renewed at least every three years.

Measurement facilities that have indicated that they are available to the public to perform measurement services on a fee basis may be found on the FCC website www.fcc.gov under E-Filing, OET Equipment Authorization Electronic Filing, Test Firms.

Sincerely,
Thomas W Phillips
Electronics Engineer

FEDERAL COMMUNICATIONS COMMISSION
Laboratory Division
7435 Oakland Mills Road
Columbia, MD 21046

December 09, 2002

Registration Number: 518958

Interocean EMC Technology Corp.
No. 5-2 Lin 1 Tin-Fu Tsun
Lin-Kou Hsiang
Taipei County, 244
Taiwan
Attention: Mike Huang

Re: Measurement facility located at Lin Kou
OATS 3 & 4 (3 & 10 meters)
Date of Listing: December 09, 2002

Gentlemen:

Your request for registration of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC rules. The information has, therefore, been placed on file and the name of your organization added to the list of facilities whose measurement data will be accepted in conjunction with applications for Certification under Parts 15 or 18 of the Commission's Rules. Please note that the file must be updated for any changes made to the facility and the registration must be renewed at least every three years.

Measurement facilities that have indicated that they are available to the public to perform measurement services on a fee basis may be found on the FCC website www.fcc.gov under E-Filing, OET Equipment Authorization Electronic Filing, Test Firms.

Sincerely,
Thomas W Phillips
Electronics Engineer

TÜV Rheinland Taiwan Ltd.

TÜV

Certificate

of

Appointment

Interocean EMC Technology Corp.
No. 5-2, Lin 1, Tin-Fu Tsun, Lin-Kou Hsiang,
Taipei County 224, Taiwan, R.O.C.

has been authorized to carry out EMC, RF, E/e Mark tests by order and under supervision of TÜV Rheinland. It has successfully demonstrated capability to conduct measurement and to process test data according to:

European and International EMC Standards as listed in the Scope of Authorization on the attachment to this certificate

An assessment of the facility was conducted by TÜV Rheinland auditors according to the laboratory qualification requirements of TR with reference to

ISO 17 025:1999

Certificate No. : 10006453-2004 **Valid until : February 21, 2005**

TÜV Rheinland Taiwan Ltd.
Taipei, January 12, 2004

Dipl.-Ing. Andreas Klinker
Certification Body

Dipl.-Ing. Bodo Kretzschmar
Product Safety and Quality

TÜV

Attachment to

Certificate

of Appointment
SCOPE OF AUTHORIZATION
for
Interocean EMC Technology Corp.
No. 5-2, Lin 1, Tin-Fu Tsun, Lin-Kou Hsiang,
Taipei County 224, Taiwan, R.O.C.

European Standards

EN 300 220-1	EN 50082-1, EN 61000-6-1
EN 300 220-2	EN 61000-6-2
EN 300 220-3	EN 50130-4
EN 300 328	EN 55011
EN 300 328-1	EN 55013
EN 300 328-2	EN 50091-2
EN 300 440-1	EN 55014-1
EN 300 440-2	EN 55014-2
EN 301 489-1	EN 55015
EN 301 489-3	EN 55022
EN 301 489-17	EN 55024
EN 301 893	EN 61000-3-2
EN 50081-1, EN 61000-6-3	EN 61000-3-3
EN 50081-2, EN 61000-6-4	EN 61326
	EN 61547

Basic and International Standards

CISPR 11	EN/IEC 61000-4-3
CISPR 13	EN/IEC 61000-4-4
CISPR 14-1	EN/IEC 61000-4-5
CISPR 14-2	EN/IEC 61000-4-6
CISPR 15	EN/IEC 61000-4-8
CISPR 22	EN/IEC 61000-4-11
CISPR 24	EN/IEC 61000-4-2

Other Standards

72/245/EEC as last amended by 95/54/EC	ECE Regulation R10 Rev.02
97/24/EC Chapter 8	

Certificate No. : 10006453-2004

Taipei, January 12, 2005

Dipl.-Ing. Bodo Kretzschmar
Product Safety and Quality

Taiwan Accreditation Foundation
Chinese National Laboratory Accreditation
Certificate of Accreditation

Accreditation Criteria: ISO 17025
Accreditation Number: 1113
Organization/Laboratory: Interocean EMC Technology Tin-Fu Laboratory, Interocean EMC Technology Corp.
Originally Accredited: August 1, 2003
Effective Period: August 1, 2003 To July 31, 2006
Accredited Scope: Electrical Testing Field, 14 items, details shown in the following pages.
Specific Accreditation Program: Recognition and Approval of Designated Laboratory for Commodities Inspection
Recognition and Approval of Designated Laboratory for Telecom

President, Taiwan Accreditation Foundation
Date:November 1, 2004

(This document is invalid unless accompanied by all 5 pages)

Taiwan Accreditation Foundation
Chinese National Laboratory Accreditation

Organization : Interocean EMC Technology Corp.
Laboratory : Interocean EMC Technology Tin-Fu Laboratory
Laboratory address : No. 5-2 Lin 1 Tin Fu Tsuen Lin-Kou Hsiang,Taipei County,Taiwan,R.O.C
Registration No. : 1113
Laboratory Head : Huang Mike
Testing Field : Electrical Testing
Date of Registration: 2003.08.01

Date of Revised : 2004.11.01

Registration items	Test items	Test Methods	Ranges	Remarks
E00(5) Low power R.F. equipment	Low Power Wireless Electrical and Electronic Equipment	The QIC Ministry of Transportation and Communication Low Power RF Equipment Technology specification LP 0002(2002-08) FCC Method 47 CFR 15 Subpart C, E	Frequency range 9 kHz to 30 GHz	(*Registration item of Designated Laboratory for Telecom)
E00(6) Harmonic current emissions	Electrical and Electronic Equipment	IEC 61000-3-2 EN 61000-3-2	Input Current ≤ 16 A (per phase) Rated Power ≤600 W Frequency 50/60 Hz (single phase)	
E00(7) Voltage fluctuations and flicker	Electrical and Electronic Equipment	IEC 61000-3-3 EN 61000-3-3	Input Current ≤ 16 A (per phase) Frequency 50/60 Hz (single phase) Rated Power≤600 W	
E00(13) Audio and television broadcast	Sound and TV broadcast receivers and associated equipment	CNS 13439 CISPR 13 EN 55013	Conducted Interference:150 kHz to 30 MHz Radiated Interference:30 MHz to 1 GHz VIAC 100 V to 240 V, 50/60 Hz (single phase)	(*Registration item of Designated Laboratory for Telecom)

Taiwan Accreditation Foundation
Chinese National Laboratory Accreditation

Registration items	Test items	Test Methods	Ranges	Remarks
tests				
EJ0208 Power frequency magnetic field immunity test	Electrical and Electronic Equipment	IEC 61000-4-8 EN 61000-4-8	Test Power:V/AC 100 V to 230 V, 50/60 Hz (single phase) Continue Magnetic:1 to 100 A/m	
EJ0211 Voltage dips,short interruptions and voltage variations immunity tests (Null Below)	Electrical and Electronic Equipment	IEC 61000-4-11 EN 61000-4-11	Test Power:V/AC 100 V to 230 V, 50/60 Hz (single phase) Short Interruptions Voltage :100 % Dip Voltage:0 %, 40 %, 70 %, 100 %	

CNLA-ZL03117E Page 5 of 5

Taiwan Accreditation Foundation
Chinese National Laboratory Accreditation

Registration items	Test items	Test Methods	Ranges	Remarks
receivers and associated equipment				Commodities Inspection)
EJ0114 Electrical appliances and systems	Household appliances electric tools and Similar apparatos	CNS 13783-1 CISPR 14-1 EN 55014-1	Conducted Interference:150 kHz to 30 MHz Interference Power test:30 MHz to 300 MHz Click rate Tdst:150 kHz to 30 MHz V/AC 100 V to 230 V, 50/60 Hz (single phase)	(*Registration item of Designated Laboratory for Commodities Inspection)
EJ0115 Fluorescent lamps and luminosities	Electrical Lighting and Similar equipment	CISPR 15 EN 55015 CNS 14115	Test Power:V/AC 100 V to 230 V, 50/60 Hz (single phase) Conducted Interference:9 kHz to 30 MHz Radiated Interference:9 kHz to 30 MHz Insertion Loss:150 kHz to 1605 kHz	(*Registration item of Designated Laboratory for Commodities Inspection)
EJ0122 Systems and apparatus of the telecommunication and information technology	Information Technology Equipment	CNS 13438 CISPR 22 EN 55022 FCC Method-47 CFR Part 15 Subpart B	Conducted Interference:150 kHz to 30 MHz Radiated Interference:30 MHz to 30 GHz V/AC 100 V to 230 V, 50/60 Hz (single phase)	Test area: 1.No.12 Ruei-Shu Valley, Ruei-Ping Tsuen,Lin-Kou Shiang,Taipei County,Taiwan,R.O.C 2.No. 5-2 Lin 1 Tin Fu Tsuen,Lin-Kou Hsiang,Taipei

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財團法人全國認證基金會
中華民國實驗室認證體系
認 證 證 書

認 證 依 據： ISO 17025
認 證 編 號： 1113
機構/實驗室名稱： 宇海科技股份有限公司宇海科技頂福實驗室
原 始 發 證 日 期： 九十二年八月一日
認證有效期間： 九十二年八月一日起至九十五年七月三十一日止
認 證 範 圍： 電性測試領域共 14 項，詳如附件內容
特 定 認 證 計 畫： 商品檢驗指定實驗室認證服務計畫
電信總局指定實驗室認證服務計畫

財團法人全國認證基金會
董 事 長

中 華 民 國 九十三 年 十一 月 一 日
（本證書共 4 頁，分離使用無效）

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Taiwan Accreditation Foundation
Chinese National Laboratory Accreditation

Registration items	Test items	Test Methods	Ranges	Remarks
				County,Taiwan,R.O.C)*Registration item of Designated Laboratory for Commodities Inspection)
EJ0202 Electrostatic discharge tests	Electrical and Electronic Equipment	IEC 61000-4-2 EN 61000-4-2 CNS 14676-2	Contact Discharge:0 to 15 kV Air Discharge:0 to 15 kV	
EJ0203 Radiated susceptibility tests	Electrical and Electronic Equipment	IEC 61000-4-3 EN 61000-4-3 ENV 50204	Test Power: V/AC 100 V to 230 V, 50/60 Hz (single phase) Frequency Scope:1 kHz AM modulation Largest Field Strength:10 V/m Frequency Scope:895 to 905 MHz Pulse modulation	
EJ0204 Electrical fast transient/burst tests	Electrical and Electronic Equipment	IEC 61000-4-4 EN 61000-4-4 CNS 14676-4	Test Power:V/AC 100 V to 230 V, 50/60 Hz (single phase) Interference Voltage:500 V to 4.4 kV	
EJ0205 Surge/lightening tests	Electrical and Electronic Equipment	IEC 61000-4-5 EN 61000-4-5 CNS 14676-5	Test Power:V/AC 100 V to 230 V, 50/60 Hz (single phase) Interference Voltage:500 to 6 kV	
EJ0206 Conducted susceptibility	Electrical and Electronic Equipment	IEC 61000-4-6 EN 61000-4-6	Test Power:V/AC 100 V to 230 V, 50/60 Hz (single phase) Frequency Scop:150 kHz to 230 MHz Voltage Level:0 to 10 Vrms	

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財團法人全國認證基金會
中華民國實驗室認證體系

認可項目	測試件	測試方法	範圍	備註
		CNS 14675-4		
EI0205 突波/雷擊測試	電機電子產品	IEC 61000-4-5 EN 61000-4-5 CNS 14676-5	測試件電源:V/AC 100 V to 230 V, 50/60 Hz(單相) 干擾電壓:500 to 6 kV	
EI0206 傳導耐受測試	電機電子產品	IEC 61000-4-6 EN 61000-4-6	測試件電源:V/AC 100 V to 230 V, 50/60 Hz (單相) 頻率範圍:150 kHz to 230 MHz 電壓位準:0 to 10 Vrms	
EI0208 電源頻率磁場耐受測試	電機電子產品	IEC 61000-4-8 EN 61000-4-8	測試件電源:V/AC 100 V to 230 V, 50/60 Hz (單相) 連續磁場:: to 100 A/m	
EI0211 電壓下降,瞬斷和變變耐受測試 (以下空白)	電機電子產品	IEC 61000-4-11 EN 61000-4-11	測試件電源:V/AC 100 V to 230 V, 50/50 Hz (測相) 電壓瞬斷:100 % 電壓下降:0 %, 40 %, 70 %, 100 %	

財團法人全國認證基金會
中華民國實驗室認證體系

機構名稱 ：宇海科技股份有限公司
實驗室名稱：宇海科技頂福實驗室
實驗室地址：台北縣林口鄉頂福村 1 鄰 5-2 號
認可編號 ：1113
實驗室負責人：黃瑞雄
測試領域 ：電性測試
發證日期 ：2003.08.01

變更日期 ：2004.11.01

認可項目	測試件	測試方法	範圍	備註
EE0280 低功率射頻電機	低功率無線電子電機產品	交通部電信總局低功率射頻電機技術規範 LP 0002 (91-08) FCC Method-47 CFR 15 Subpart C, E	頻率範圍:9 kHz to 30 GHz	(*電信總局指定試驗檢測項目)
EI0102 諧波電流干擾	電機電子產品	IEC 61000-3-2 EN 61000-3-2	輸入電流≦16 A (每相) 額定功率≦600 W 頻率:50/60 Hz (單相)	
EI0103 電壓變動與閃爍干擾	電機電子產品	IEC 61000-3-3 EN 61000-3-3	輸入電流≦16 A(每相) 頻率:50/60 Hz(單相) 額定功率≦600 W	
EI0113 音響及電視廣播接收機與相關設備	廣播接收機相關產品	CNS 13439 CISPR 13 EN 55013	傳導干擾:150 kHz to 30 MHz 輻射干擾:30 MHz to 18 GHz V/AC 100 V to 230 V, 50/60 Hz (單相)	(*商品檢驗指定試驗檢測項目)

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

ISO/IEC 17025:1999
ISO 9002:1994

Certificate of Accreditation

DEPARTMENT OF COMMERCE · UNITED STATES OF AMERICA

INTEROCEAN EMC TECHNOLOGY CORP.
TAIPEI COUNTY 24443
TAIWAN

is recognized by the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria set forth in NIST Handbook 150:2001, all requirements of ISO/IEC 17025:1999, and relevant requirements of ISO 9002:1994. Accreditation is awarded for specific services, listed on the Scope of Accreditation, for:

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS

March 31, 2006
Effective through

For the National Institute of Standards and Technology
NVLAP Lab Code: 200458-0

NVLAP-01C (06-01)

財團法人全國認證基金會
中華民國實驗室認證體系

認可項目	測試件	測試方法	範圍	備註
EI0014 電器產品及系統	家電與電動工具類產品	CNS 13783-1 CISPR 14-1 EN 55014-1	傳導干擾:150 kHz to 30 MHz 干擾功率測試:30 MHz to 300 MHz 吸收率測試:150 kHz to 30 MHz V/AC 100 V to 230 V, 50/60 Hz (單相)	(*商品檢驗指定試驗檢測項目)
EI0015 螢光燈具及發光體	燈具及發光體產品	CISPR 15 EN 55015 CNS 14115	測試件電源:V/AC 100 V to 230 V, 50/60 Hz (單相) 傳導干擾:9 kHz to 30 MHz 磁場干擾:9 kHz to 30 MHz 插入損失:150 kHz to 1605 kHz	(*商品檢驗指定試驗檢測項目)
EI0122 電信及資訊技術系統及通器	資訊相關產品	CNS 13438 CISPR 22 EN 55022 FCC Method-47 CFR Part 15 Subpart B	傳導干擾:150 kHz to 30 MHz 輻射干擾:30 MHz to 30 GHz V/AC 100 V to 230 V, 50/60 Hz (單相)	測試場地: 1.台北縣林口鄉咖啡坑頂平村 2 鄰 12 號 2.台北縣林口鄉頂福村 1 鄰 5-2 號 (*商品檢驗指定試驗檢測項目)
EI0202 靜電放電測試	電機電子產品	IEC 61000-4-2 EN 61000-4-2 CNS 14676-2	空氣放電:0 to 15 kV 接觸放電:0 to 15 kV	
EI0203 輻射抗擾受測試	電機電子產品	IEC 61000-4-3 EN 61000-4-3 ENV 50204	測試件電源: V/AC 100 V to 230 V, 50/60 Hz (單相) 頻率範圍:1 kHz AM 調變 最大場強:10 V/m 頻率範圍:895 to 905 MHz Pulse 調變	
EI0204 電性快速突波測試	電機電子產品	IEC 61000-4-4 EN 61000-4-4	測試件電源:V/AC 100 V to 230 V, 50/60 Hz(單相) 干擾電壓: 500 V to 4.4 kV	

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INTEROCEAN EMC TECHNOLOGY CORP.

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NVLAP Code	*Designation / Description*
Emissions Test Methods:	
12/CIS11	IEC/CISPR 11 + A1 (1997), EN 55011 (1998), AS/NZS CISPR 11 (2002), and CNS 13803 (1997): Limits and Methods of Measurement of Electromagnetic Disturbance Characteristics of Industrial, Scientific, and Medical Radio-Frequency Equipment
12/CIS14	CISPR 14-1 (March 30, 2000): Limits and Methods of Measurement of Radio interference Characteristics of Household Electrical Appliances, Portable Tools and Similiar Electrical Apparatus - Part 1: Emissions
12/CIS14a	EN 55014-1 (1993), A1 (1997), A2 (1999):
12/CIS14b	AS/NZS 1044 (1995):
12/CIS14c	CNS 13783-1: Electromagnetic Compatibility Requirements for household appliances, electric tools and similar apparatus - Part 1: Emissions

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12/CIS22b	CNS 13438 (1997): Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment
12/CIS22e	IEC/CISPR 22 (2002) and EN 55022 (1998): Limits and Methods of Measurement of Radio Disturbance Characteristics of Information Technology Equipment
12/EM02a	IEC 61000-3-2, Edition 2.1 (2001-10), EN 61000-3-2 (2000), and AS/NZS 2279.1 (2000): Electromagnetic compatibility (EMC) Part 3-2: Limits - Limits for harmonic current emissions (equipment input current <= 16 A)
12/EM03	IEC 61000-3-3(1995); EN 61000-3-3(1995); AS/NZS 2279.3(1995): EMC - Part 3: Limits - Section 3. Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current up to 16A
12/F18	FCC OST/MP-5 (1986): FCC Methods of Measurement of Radio Noise Emissions for ISM Equipment (cited in FCC Method 47 CFR Part 18 - Industrial, Scientific, and Medical Equipment)
12/FCC15b	ANSI C63.4 (2003) with FCC Method 47 CFR Part 15, Subpart B: Unintentional Radiators
12/FCC15c	ANSI C63.4 (2003) with FCC Method 47 CFR Part 15, Subpart C: Intentional Radiators

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NVLAP Code	*Designation / Description*
12/FCC15e	ANSI C63.4 (2003) with FCC Method 47 CFR Part 15, Subpart E: Unlicensed National Information Infrastructure Service Devices
12/T51	AS/NZS CISPR 22 (2002) and AS/NZS 3548 (1997): Electromagnetic Interference - Limits and Methods of Measurement of Information Technology Equipment
12/VCCIa	VCCI: Agreement of Voluntary Control Council for Interference by Information Technology Equipment - Technical Requirements: V-3/02.04
Immunity Test Methods:	
12/I01	IEC 61000-4-2, Ed. 2.1 (2001), A1, A2; EN 61000-4-2: Electrostatic Discharge Immunity Test
12/I02	IEC 61000-4-3, Ed. 2.0 (2002-03); EN 61000-4-3 (2002): Radiated Radio-Frequency Electromagnetic Field Immunity Test
12/I03	IEC 61000-4-4(1995), A1(2000), A2(2001); EN 61000-4-4: Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical Fast Transient/Burst Immunity Test
12/I04	IEC 61000-4-5, Ed. 1.1 (2001-04); EN 61000-4-5: Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test

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NVLAP Code	*Designation / Description*
12/I05	IEC 61000-4-6, Ed. 2.0 (2003-05); EN 61000-4-6: Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields
12/I06	IEC 61000-4-8, Ed. 1.1 (2001); EN 61000-4-8: Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test
12/I07	IEC 61000-4-11, Ed. 1.1 (2001-03); EN 61000-4-11: Voltage Dips, Short Interruptions and Voltage Variations Immunity Tests
Radio Test Methods	
12/RSS210	RSS-210, Issue 5 (November 2001): Low Power Licence-Exempt Radiocommunication Devices
Safety Test Methods:	
12/60601a	IEC 60601-1-2, Ed1(1993);Ed2(2001-09); JIS T0601-1-2(2002.7): Medical electrical equipment - Part 1 and Part 1-2: General requirements for safety: Collateral standard: EMC - Requirements and tests

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