

FCC TEST REPORT

for

47 CFR, Part 2, Part 15 and CISPR PUB. 22 Class B

Equipment : Adapter

Model No. : GT-41052-1305, GT-41052-1506-XX,
GT-41052-1507-XX, GT-41052-1509-XX,
GT-41052-1512-XX, GT-41052-1515-XX,
GT-41052-1518-XX, GT-41052-1520-XX,
GT-41052-1524-XX

FCC ID : N/A

Filing Type : Verification

Applicant : **Glob Tek, Inc.**
186 Veterans Dr. Northvale, NJ 07647

- The test result refers exclusively to the test presented test model / sample.
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- **Certificate or Test Report must not be used by the applicant to claim the product in this test report endorsement by NVLAP or any agency of U.S. government.**

SPORTON International Inc.

6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

SPORTON International Inc.

TEL : 886-2-2696-2468

FAX : 886-2-2696-2255

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History of this test report

Original Report Issue Date: Feb. 18, 2004

☒ No additional attachment.☐ Additional attachment were issued as following record:

Attachment No.	Issue Date	Description

CERTIFICATE OF COMPLIANCE

for

47 CFR, Part 2, Part 15 and CISPR PUB. 22 Class B

Equipment : Adapter

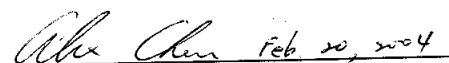
Model No. : GT-41052-1305, GT-41052-1506-XX,
GT-41052-1507-XX, GT-41052-1509-XX,
GT-41052-1512-XX, GT-41052-1515-XX,
GT-41052-1518-XX, GT-41052-1520-XX,
GT-41052-1524-XX

FCC ID : N/A

Applicant : **Glob Tek, Inc.**
186 Veterans Dr. Northvale, NJ 07647an
Hsiang, Taoyuan Hsien, Taiwan, R.O.C.

I HEREBY CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4 - 2001** and the energy emitted by this equipment was **passed CISPR PUB. 22 and FCC Part 15** in both radiated and conducted emission class B limits. Testing was carried out on Jan. 12, 2004 at **SPORTON International Inc. LAB.**



Alex Chen
Manager

SPORTON International Inc.

6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

SPORTON International Inc.

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FCC ID : N/A
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Issued Date : Feb. 18, 2004

1. General Description of Equipment under Test

1.1. Applicant

Glob Tek, Inc.
186 Veterans Dr. Northvale, NJ 07647

1.2. Manufacturer

Same as 1.1.

1.3. Basic Description of Equipment under Test

Equipment : Adapter
Model No. : GT-41052-1305, GT-41052-1506-XX, GT-41052-1507-XX, GT-41052-1509-XX,
GT-41052-1512-XX, GT-41052-1515-XX, GT-41052-1518-XX,
GT-41052-1520-XX, GT-41052-1524-XX
Trade Name : Glob Tek, Inc.
Power Supply Type : Switching
AC Power Input : Wall-mount, 2 pin
DC Power Cable : Non-Shielded, 1.8m, 2pin

1.4. Feature of Equipment under Test

■ I/P : 100-240VAC, 50/60Hz

Output Voltage	Normal Rated Load	Output Power	Transformer Type
5V	2.6A	13V	XF00167
6V	2.5A	15W	XF00167
7V	2.14A	14.98W	XF00167
9V	1.7A	15.3W	XF00168
12V	1.25A	15W	XF00168
15V	1A	15W	XF00168
18V	0.84A	15.12W	XF00169
20V	0.75A	15W	XF00169
24V	0.63A	15.12W	XF00169

2. Test Configuration of Equipment under Test

2.1. Test Manner

- a. The EUT has been associated with dummy load pursuant to ANSI C63.4-2001 and configuration operated in a manner which tended to maximize its emission characteristics in a typical application.
- b. The complete test system included SPORTON Dummy Load and EUT for EMI test.
- c. Frequency range investigated: conduction 150 KHz to 30 MHz, radiation 30 MHz to 1000MHz.

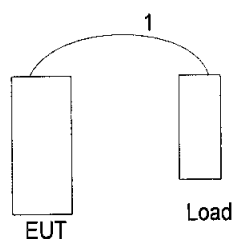
2.2. Description of Test System

Support Unit 1. – Load (SPORTON)

Spec.

: FULL LOAD

2.3. Connection Diagram of Test System



1. The power cable is connected from the EUT to support unit 1.

3. Test Software

No test software was used during testing.

4. General Information of Test

4.1. Test Facility

Test Site Location : No. 52, Hwa Ya 1St Road, Hwa Ya Technology Park,
Kwei-Shan Hsiang, TaoYuan Hsien, Taiwan, R.O.C.
TEL : 886-3-3273456
FAX : 886-3-3180055
Test Site No. : CO01-HY, 10CH01-HY

4.2. Test Voltage

110V/ 60Hz

4.3. Standard for Methods of Measurement

ANSI C63.4-2001

4.4. Test in Compliance with

CISPR PUB. 22 and FCC Part 15

4.5. Frequency Range Investigated

- a. Conduction: from 150 kHz to 30 MHz
- b. Radiation : from 30 MHz to 1000 MHz

4.6. Test Distance

- a. The test distance of radiated emission from antenna to EUT is 10 M.

5. Test of Conducted Powerline

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz and return leads of the EUT according to the methods defined in ANSI C63.4-2001 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 5.3. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

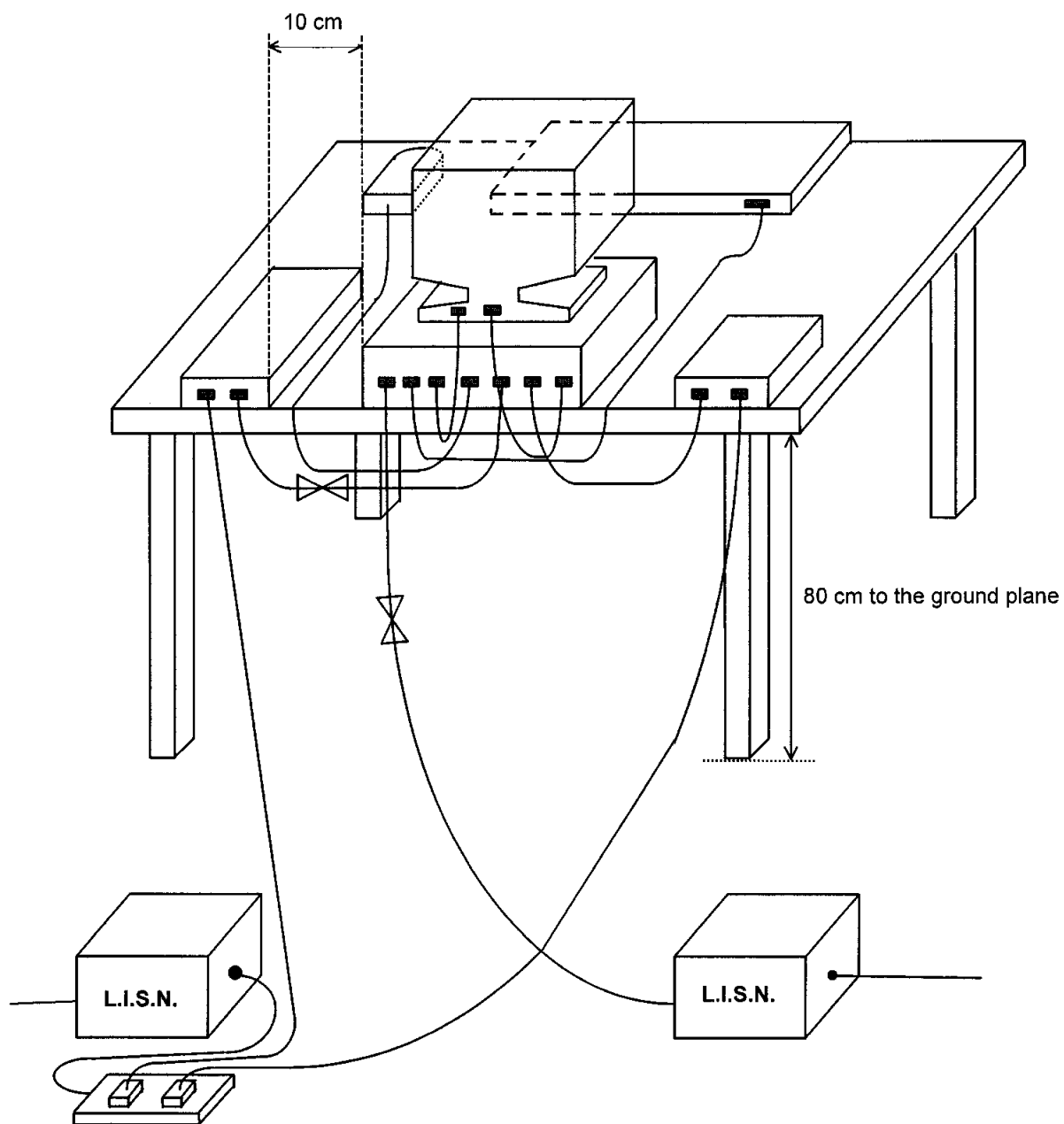
5.1. Major Measuring Instruments

- Test Receiver (R&S ESCS 30)
 - Attenuation 10 dB
 - Start Frequency 0.15 MHz
 - Stop Frequency 30 MHz
 - IF Bandwidth 9 KHz

5.2. Test Procedures

- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- c. All the support units are connect to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 150 kHz to 30 MHz was searched.
- h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

5.3. Typical Test Setup Layout of Conducted Powerline

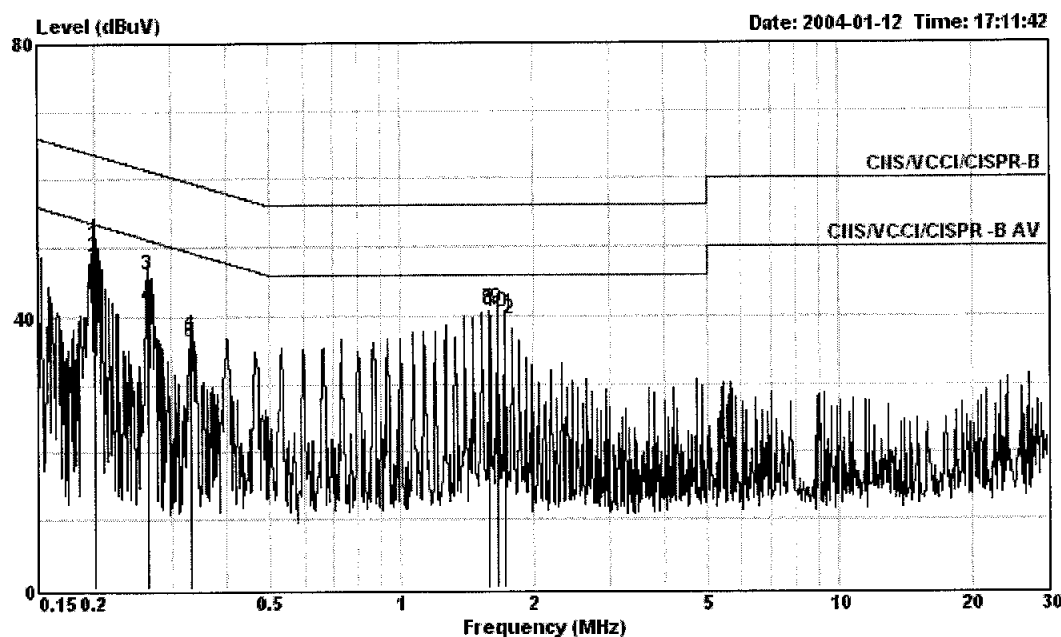


5.4. Test Result of AC Powerline Conducted Emission

5.4.1. Test Mode: Mode 1

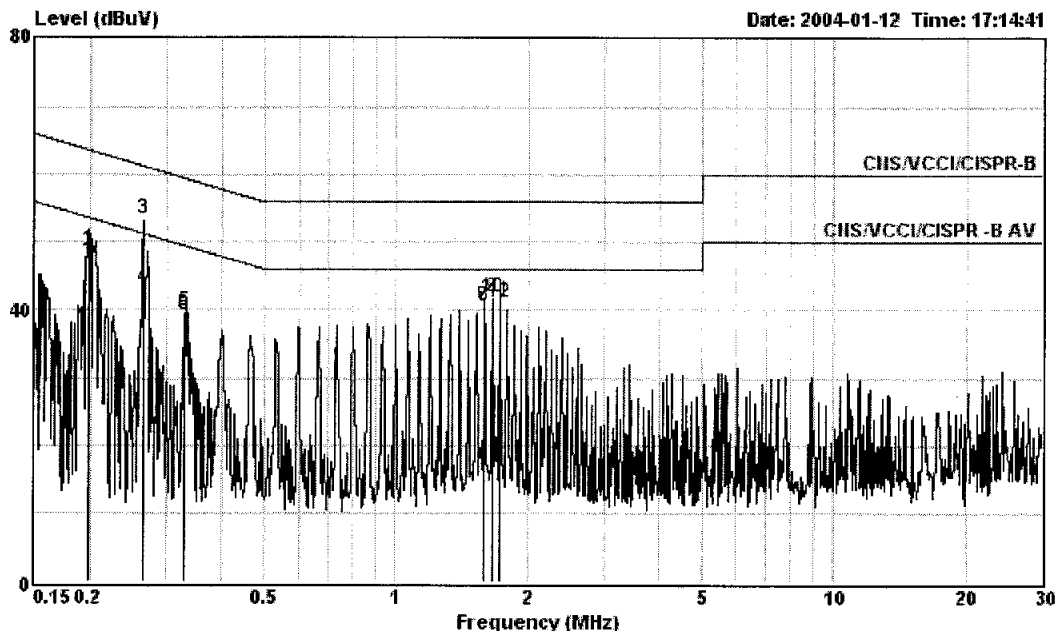
- Frequency Range of Test : from 0.15 MHz to 30 MHz
- Temperature: 26.3°C
- Relative Humidity: 52 %
- All emissions not reported here are more than 10 dB below the prescribed limit.

■ The test was passed at the minimum margin that marked by a frame in the following table



Site : site
 Condition : CNS/VCCI/CISPR-B 2003 2001/008 LINE
 EUT : ADAPTER
 Power : 110V 60Hz
 Memo :
 : 5V 2.6A

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.201	50.63	-12.94	63.57	50.51	0.10	0.02	QP
2	0.201	48.71	-4.86	53.57	48.59	0.10	0.02	Average
3	0.265	46.24	-15.02	61.26	46.12	0.10	0.02	QP
4	0.265	41.49	-9.77	51.26	41.37	0.10	0.02	Average
5	0.332	37.14	-22.26	59.40	37.02	0.10	0.02	QP
6	0.332	36.46	-12.94	49.40	36.34	0.10	0.02	Average
7	1.594	40.94	-15.06	56.00	40.79	0.10	0.05	QP
8	1.594	40.88	-5.12	46.00	40.73	0.10	0.05	Average
9	1.661	41.02	-4.98	46.00	40.87	0.10	0.05	Average
10	1.661	40.54	-15.46	56.00	40.39	0.10	0.05	QP
11	1.729	40.34	-5.66	46.00	40.18	0.10	0.06	Average
12	1.729	39.58	-16.42	56.00	39.42	0.10	0.06	QP



Site : site
 Condition : CNS/VCCI/CISPR-B 2003 2001/008 NEUTRAL
 EUT : ADAPTER
 Power : 110V 60Hz
 Memo : 5V 2.6A

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.199	48.76	-14.89	63.65	48.64	0.10	0.02	QP
2	0.199	48.49	-5.16	53.65	48.37	0.10	0.02	Average
3	0.264	53.62	-7.68	61.30	53.50	0.10	0.02	QP
4	0.264	42.99	-8.31	51.30	42.87	0.10	0.02	Average
5	0.329	39.67	-19.80	59.47	39.55	0.10	0.02	QP
6	0.329	39.24	-10.23	49.47	39.12	0.10	0.02	Average
7	1.594	40.56	-15.44	56.00	40.41	0.10	0.05	QP
8	1.594	40.46	-5.54	46.00	40.31	0.10	0.05	Average
9	1.661	41.91	-14.09	56.00	41.76	0.10	0.05	QP
10	1.661	41.70	-4.30	46.00	41.55	0.10	0.05	Average
11	1.727	41.22	-4.78	46.00	41.06	0.10	0.06	Average
12	1.727	41.02	-14.98	56.00	40.86	0.10	0.06	QP

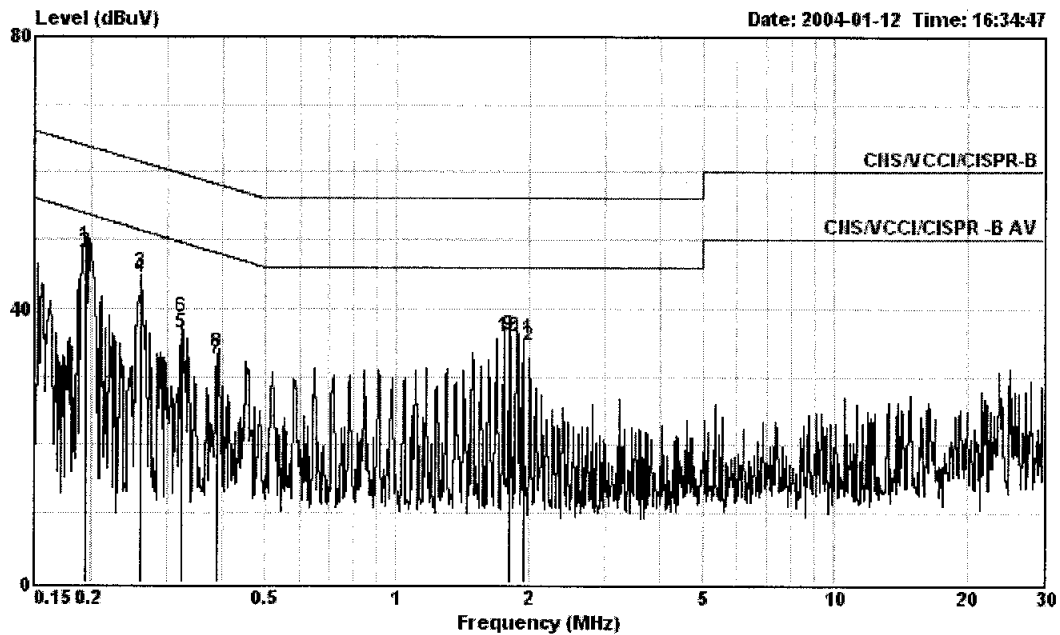
Test Engineer : Jason

Jason Chang

5.4.2. Test Mode: Mode 2

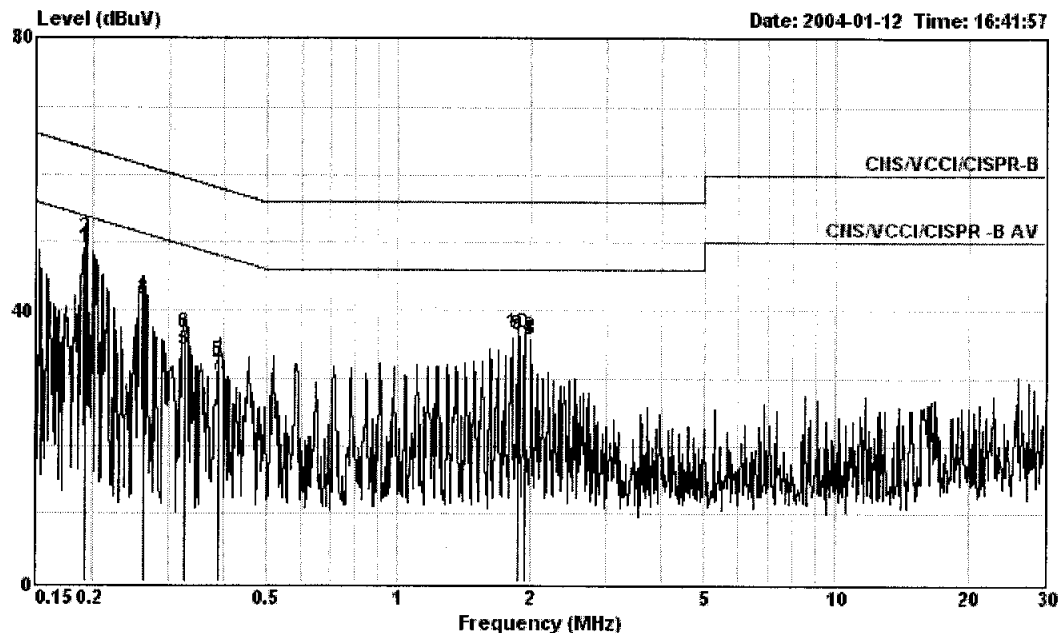
- Frequency Range of Test : from 0.15 MHz to 30 MHz
- Temperature: 26.3°C
- Relative Humidity: 52 %
- All emissions not reported here are more than 10 dB below the prescribed limit.

■ The test was passed at the minimum margin that marked by a frame in the following table



Site : site
 Condition : CHS/VCCI/CISPR-B 2003 2001/008 LINE
 EUT : ADAPTER
 Power : 110V 60Hz
 Memo :

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.195	49.11	-14.71	63.82	48.99	0.10	0.02	QP
2	0.195	48.10	-5.72	53.82	47.98	0.10	0.02	Average
3	0.259	45.29	-16.17	61.46	45.17	0.10	0.02	QP
4	0.259	44.31	-7.15	51.46	44.19	0.10	0.02	Average
5	0.323	36.35	-13.27	49.62	36.23	0.10	0.02	Average
6	0.323	38.76	-20.86	59.62	38.64	0.10	0.02	QP
7	0.390	32.45	-15.62	48.07	32.33	0.10	0.02	Average
8	0.390	33.48	-24.59	58.07	33.36	0.10	0.02	QP
9	1.815	36.02	-19.98	56.00	35.86	0.10	0.06	QP
10	1.815	35.85	-10.15	46.00	35.69	0.10	0.06	Average
11	1.946	35.65	-10.35	46.00	35.49	0.10	0.06	Average
12	1.946	34.61	-21.39	56.00	34.45	0.10	0.06	QP



Site : site
 Condition : CHS/VCCI/CISPR-B 2003 2001/008 NEUTRAL
 EUT : ADAPTER
 Power : 110V 60Hz
 Memo :

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.193	49.12	-4.79	53.91	49.00	0.10	0.02	Average
2	0.193	50.77	-13.14	63.91	50.65	0.10	0.02	QP
3	0.262	41.45	-19.93	61.38	41.33	0.10	0.02	QP
4	0.262	41.43	-9.95	51.38	41.31	0.10	0.02	Average
5	0.325	34.10	-15.48	49.58	33.98	0.10	0.02	Average
6	0.325	36.72	-22.86	59.58	36.60	0.10	0.02	QP
7	0.389	30.38	-17.70	48.08	30.26	0.10	0.02	Average
8	0.389	32.40	-25.68	58.08	32.28	0.10	0.02	QP
9	1.880	36.37	-9.63	46.00	36.21	0.10	0.06	Average
10	1.880	36.70	-19.30	56.00	36.54	0.10	0.06	QP
11	1.945	35.71	-10.29	46.00	35.55	0.10	0.06	Average
12	1.945	36.12	-19.88	56.00	35.96	0.10	0.06	QP
13	1.946	35.71	-10.29	46.00	35.55	0.10	0.06	Average
14	1.946	35.62	-20.38	56.00	35.46	0.10	0.06	QP

Test Engineer :

Jason

Jason Chang

FCC TEST REPORT

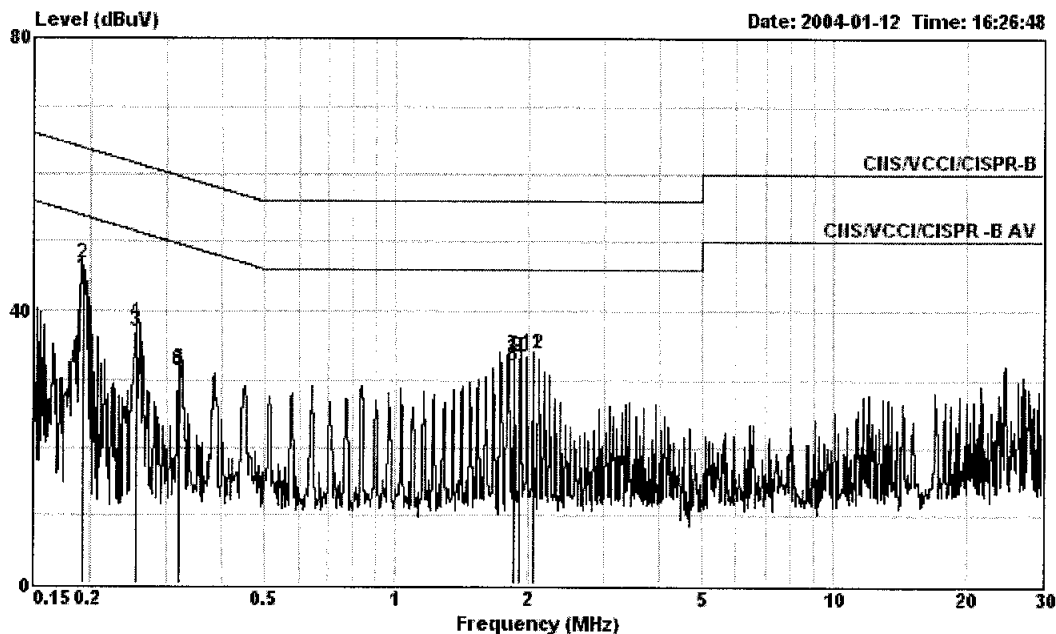
Report No. : F3D1806-02

1.4.3.

Test Mode: Mode 3

- Frequency Range of Test : from 0.15 MHz to 30 MHz
- Temperature: 26.3°C
- Relative Humidity: 52 %
- All emissions not reported here are more than 10 dB below the prescribed limit.

■ The test was passed at the minimum margin that marked by a frame in the following table



Site : site
Condition : CNS/VCCI/CISPR-B 2003 2001/008 LINE
EUT : ADAPTER
Power : 110V 60Hz
Memo : 18V 0.84A

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.194	44.70	-19.18	63.88	44.58	0.10	0.02	QP
2	0.194	46.82	-7.06	53.88	46.70	0.10	0.02	Average
3	0.256	36.93	-24.63	61.56	36.81	0.10	0.02	QP
4	0.256	38.24	-13.32	51.56	38.12	0.10	0.02	Average
5	0.320	31.48	-28.23	59.71	31.36	0.10	0.02	QP
6	0.320	31.18	-18.53	49.71	31.06	0.10	0.02	Average
7	1.860	33.50	-22.50	56.00	33.34	0.10	0.06	QP
8	1.860	31.96	-14.04	46.00	31.80	0.10	0.06	Average
9	1.922	33.24	-22.76	56.00	33.08	0.10	0.06	QP
10	1.922	33.24	-12.76	46.00	33.08	0.10	0.06	Average
11	2.054	33.86	-22.14	56.00	33.70	0.10	0.06	QP
12	2.054	33.85	-12.15	46.00	33.69	0.10	0.06	Average

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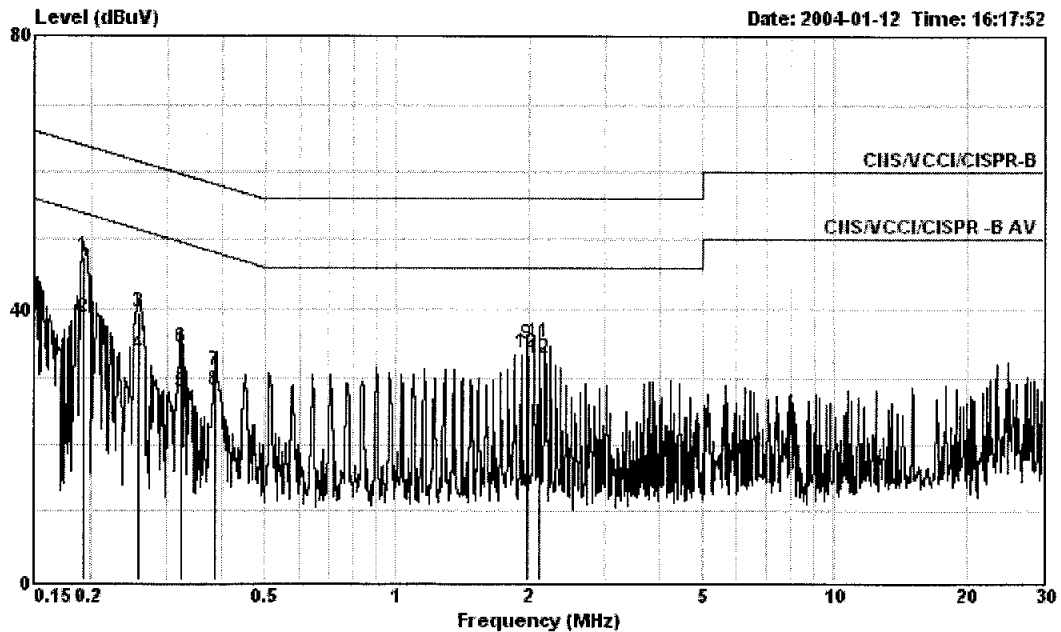
TEL : 886-2-2696-2468

FAX : 886-2-2696-2255

FCC ID : N/A

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Issued Date : Feb. 18, 2004



Site : site
 Condition : CNS/VCCI/CISPR-B 2003 2001/008 NEUTRAL
 EUT : ADAPTER
 Power : 110V 60Hz
 Memo :
 : 18V 0.84A

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.193	47.50	-16.41	63.91	47.38	0.10	0.02	QP
2	0.193	38.70	-15.21	53.91	38.58	0.10	0.02	Average
3	0.257	39.56	-21.96	61.52	39.44	0.10	0.02	QP
4	0.257	33.18	-18.34	51.52	33.06	0.10	0.02	Average
5	0.322	27.73	-21.93	49.66	27.61	0.10	0.02	Average
6	0.322	34.20	-25.46	59.66	34.08	0.10	0.02	QP
7	0.386	30.81	-27.35	58.16	30.69	0.10	0.02	QP
8	0.386	28.00	-20.16	48.16	27.88	0.10	0.02	Average
9	1.990	34.88	-21.12	56.00	34.72	0.10	0.06	QP
10	1.990	33.39	-12.61	46.00	33.23	0.10	0.06	Average
11	2.120	35.05	-20.95	56.00	34.88	0.11	0.06	QP
12	2.120	32.73	-13.27	46.00	32.56	0.11	0.06	Average

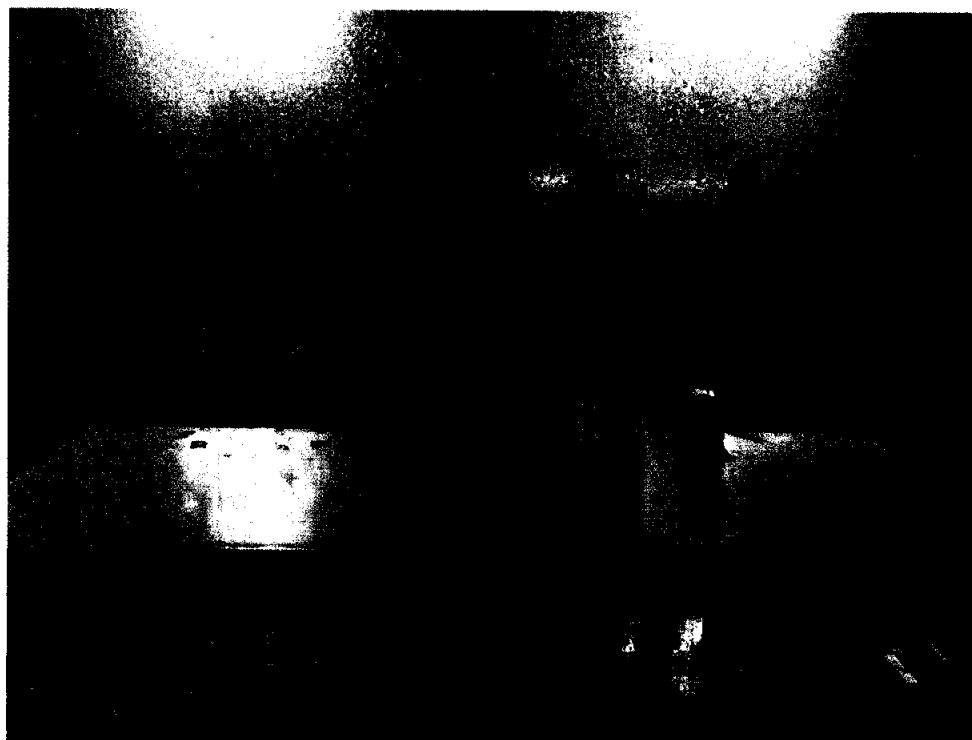
Test Engineer :

Jason
 Jason Chang

5.5. Photographs of Conducted Powerline Test Configuration

- The photographs show the configuration that generates the maximum emission.

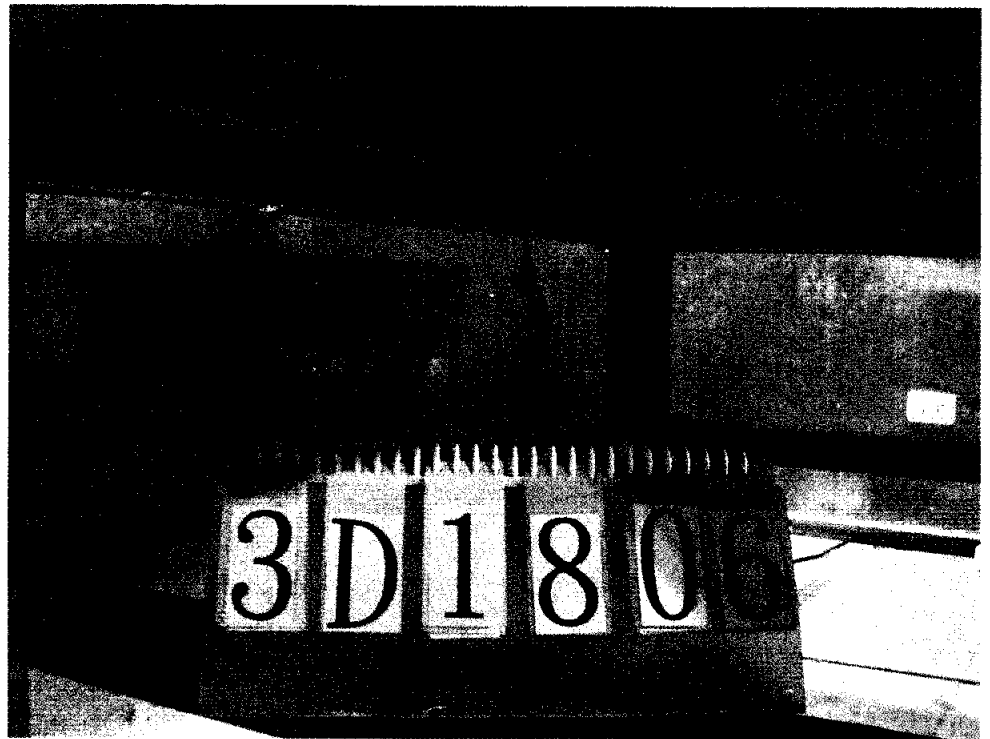
FRONT VIEW



REAR VIEW



SIDE VIEW



6. Test of Radiated Emission

Radiated emissions from 30 MHz to 1,000 MHz were measured with a bandwidth of 120 kHz according to the methods defines in ANSI C63.4-2001. The EUT was placed on a nonmetallic stand, 0.8 meter above the ground plane, as shown in section 6.3. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions.

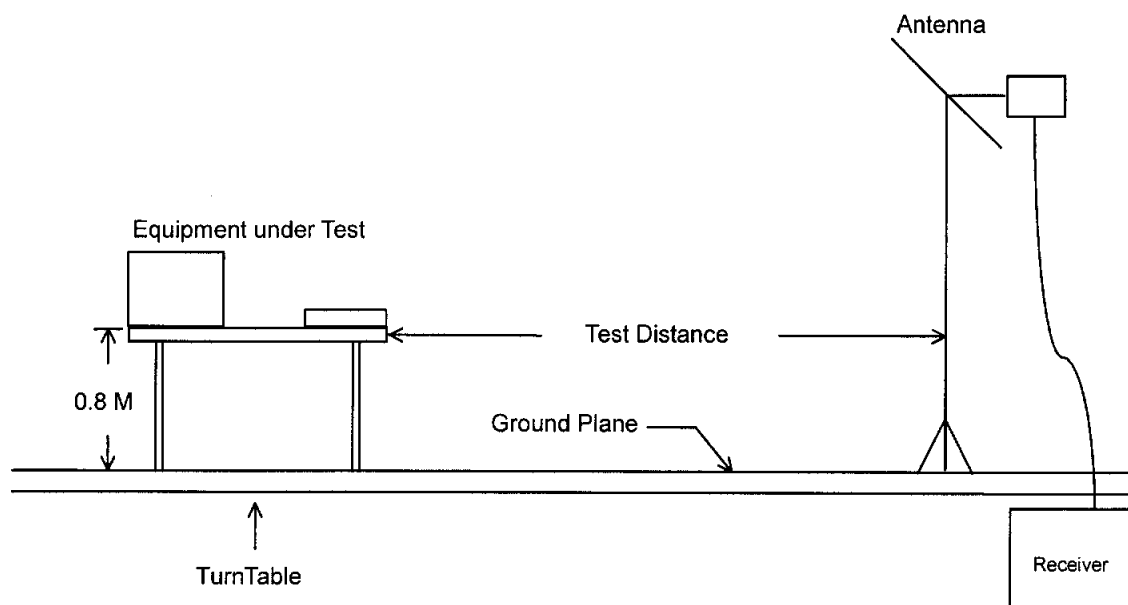
6.1. Major Measuring Instruments

- Amplifier (ADVENTEST BB525C)
 - RF Gain 30 dB
 - Signal Input 9 KHz to 3 GHz
- Spectrum Analyzer (R&S FSP7)
 - Attenuation 10 dB
 - Start Frequency 30 MHz
 - Stop Frequency 1000 MHz
 - Resolution Bandwidth 120 KHz
 - Signal Input 9 KHz to 7 GHz
- Test Receiver (R&S ESI 7)
 - Attenuation 10 dB
 - Start Frequency 30 MHz
 - Stop Frequency 1000 MHz
 - Resolution Bandwidth 120 KHz
 - Signal Input 20 Hz to 7 GHz

6.2. Test Procedures

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 10 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a half wave dipole and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
- e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.

6.3. Typical Test Setup Layout of Radiated Emission

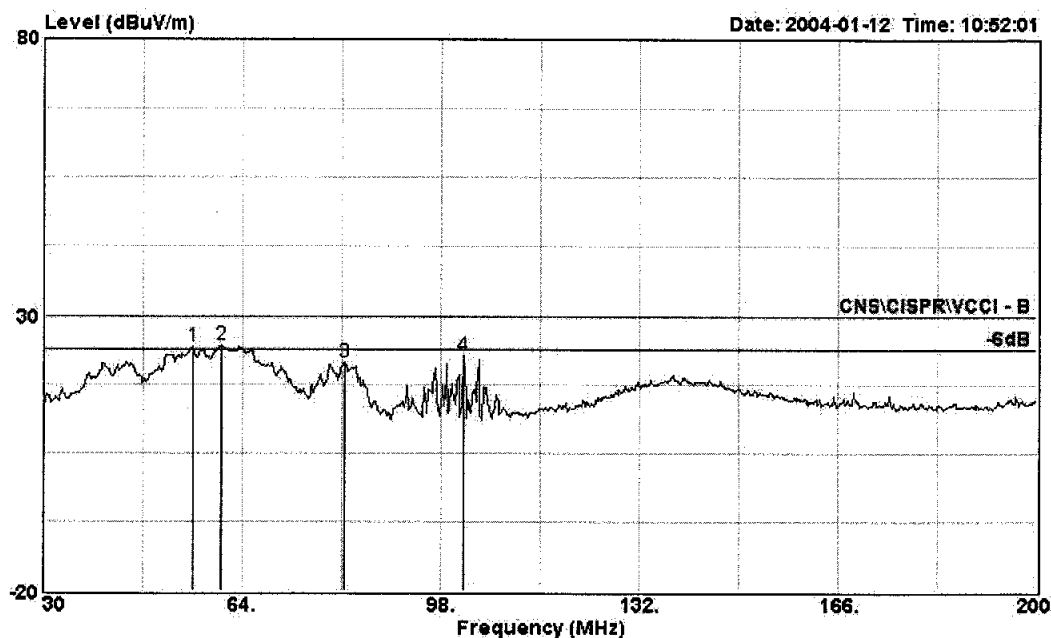


6.4. Test Result of Radiated Emission

6.4.1. Test Mode: Mode 1

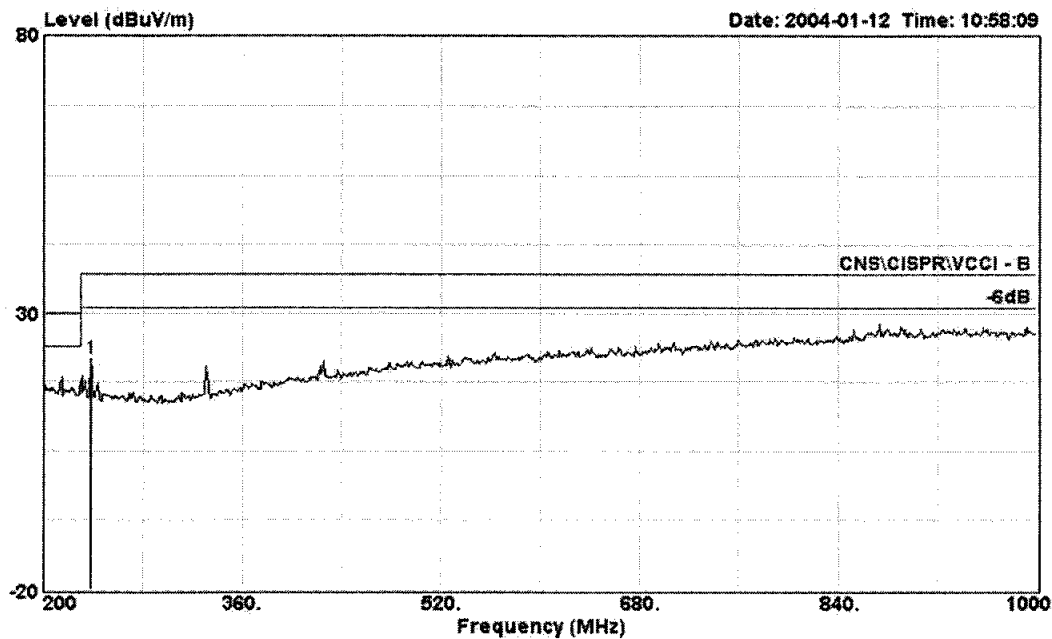
- Frequency Range of Test : from 30 MHz to 1000 MHz
- Temperature : 20.8°C
- Relative Humidity : 52%
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Probe + Cable Loss + Read Level - Preamp Factor = Level

The test was passed at the minimum margin that marked by the frame in the following test record



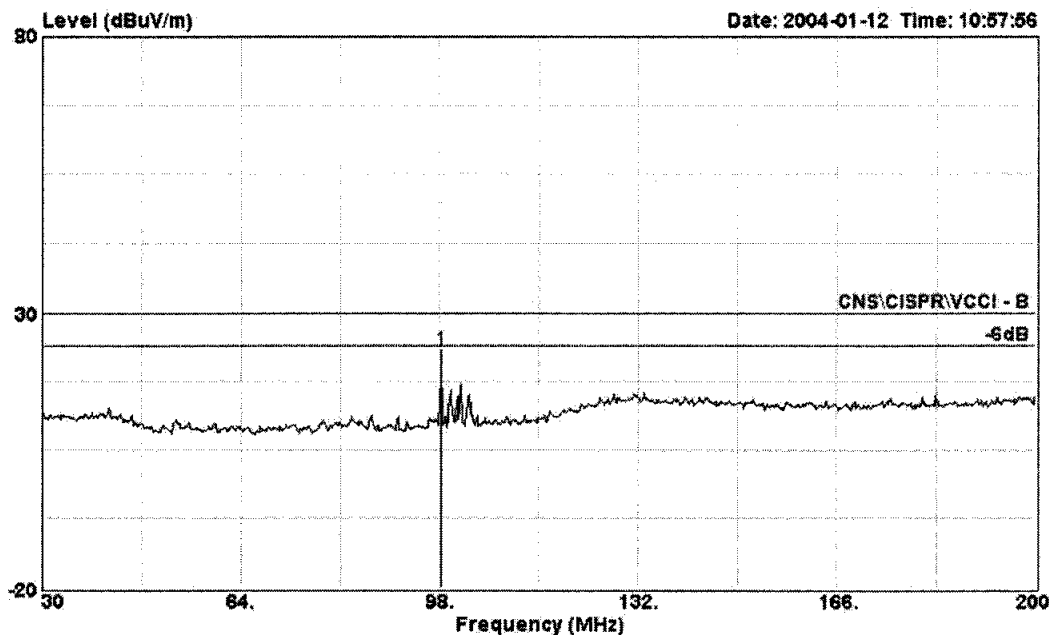
Site : 10CH01-HY
 Condition : CNS\CISPR\VCCI - B 10m BICONICAL-920809 VERTICAL
 EUT : ADAPTOR
 Power : 110V/60Hz
 Memo :
 Memo : DC 5V,2.6A
 Memo : FULL LOAD
 Memo :

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	55.500	24.48	-5.52	30.00	47.76	9.44	0.76	33.48	Peak	---	---
2	60.430	24.64	-5.36	30.00	47.62	9.69	0.79	33.46	QP	100	125
3	81.510	21.78	-8.22	30.00	44.97	9.30	0.88	33.37	Peak	---	---
4	101.910	23.09	-6.91	30.00	45.09	10.25	1.03	33.28	Peak	---	---



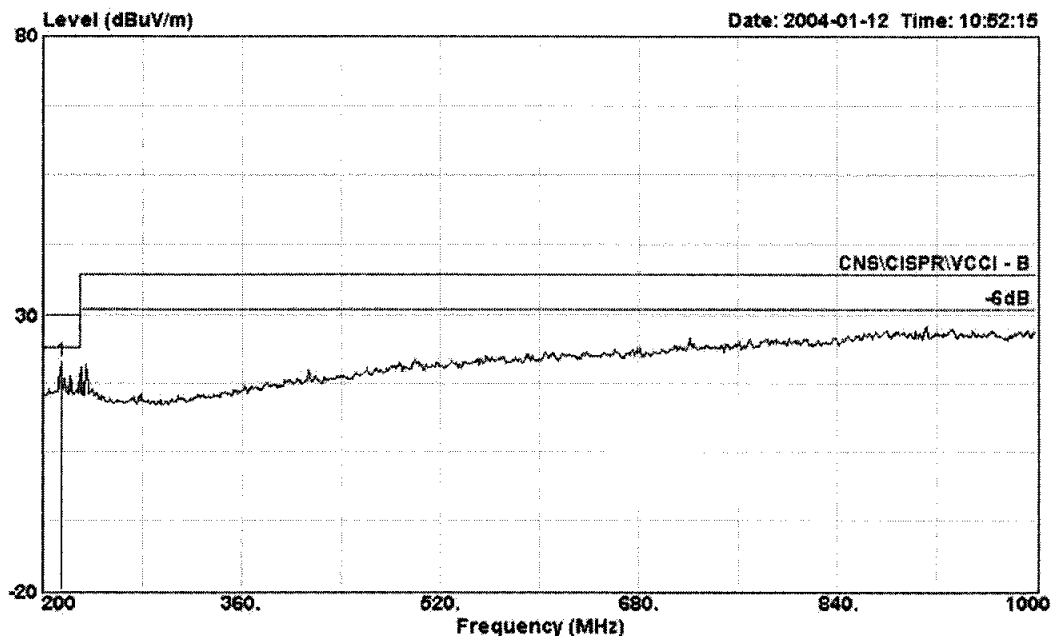
Site : 10CH01-HY
Condition : CNS\CISPR\VCCI - B 10m LOG-920809 VERTICAL
EUT : ADAPTOR
Power : 110V/60Hz
Memo :
Memo : DC 5V, 2.6A
Memo : FULL LOAD
Memo :

Freq	Level	Over	Limit	Read	Probe	Cable		Preamp	Remark	Ant	Table
		Limit	Line			Loss	Factor			Pos	Pos
MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB			cm	deg
1	237.600	21.61	-15.39	37.00	39.59	13.82	2.20	34.00	Peak	---	---



Site : 10CH01-HY
 Condition : CNS\CISPR\VCCI - B 10m BICONICAL-920809 HORIZONTAL
 EUT : ADAPTOR
 Power : 110V/60Hz
 Memo :
 Memo : DC 5V,2.6A
 Memo : FULL LOAD
 Memo :

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	98.340	23.25	-6.75	30.00	45.49	10.00	1.06	33.30	Peak	---	---



Site : 10CH01-HY
Condition : CNS\CISPR\VCCI - B 10m LOG-920809 HORIZONTAL
EUT : ADAPTOR
Power : 110V/60Hz
Memo :
Memo : DC 5V, 2.6A
Memo : FULL LOAD
Memo :

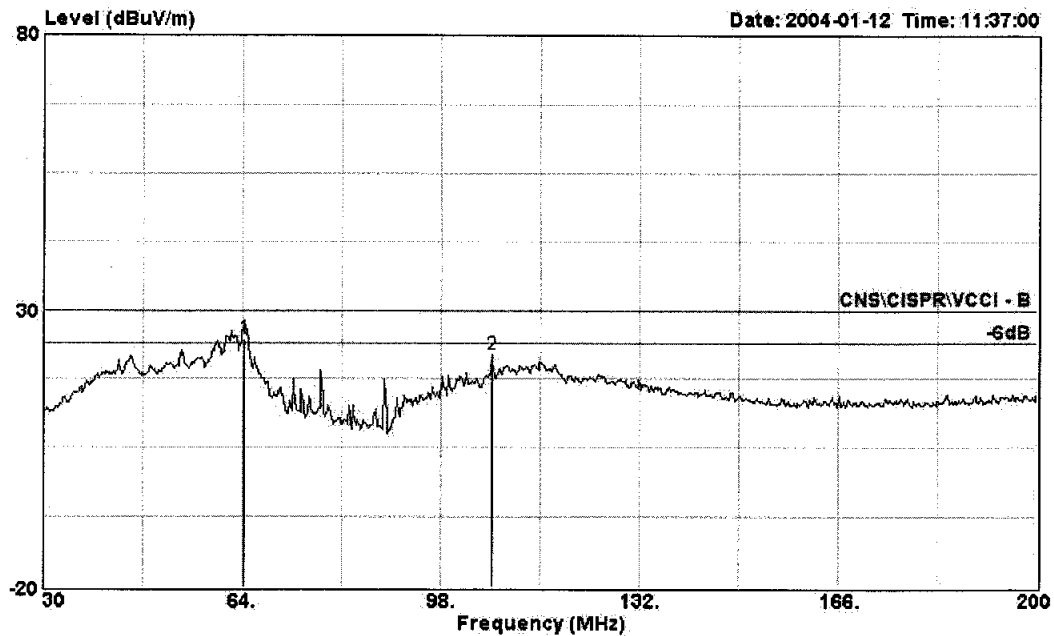
	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB	Remark	Pos	Pos
1	214.400	21.42	-8.58	30.00	39.00	14.57	1.85	34.00	Peak	---	---

Test Engineer : Verson Wang
Verson Wang

6.4.2. Test Mode: Mode 2

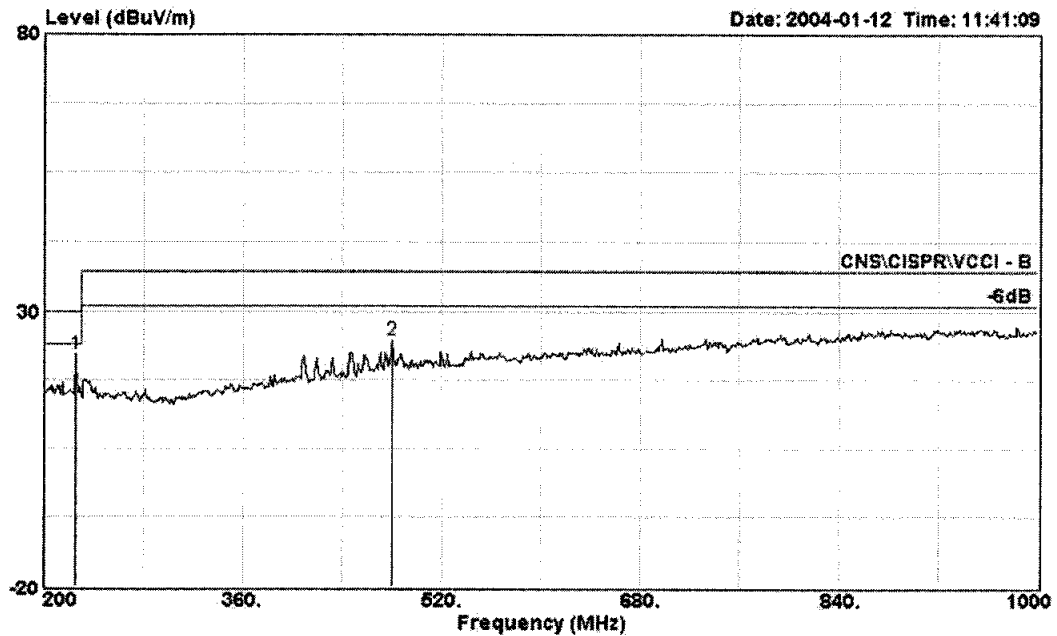
- Frequency Range of Test : from 30 MHz to 1000 MHz
- Temperature : 20.8°C
- Relative Humidity : 52%
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Probe + Cable Loss + Read Level - Preamp Factor = Level

■ The test was passed at the minimum margin that marked by the frame in the following test record



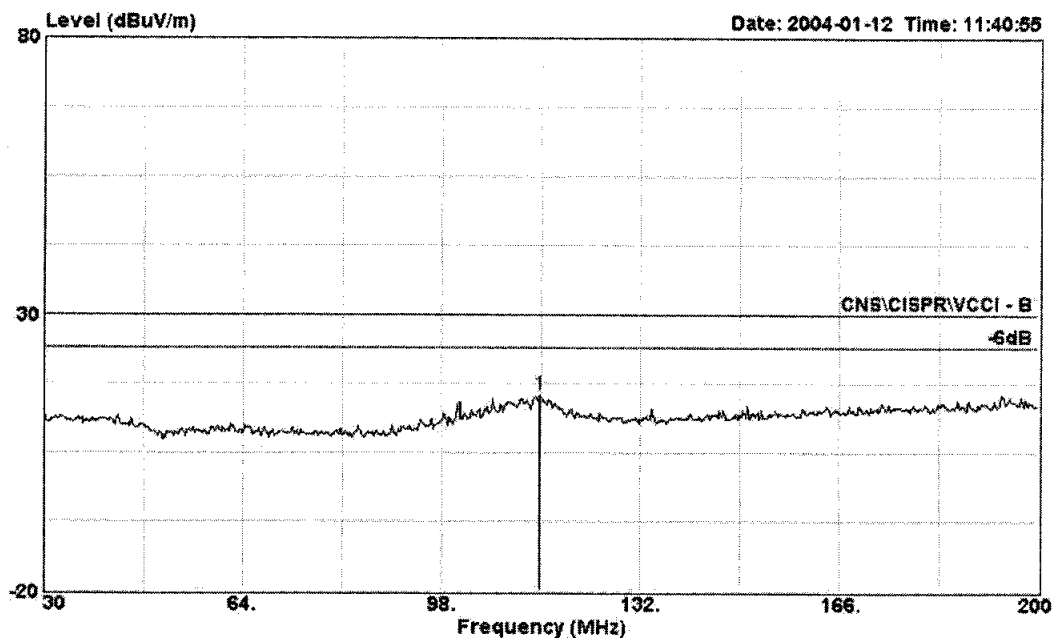
Site : 10CH01-HY
 Condition : CNS\CISPR\VCCI - B 10m BICONICAL-920809 VERTICAL
 EUT : ADAPTOR
 Power : 110V/60Hz
 Memo :
 Memo : DC 9V,1.7A
 Memo : FULL LOAD
 Memo :

	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos
MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		deg
1	64.340	24.79	-5.21	30.00	47.87	9.57	0.79	33.44 QP	103
2	106.670	22.07	-7.93	30.00	44.04	10.24	1.05	33.26 Peak	223



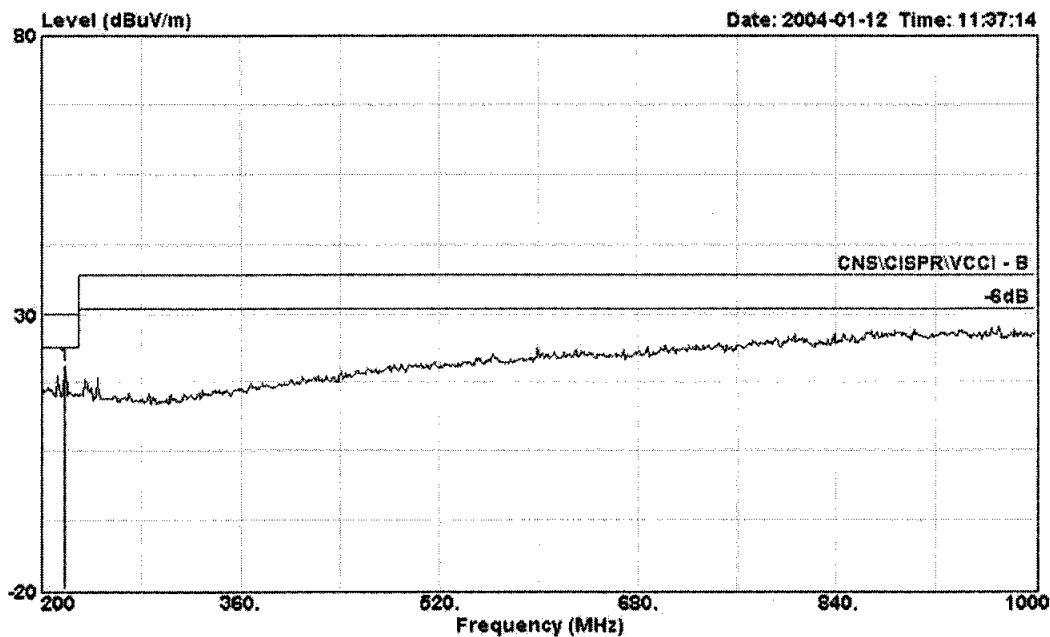
Site : 10CH01-HY
 Condition : CNS\CISPR\VCCI - B 10m LOG-920809 VERTICAL
 EUT : ADAPTOR
 Power : 110V/60Hz
 Memo :
 Memo : DC 9V, 1.7A
 Memo : FULL LOAD
 Memo :

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB	Remark	Pos	Pos
1	224.800	22.22	-7.78	30.00	39.95	14.23	2.04	34.00	Peak	---	---
2	480.000	24.79	-12.21	37.00	36.99	17.69	3.49	33.38	Peak	---	---



Site : 10CH01-HY
 Condition : CNS\CISPR\VCCI - B 10m BICONICAL-920809 HORIZONTAL
 EUT : ADAPTOR
 Power : 110V/60Hz
 Memo :
 Memo : DC 9V,1.7A
 Memo : FULL LOAD
 Memo :

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	114.830	15.57	-14.43	30.00	37.42	10.24	1.14	33.23	Peak	---	---



Site : 10CH01-HY
Condition : CNS\CISPR\VCCI - B 10m LOG-920809 HORIZONTAL
EUT : ADAPTOR
Power : 110V/60Hz
Memo :
Memo : DC 9V, 1.7A
Memo : FULL LOAD
Memo :

Freq	Level	Over	Limit	Read	Probe	Cable	Preamp	Remark	Ant	Table
		Limit	Line	Level	Factor	Loss	Factor		Pos	Pos
MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	218.400	20.69	-9.31	30.00	38.18	14.44	2.07	34.00 Peak	---	---

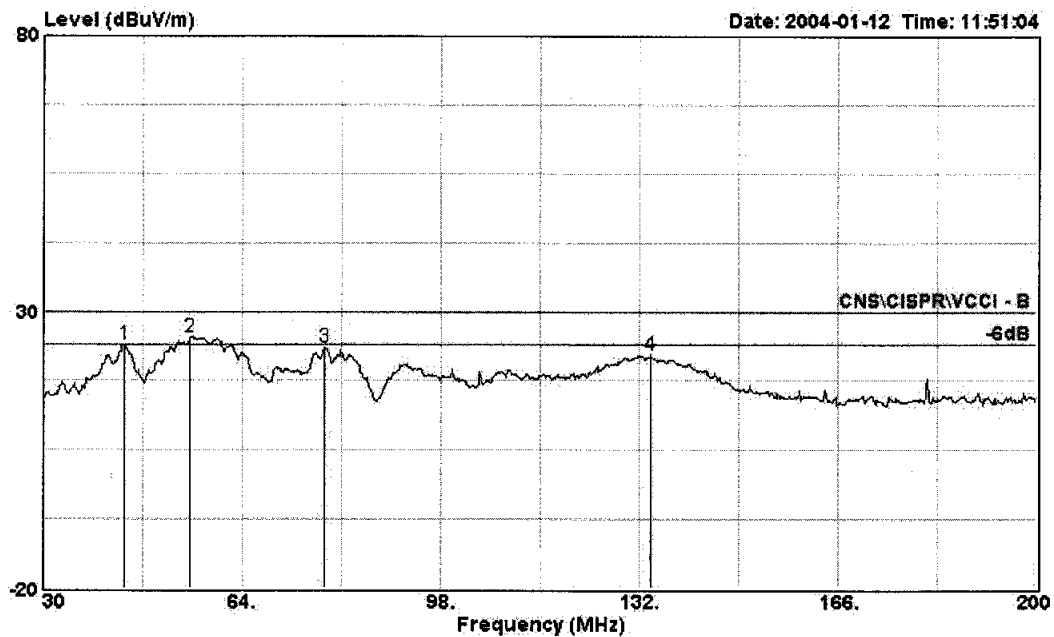
Test Engineer :

Verson Wang
Verson Wang

6.4.3. Test Mode: Mode 3

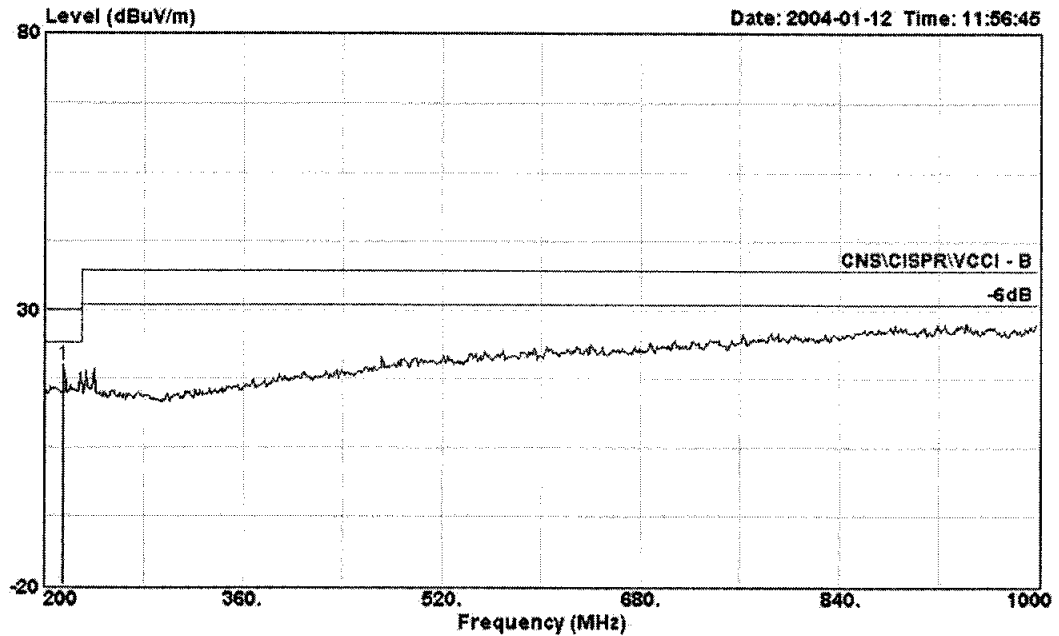
- Frequency Range of Test : from 30 MHz to 1000 MHz
- Temperature : 20.8°C
- Relative Humidity : 52%
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Probe + Cable Loss + Read Level - Preamp Factor = Level

■ The test was passed at the minimum margin that marked by the frame in the following test record



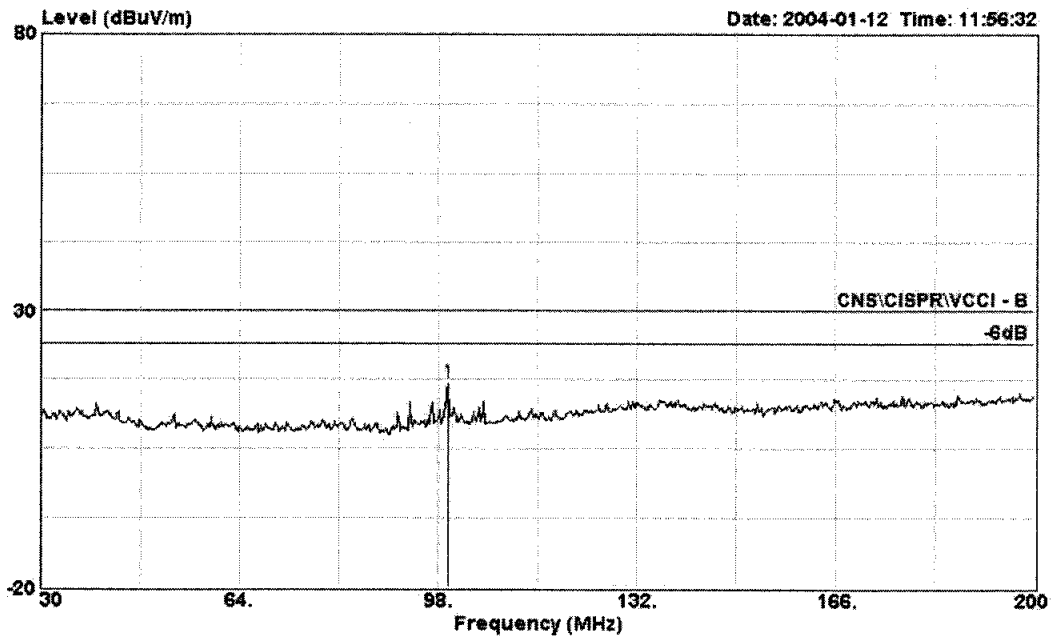
Site : 10CH01-HY
 Condition : CNS\CISPR\VCCI - B 10m BICONICAL-920809 VERTICAL
 EUT : ADAPTOR
 Power : 110V/60Hz
 Memo :
 Memo : DC 18V,0.84A
 Memo : FULL LOAD
 Memo :

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1 !	43.940	24.09	-5.91	30.00	45.36	11.59	0.65	33.51	Peak	---	---
2 !	54.990	25.36	-4.64	30.00	48.67	9.41	0.76	33.48	QP	100	125
3	78.110	23.39	-6.61	30.00	46.53	9.39	0.85	33.38	Peak	---	---
4	133.870	22.12	-7.88	30.00	42.67	11.44	1.17	33.16	Peak	---	---



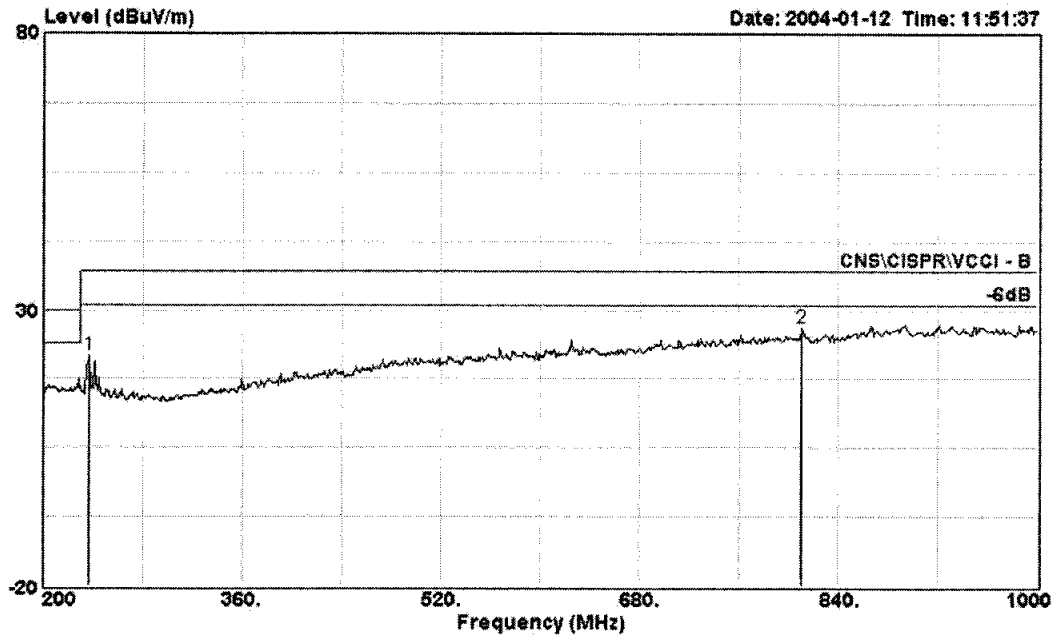
Site : 10CH01-HY
Condition : CNS\CISPR\VCCI - B 10m LOG-920809 VERTICAL
EUT : ADAPTOR
Power : 110V/60Hz
Memo :
Memo : DC 18V, 0.84A
Memo : FULL LOAD
Memo :

Freq	Level	Over Limit		Read Level	Probe Factor	Cable Preamp		Remark	Ant	Table
		dB	dBuV/m			dB	dB		Pos	Pos
MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	215.200	19.95	-10.05	30.00	37.48	14.54	1.93	34.00 Peak	---	---



Site : 10CH01-HY
Condition : CNS\CISPR\VCCI - B 10m BICONICAL-920809 HORIZONTAL
EUT : ADAPTOR
Power : 110V/60Hz
Memo :
Memo : DC 18V,0.84A
Memo : FULL LOAD
Memo :

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	99.700	16.87	-13.13	30.00	38.91	10.20	1.05	33.29	Peak	---	---



Site : 10CH01-HY
 Condition : CNS\CISPR\VCCI - B 10m LOG-920809 HORIZONTAL
 EUT : ADAPTOR
 Power : 110V/60Hz
 Memo :
 Memo : DC 18V, 0.84A
 Memo : FULL LOAD
 Memo :

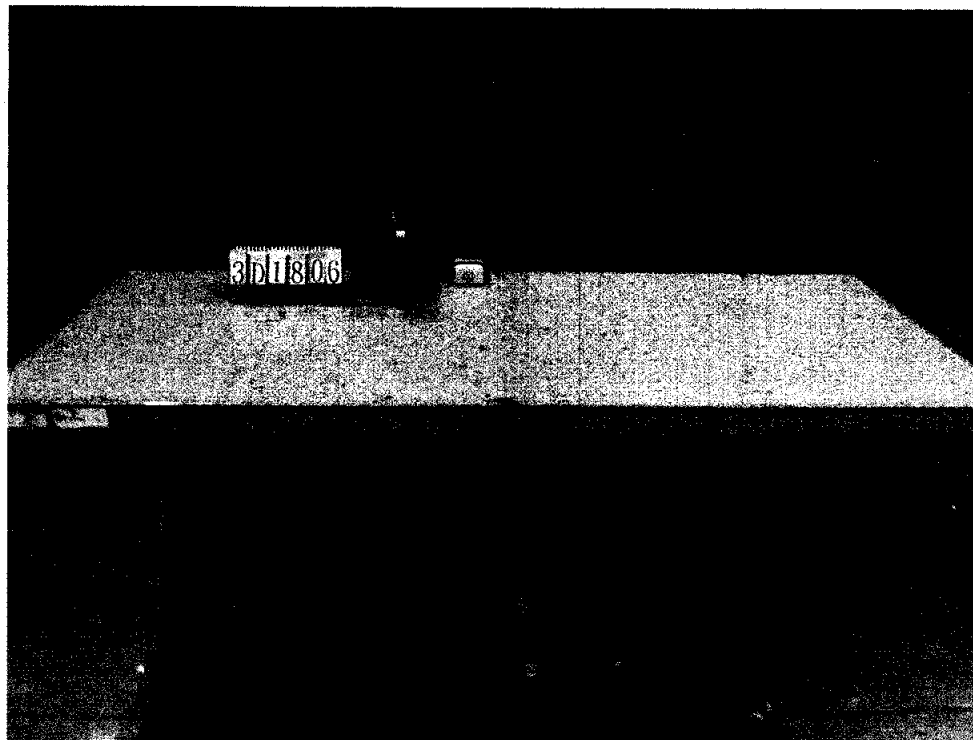
	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	236.800	21.69	-15.31	37.00	39.64	13.85	2.20	34.00	Peak	---	---
2	810.400	26.83	-10.17	37.00	33.70	21.13	4.21	32.21	Peak	---	---

Test Engineer : Verson Wang
 Verson Wang

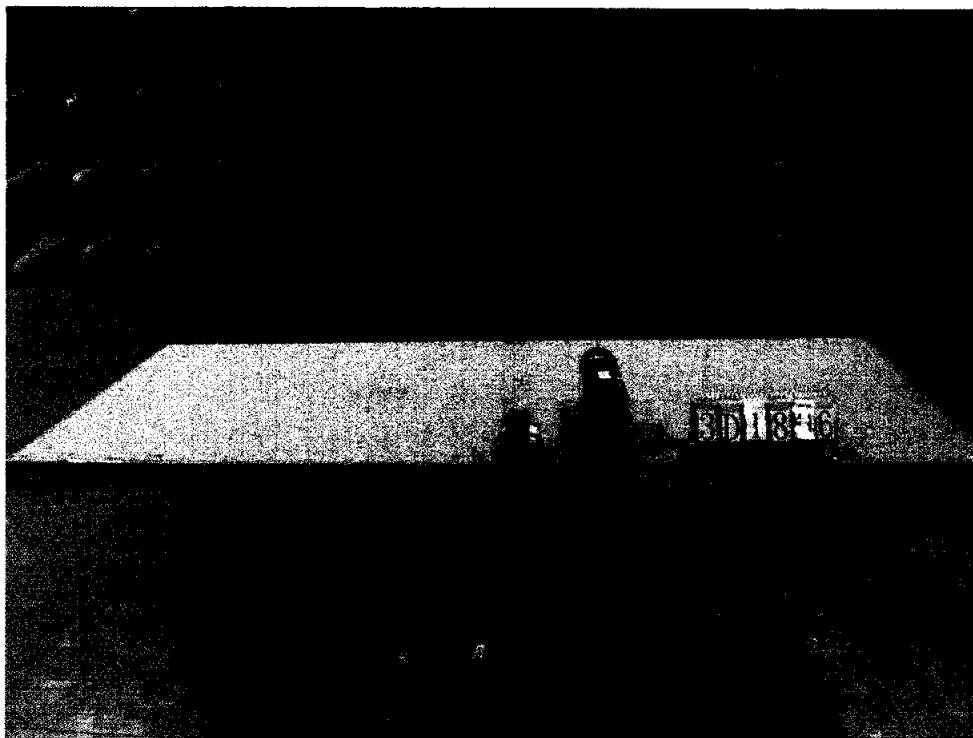
6.5. Photographs of Radiated Emission Test Configuration

- The photographs show the configuration that generates the maximum emission.

FRONT VIEW



REAR VIEW



7. Antenna Factor & Cable Loss

Frequency (MHz)	Antenna Factor (dB)	Cable Loss (dB)
30	12.86	0.70
35	12.16	0.74
40	12.49	0.72
45	11.35	0.75
50	9.13	0.78
55	9.42	0.80
60	9.70	0.91
65	9.55	1.00
70	9.41	1.01
75	9.40	1.02
80	9.39	1.06
85	9.07	1.06
90	8.77	1.10
95	9.50	1.05
100	10.25	1.05
110	10.24	1.16
120	10.23	1.32
130	11.13	1.54
140	11.92	1.57
150	12.13	1.47
160	12.56	1.37
170	13.15	1.34
180	13.44	1.41
190	13.99	1.58
200	14.53	1.77
200	14.53	2.15
220	14.39	2.24
240	13.75	2.31
260	13.32	2.40
280	13.09	2.47
300	12.86	2.56
320	13.43	2.68
340	14.00	2.75
360	14.58	2.87
380	15.15	2.91
400	15.72	3.07
450	16.94	3.19
500	18.18	3.34
550	18.93	3.61
600	19.69	3.70
650	20.04	3.95
700	20.40	4.08
750	20.69	4.22
800	20.99	4.33
850	21.67	4.52
900	22.36	4.62
950	22.21	4.82
1000	22.06	4.99

8. List of Measuring Equipment Used

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMC Receiver	R&S	ESCS 30	100132	9 KHz – 2.75 GHz	Jun. 12, 2003	Conduction (CO01-HY)
LISN	MessTec	NNB-2/16Z	2001-008	9 KHz – 30 MHz	Apr. 30, 2003	Conduction (CO01-HY)
LISN (Support Unit)	MessTec	NNB-2/16Z	2001-009	9 KHz – 30 MHz	Apr. 30, 2003	Conduction (CO01-HY)
EMI Filter	LINDGREN	LRE-2060	1004	< 450 Hz	N/A	Conduction (CO01-HY)
EMI Filter	LINDGREN	N6006	201052	0 ~ 60 Hz	N/A	Conduction (CO01-HY)
RF Cable-CON	Suhner Switzerland	RG223/U	CB029	9KHz~30MHz	Dec. 24, 2003	Conduction (CO01-HY)
50 ohm BNC type Terminal	NOBLE	50ohm	TM013	50 ohm	Apr. 24, 2003	Conduction (CO01-HY)
10m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-10M	10CH01-HY	30MHz~1GHz 10m,3m	Jun. 29, 2003	Radiation (10CH01-HY)
Spectrum Analyzer	R&S	FSP7	838858/013	9KHz – 7GHz	Jan. 29, 2003	Radiation (10CH01-HY)
Receiver	R&S	ESI7	838496/009	20Hz – 7GHz	Jan. 27, 2003	Radiation (10CH01-HY)
Biconical Antenna	SCHWARZBECK	VHBB 9124	286	30MHz – 200MHz	Aug. 09, 2003	Radiation (10CH01-HY)
Log Antenna	SCHWARZBECK	VUSLP 9111	206	200MHz -1GHz	Aug. 09, 2003	Radiation (10CH01-HY)
Amplifier	ADVENTEST	BB525C	CH100001	9KHz – 3GHz	Nov. 28, 2003	Radiation (10CH01-HY)
Amplifier	ADVENTEST	BB525C	CH100002	9KHz – 3GHz	Nov. 28, 2003	Radiation (10CH01-HY)
Turn Table	HD	DT 60 RPS	1513/004/00	0 ~ 360 degree	N/A	Radiation (10CH01-HY)
Antenna Mast	HD	MA240	240/556/00	1 m - 4 m	N/A	Radiation (10CH01-HY)
Antenna Mast	HD	MA240	240/559/00	1 m - 4 m	N/A	Radiation (10CH01-HY)
RF Cable-R10m	BELDEN	RG8/U	CB023-INSIDE	30MHz~1GHz	Sep. 04, 2003	Radiation (10CH01-HY)
RF Cable-R10m	Suhner Switzerland + Rosenberger	RG223/U + UAA220A-0	CB022-DOOR	30MHz~1GHz	Dec. 02, 2003	Radiation (10CH01-HY)

※ Calibration Interval of instruments listed above is one year.

9. Uncertainty of Test Site

Uncertainty of Radiated Emission Measurement

Contribution	Probability Distribution	3m	10m
Antenna factor calibration	normal(k=2)	±1	±1
cable loss calibration	normal(k=2)	±0.3	±0.3
RCV/SPA specification	rectangular	±2	±2
Antenna Directivity	rectangular	±3	±0.5
Antenna Factor V.S. Height	rectangular	±2	±2
Antenna Factor Interpolation for Frequency	rectangular	±0.25	±0.25
site imperfection	rectangular	±2	±2
Mismatch Receiver VSWR $\Gamma_1=0.09$ Antenna VSWR $\Gamma_2=0.67$ Uncertainty= $20\log(1-\Gamma_1*\Gamma_2)$	U-shaped	±0.54	±0.54
combined standard uncertainty $U_e(y)$	normal	±2.7	±2.2
Measuring uncertainty for a level of confidence of 95% $U=2U_e(y)$	normal (k=2)	±5.4	±4.4

$$U=\sqrt{\{(1/2)^2+(0.3/2)^2+(2^2+0.5^2+2^2+0.25^2+2^2)/3+(0.54)^2/2\}}=2.2 \text{ for 10m test distance}$$

$$U=\sqrt{\{(1/2)^2+(0.3/2)^2+(2^2+3^2+2^2+0.25^2+2^2)/3+(0.54)^2/2\}}=2.7 \text{ for 3m test distance}$$

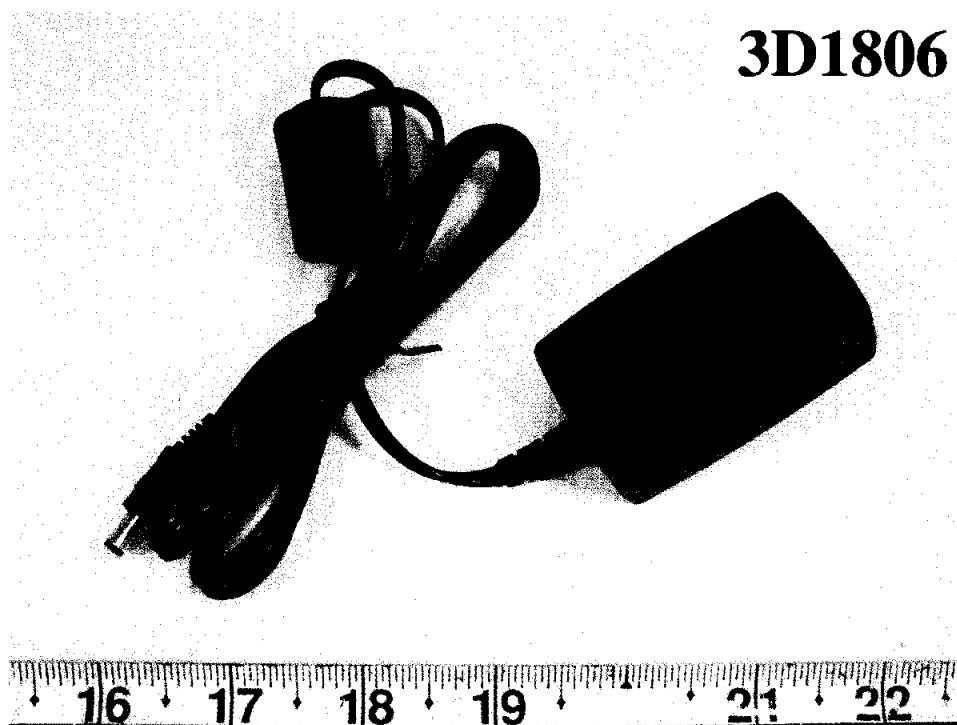
Uncertainty of Conducted Emission Measurement

Contribution	Probability Distribution	150KHz – 30MHz
Cable and I/P attenuator calibration	normal(k=2)	±0.3
RCV/SPA specification	rectangular	±2
LISN coupling specification	rectangular	±1.5
Transducer factor frequency interpolation	rectangular	±0.2
Mismatch Receiver VSWR $\Gamma_1=0.09$ LISN VSWR $\Gamma_2=0.33$ Uncertainty= $20\log(1-\Gamma_1*\Gamma_2)$	U-shaped	0.2
combined standard uncertainty $U_e(y)$	normal	±1.66
Measuring uncertainty for a level of confidence of 95% $U=2U_e(y)$	normal (k=2)	±3.32

$$U=\sqrt{\{(0.3/2)^2+(2^2+1.5^2+0.2^2)/3+(0.2)^2/2\}}=1.66$$

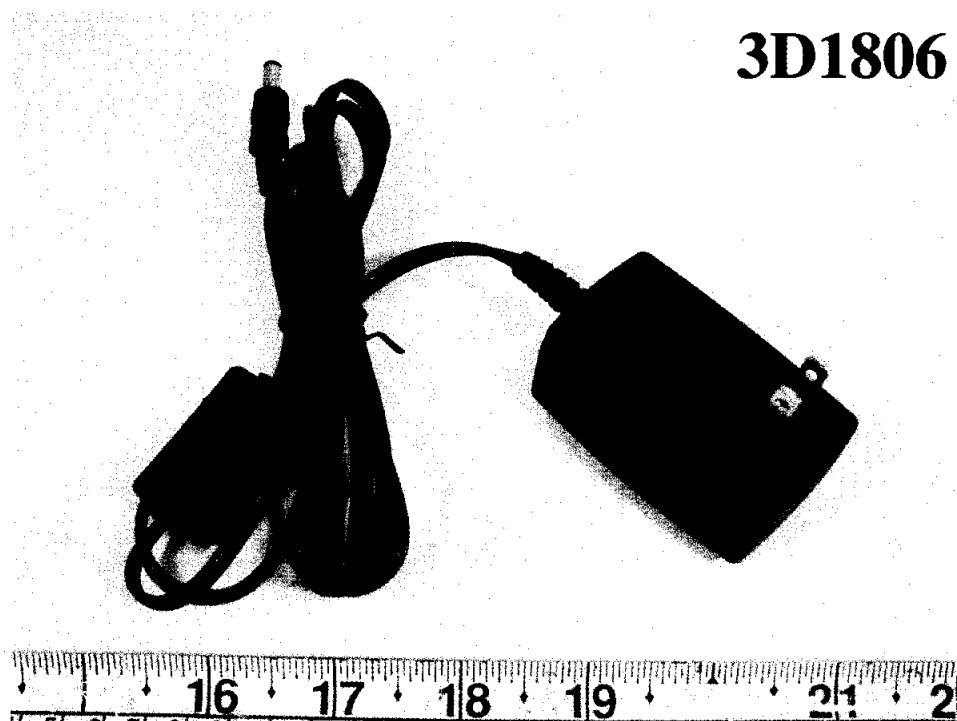
APPENDIX A. Photographs of EUT

3D1806

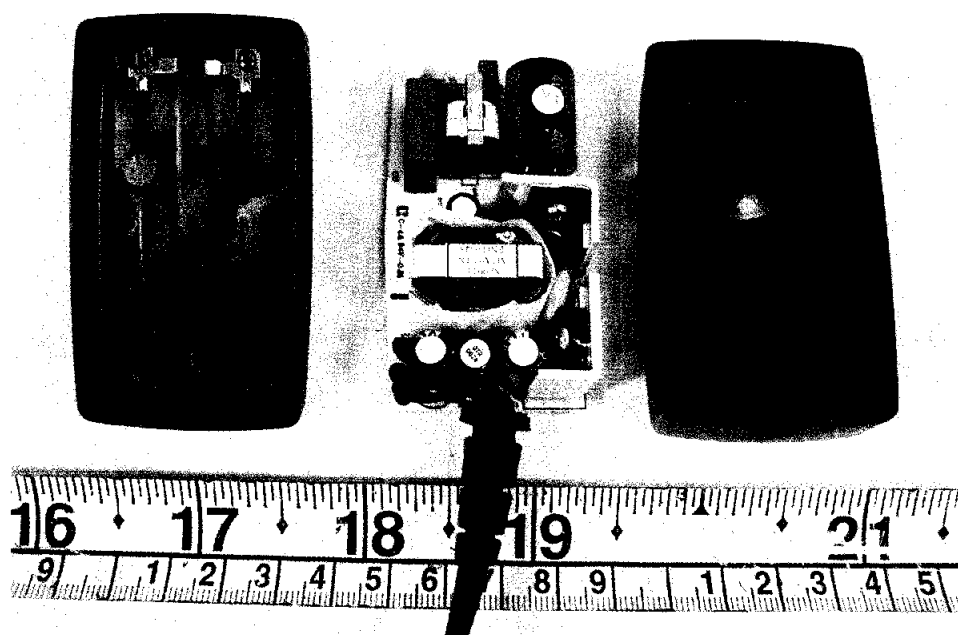


5V

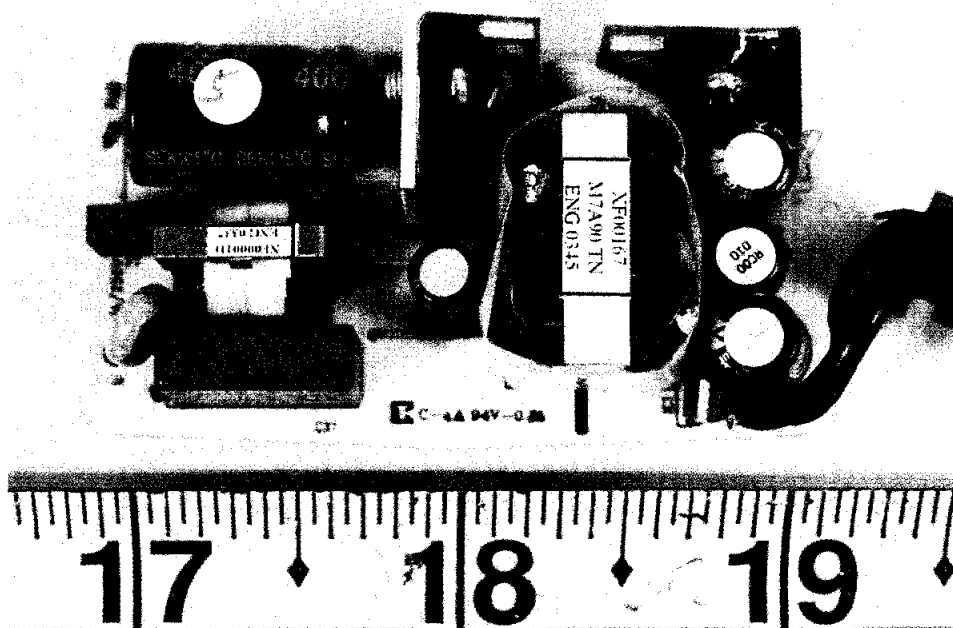
3D1806



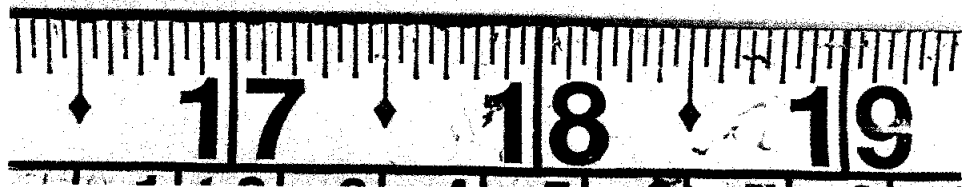
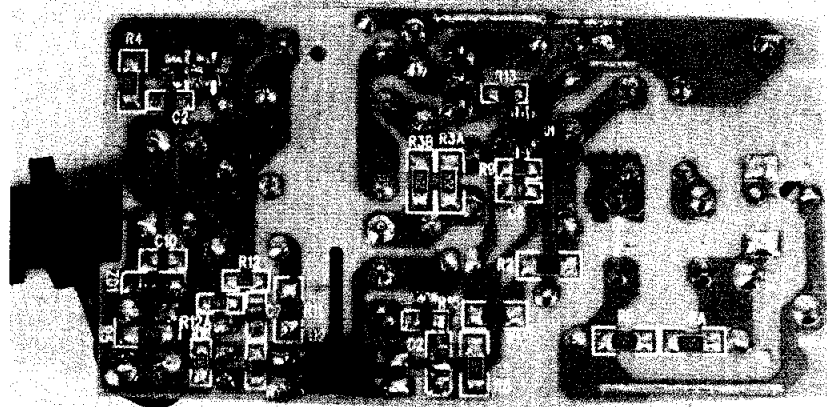
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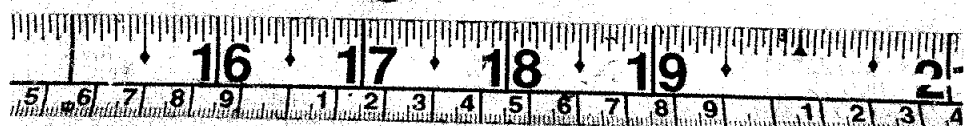
3D1806



3D1806

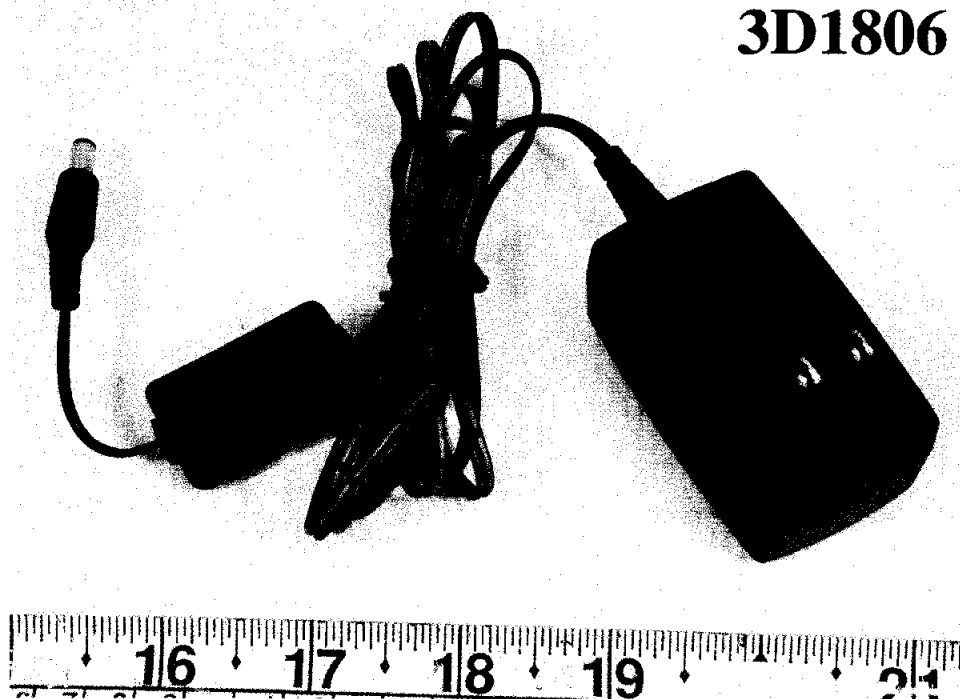


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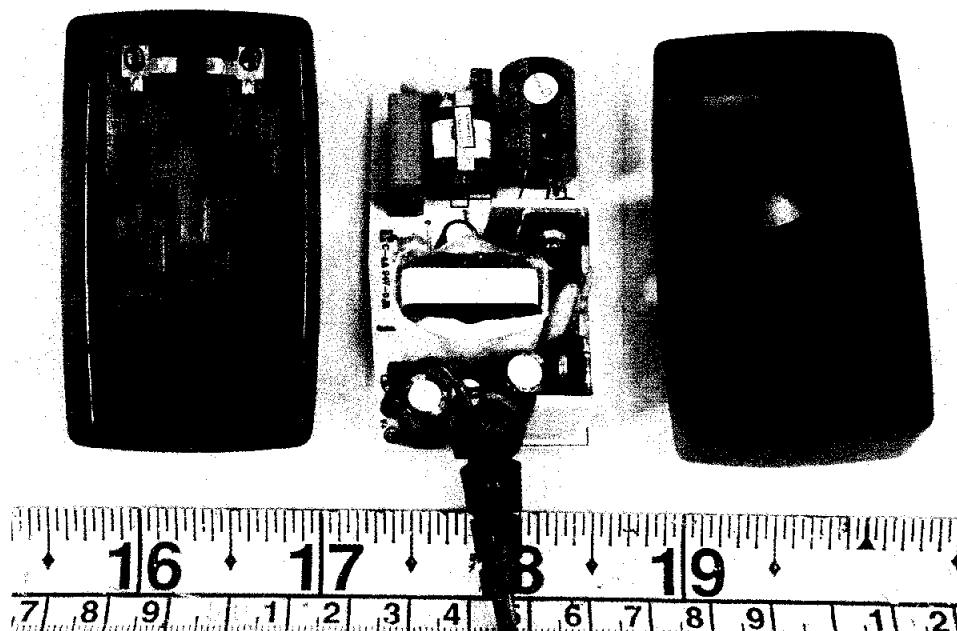


9V

3D1806



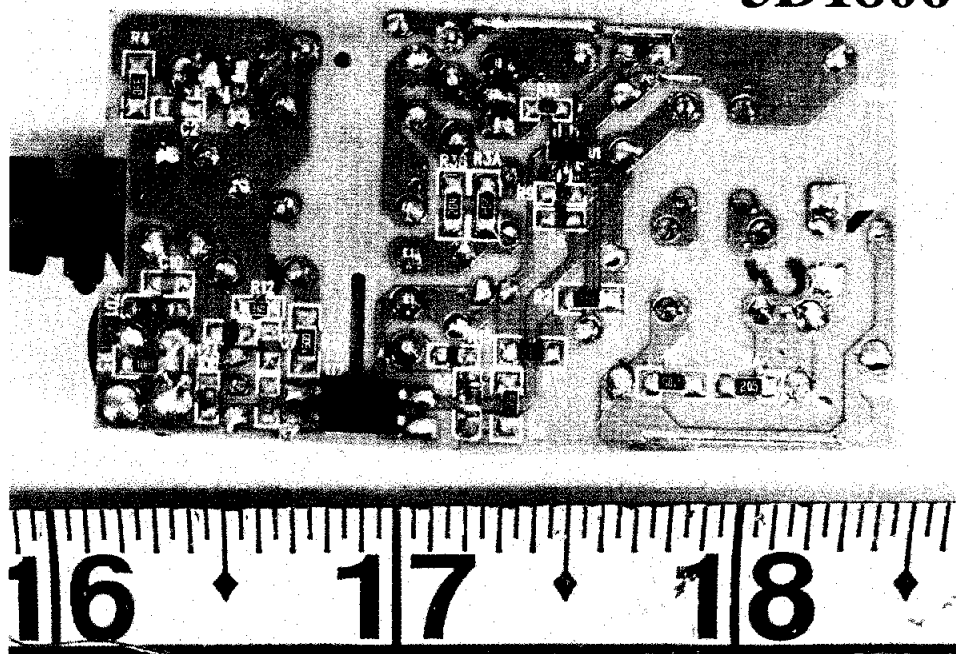
3D1806

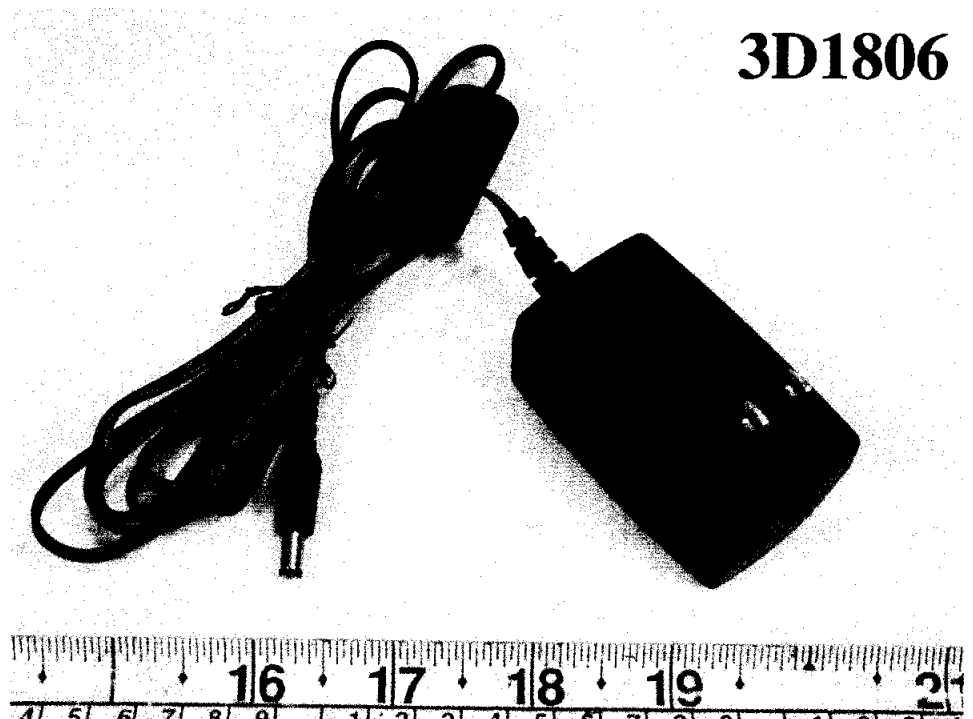
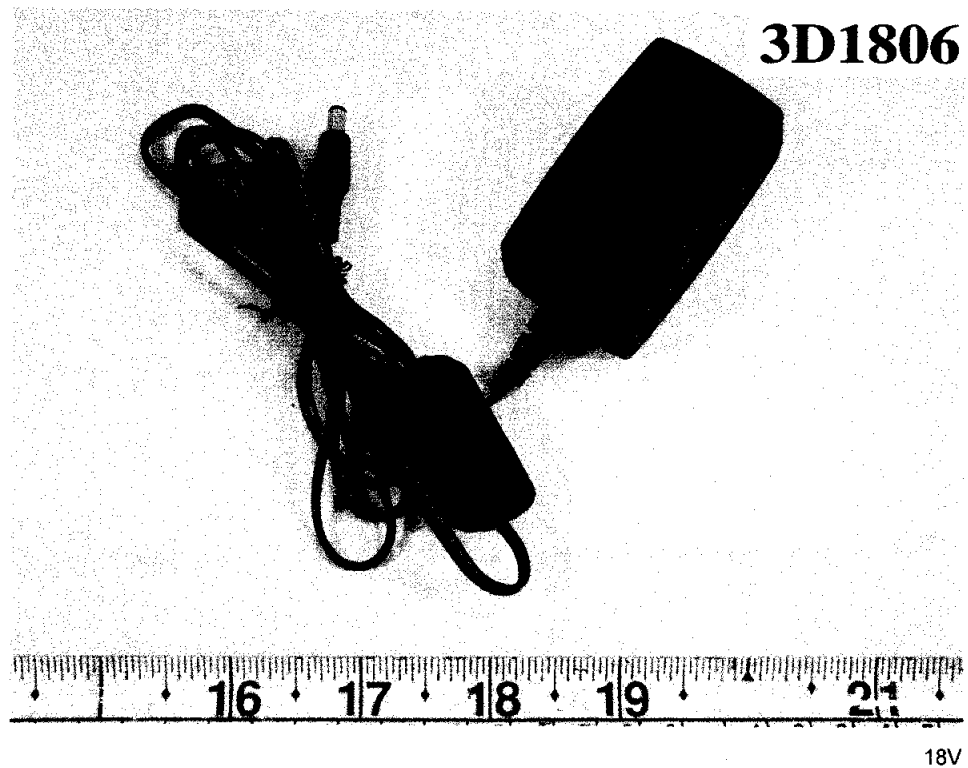


3D1806

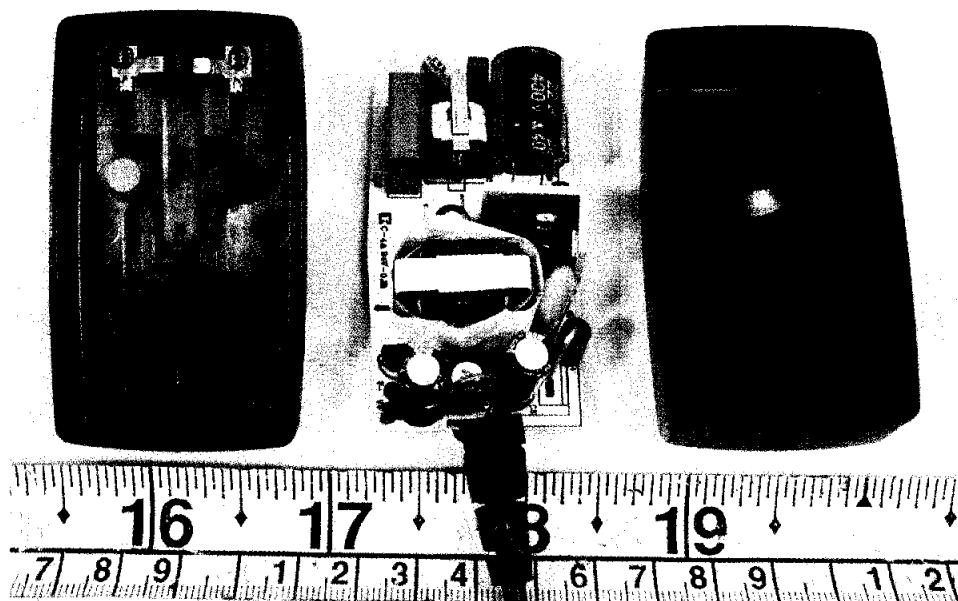


3D1806

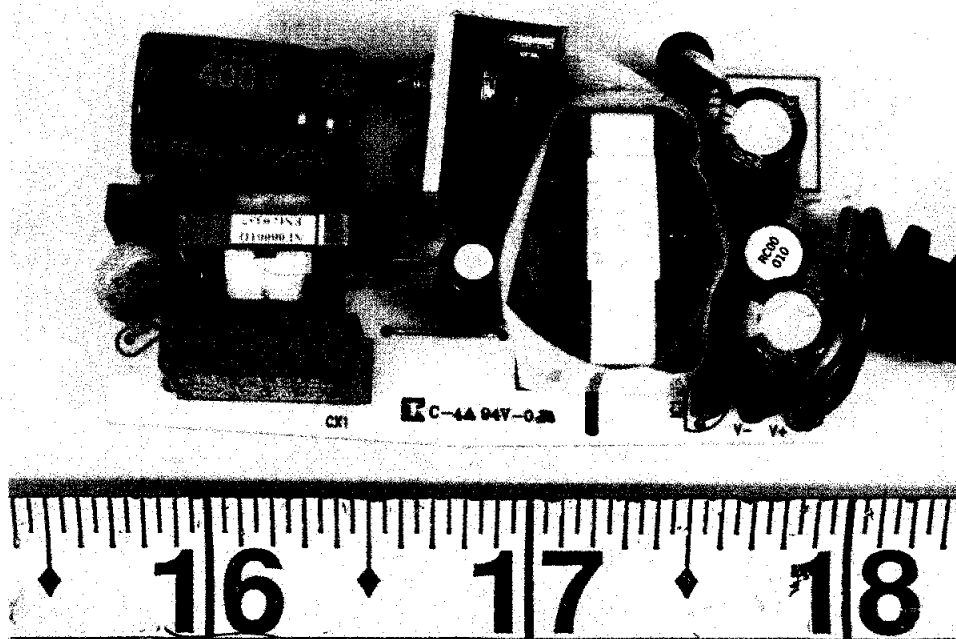




3D1806



3D1806



3D1806

