FCC – Test Report

Date: 2010-12-09

No. 54812

LABORATORY - REPORT

APPLICANT:	EVER SHINING TECHNICAL COMPANY LIMITED
ADDRESS:	Flat 8, 13/F., Wah Yiu Industrial Centre 30-32 Au Pui Wan Street Fo Tan, Shatin, N.T. Hong Kong
DATE OF SAMPLE RECEIVED:	2010-11-16
DATE OF TESTING:	2010-11-24 to 2010-12-03

DESCRIPTION OF SAMPLE:

Product:	USB Turntable
Product class:	Class B Computing Device Peripheral
Model No.:	L-79
FCC ID number:	Y3YL-79
Rating:	AC/DC adaptor : S006MU1200030, Input : AC 100-240V 50/60Hz, Output : DC 12V 300mA

CONDITION OF TEST SAMPLE:	The received sample was under good condition.
INVESTIGATIONS REQUESTED:	Measurements to the relevant clauses of F.C.C. Rules and Regulations Part 15 Subpart B – 'Unintentional Radiators'
RESULTS:	See the attached test sheets
CONCLUSIONS:	From the measurement data obtained, the tested sample was considered to have COMPLIED with the requirements for the relevant clauses of Federal Communications Commission Rules as specified above.

INTERNATIONAL ELECTRICAL CERTIFICATION CENTRE LTD. IECC 國際電器認證中心有限公司

Stephen C.N. Wong
Technical Manager

Address 地址 Units 602-605, 6/F., 31 Lok Yip Rd., On Lok Tsuen, Fanling, N.T., Hong Kong 香港新界粉嶺安樂村樂業路31號6樓602-605室
Tel 電話 (852) 2305 2570 Fax 傳真 (852) 2756 4480 E-mail 電子郵件 info@iecc.com.hk Home Page 網頁 http://www.iecc.com.hk
China 中國 Address 地址: IECC (Guangzhou) Services Co., Ltd. 廣州時並進技術服務有限公司 Flat A, 2/F., Block 3, 56 Shuiyin Road, Guangzhou, P.R. of China 廣州市水陰路56號3幢2A室 Postcode 郵政編號 510075
Tel 電話 (86-20) 8768 4838 Fax 傳真: (86-20) 8768 3918 E-mail 電子郵件 info@iecc.net.cn Home Page 網頁: http://www.iecc.net.cn

FCC – Test Report

Date: 2010-12-09

No. 54812

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Test Locations

International Electrical Certification Centre Ltd.
Units 602-605, 31 Lok Yip Road, On Lok Tsuen, Fanling, N.T., Hong Kong
Tel : +852 23052570
Fax : +852 27564480
Email : info@iecc.com.hk

Summary of Test Results

Radiated Emission:

Test result: O.K.
Test data: See attached data sheet

Conducted Emission:

Test result: O.K.
Test data: See attached data sheet

TEST EQUIPMENT LIST

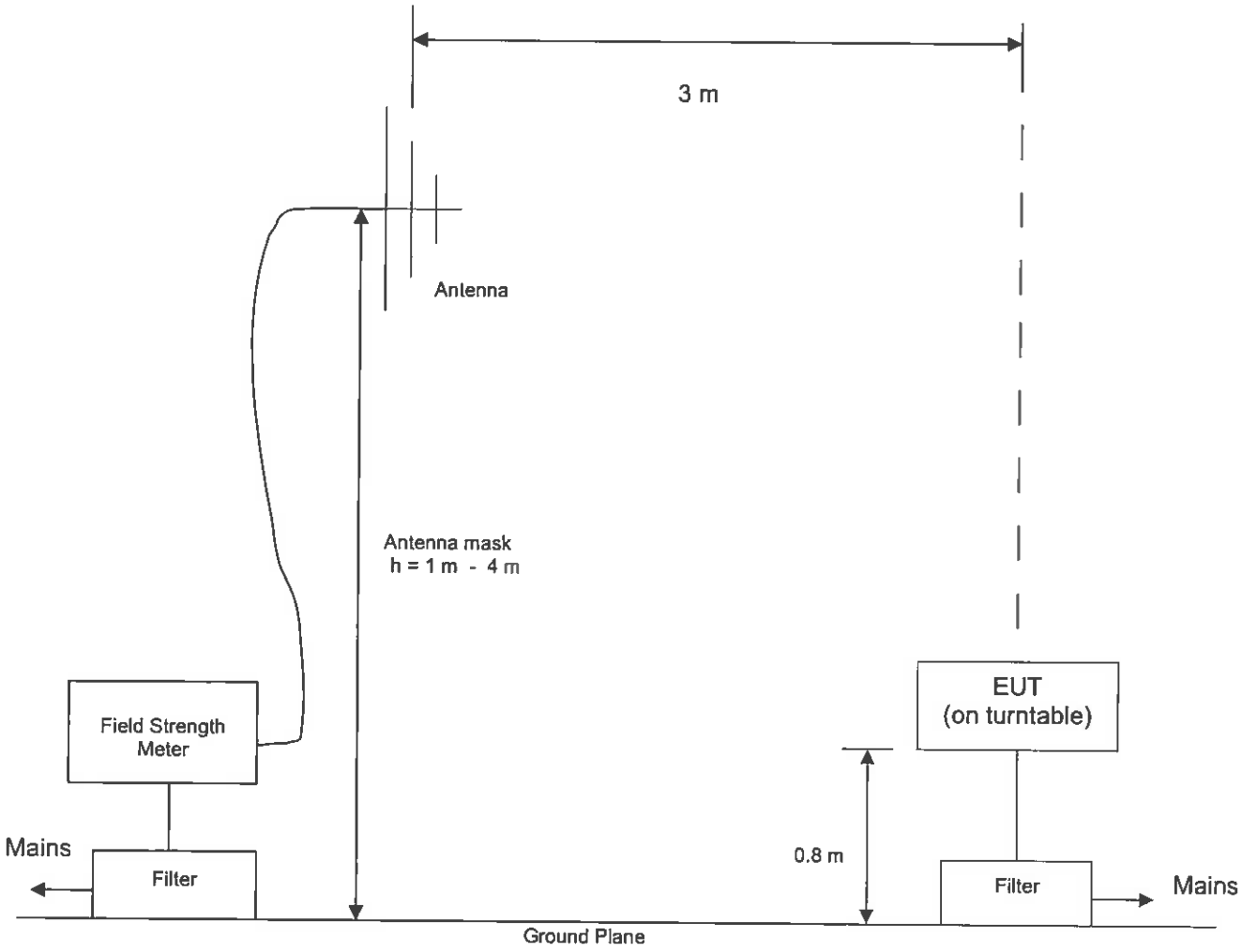
Equipment	Manufacturer	Model	Serial No.	Last Calibration Date	Next Calibration Date
Test Receiver	Rohde & Schwarz	ESCS 30	100388	11/11/2010	10/11/2011
Test Receiver	Rohde & Schwarz	ESHS 30	839667/002	19/05/2010	18/05/2011
Artificial Mains Network (LISN)	Schwarzbeck	NSLK 8127	8127312	11/01/2010	10/01/2011
Antenna	Schaffner	CBL6111C	2791	30/09/2010	29/09/2012
Antenna Mast System	Schwarzbeck	AM9104	--	--	--
Turntable with Controller	Drehtisch	DT312	--	--	--
Spectrum Analyzer with Q. Peak	Advantest	R3132	140101852	20/05/2010	19/05/2011

TEST SUPPORT UNITS

The sample was tested with the following PC system :

Equipment	Manufacturer	Model	Serial No.
NoteBook	DELL	PP10S	H8893 A02
Keyboard (external)	DELL	SK-8115	--
Mouse	HP	--	RK679PA#AB2
Monitor (external)	ViewSonic	VLCDS23585-1W	90S040201520
Printer	HP	6L	JPZT102346
Ethernet router	D-Link	DES-1008D	DRE9158000047

Radiated Emission Test Setup (3 m diatance)



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Date: 2010-12-09

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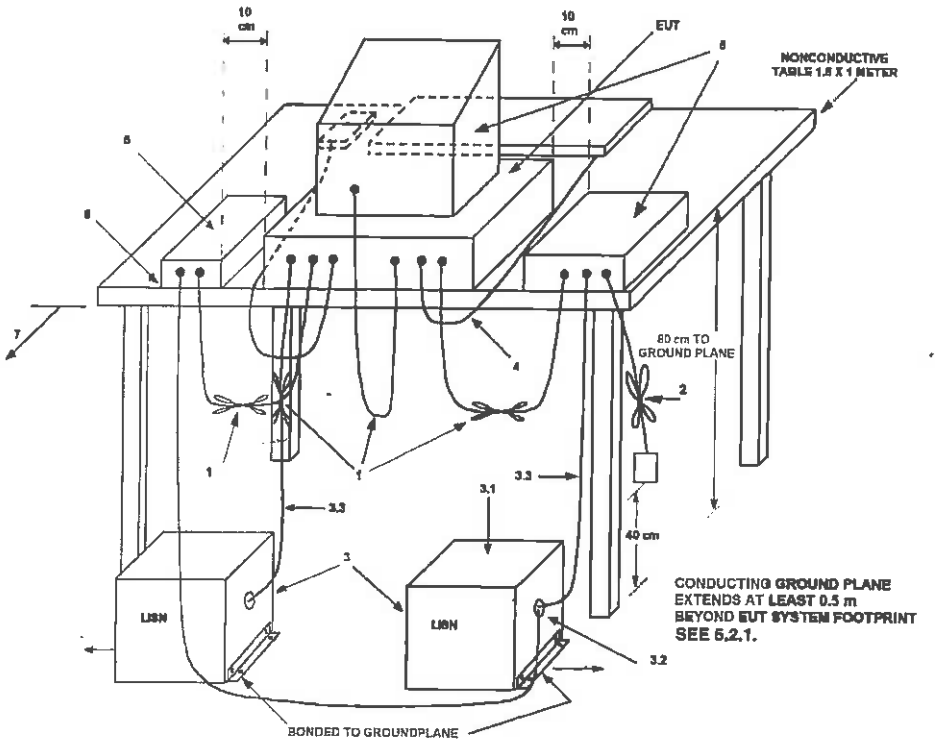
Conducted Emission Test Setup



LEGEND:

1) Interconnecting cables that hang closer than 40 cm to the groundplane shall be folded back and forth in the center forming a bundle 30 to 40 cm long (see 6.1.4 and 11.2.4).
2) I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m (see 6.1.4).
3) EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω. LISN can be placed on top of, or immediately beneath, reference groundplane (see 5.2.3 and 7.2.1).
   3.1) All other equipment powered from additional LISN(s).
   3.2) Multiple outlet strip can be used for multiple power cords of non-EUT equipment.
   3.3) LISN at least 80 cm from nearest part of EUT chassis.
4) Cables of hand-operated devices, such as keyboards, mice, etc., shall be placed as for normal use (See 6.2.1.3 and 11.2.4).
5) Non-EUT components of EUT system being tested (see also Figure 13).
6) Rear of EUT, including peripherals, shall all be aligned and flush with rear of tabletop (see 6.2.1.1 and 6.2.1.2).
7) Rear of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the groundplane (see 5.2.2 for options).

Test Procedure

Radiated Emission :

The EUT was tested according to ANSI 63.4-2003 for the requirements of FCC Part 15 Subpart B Section 15.109.

During the test, the sample was placed on a turn table and operated with supply at rated AC voltage (i.e AC120V 60Hz) to the AC/DC adaptor. The sample was operated under record playing mode and the playing signal was recorded to the host computer. The table is 0.8 meter above the reference ground plane on the Test Site and can rotate 360 degrees to determine the position of the maximum emission level. Broad-band antennas for the frequency range 30 - 1000 MHz, connected with 10 meters coaxial cable to the test receiver was used for measurement. The antenna is capable of measuring both horizontal and vertical polarizations. The antenna was raised from 1 to 4 meters to find out the maximum emission level from the EUT.

The computer system included a notebook computer, an external keyboard, a mouse, an external monitor, a printer and an ethernet router was connected to the sample during the test.

An initial pre-scan was performed to find out the maximum emission level of the sample placed at 3 orthogonal planes. Final measurement was then performed to record the data for the emissions under worst-case condition for combination of the antenna orientation / height and turn table position.

Note : The Open Aera Test Site located at IECC was placed on file with the FCC Pursuant to Section 2.948 of the FCC Rules (FCC Registration No. : 97774).

Conducted Emission :

For Class B Computing Device Peripheral :

The EUT was tested according to ANSI 63.4-2003 for the requirements of FCC Part 15 Subpart B Section 15.107.

During the test, the sample was placed on a wooden table and operated with supply at rated AC voltage (i.e AC120V 60Hz) via the LISN to the AC/DC adaptor. The sample was operated under record playing mode and the playing signal was recorded to the host computer. The table is 0.8 meter above the floor. The LISN was connected to the test receiver for conducted emission measurement (150kHz – 30MHz).

The computer system included a notebook computer, an external keyboard, a mouse, an external monitor, a printer and an ethernet router was connected to the sample during the test.

FCC – Test Report

Test Results

Radiated Emission :

Test Requirement:	FCC Part 15 Subpart B Section 15.109
Test Method:	ANSI C63.4 : 2003
Deviations from Standard Test Method:	Nil
Frequency Range:	30MHz – 1000MHz
Measurement Distance:	3 m
Class:	Class B
Detector:	Quasi-Peak

Refer to page 9-10 for measurement data.

Conducted Emission :

Test Requirement:	FCC Part 15 Subpart B Section 15.107
Test Method:	ANSI C63.4 : 2003
Deviations from Standard Test Method:	Nil
Frequency Range:	150kHz – 30MHz
Class:	Class B
Detector:	Quasi-Peak / Average

Refer to page 11 - 21 for measurement data.

IT 5/6

Date : 2010-12-09

Radiated Emission
Acc: FCC Part 15 Subpart B (15.109) Class B

IECC Ref: 54812
Model: L-79
Applicant: EVER SHINING TECHNICAL MANUFACTURING LIMITED
Ser.Nr.: --
Set under test: USB Turntable
Operating mode: Playing record

Test Equipment
Receiver: Rohde & Schwarz ESCS 30
Antenna: Schaffner CBL6111C

Frequency (MHz)	Horz. Reading dB(μV)	Vert. Reading dB(μV)	Corr. Factor (dB)	Horiz. Test Result dB(μV/m)	Vert. Test Result dB(μV/m)	Limit dB(μV/m)
30	< 16.0	< 16.0	20.5	< 36.5	< 36.5	40.0
52	< 16.0	21.0	9.0	< 25.0	30.0	40.0
70	< 16.0	< 16.0	9.1	< 25.1	< 25.1	40.0
130	< 16.0	< 16.0	13.3	< 29.3	< 29.3	43.5
200	< 16.0	< 16.0	10.9	< 26.9	< 26.9	43.5
300	< 16.0	< 16.0	15.8	< 31.8	< 31.8	46.0
500	< 16.0	< 16.0	20.6	< 36.6	< 36.6	46.0
1000	< 16.0	< 16.0	28.0	< 44.0	< 44.0	54.0

The measurement results indicate that the test unit meets the FCC requirements.

Note :
1. The above measured data are in Quasi-Peak values.
2. The above results were the worst case results with the sample placed normally on the table for different turned angles during the test.

Operator : WH

IT 5/6

Date : 2010-12-09

Radiated Emission
Acc: FCC Part 15 Subpart B (15.109) Class B

IECC Ref: 54812
Model: L-79
Applicant: EVER SHINING TECHNICAL MANUFACTURING LIMITED
Ser.Nr.: --
Set under test: USB Turntable
Operating mode: Data Transfer (Recording record playing signal to computer)

Test Equipment
Receiver: Rohde & Schwarz ESCS 30
Antenna: Schaffner CBL6111C

Frequency (MHz)	Horz. Reading dB(μV)	Vert. Reading dB(μV)	Corr. Factor (dB)	Horiz. Test Result dB(μV/m)	Vert. Test Result dB(μV/m)	Limit dB(μV/m)
30	< 16.0	< 16.0	20.5	< 36.5	< 36.5	40.0
47.99	< 16.0	21.5	10.7	< 26.7	32.2	40.0
50	< 16.0	21.0	9.3	< 25.3	30.3	40.0
86	< 16.0	< 16.0	10.8	< 26.8	< 26.8	40.0
120	< 16.0	< 16.0	13.6	< 29.6	< 29.6	43.5
132	< 16.0	< 16.0	13.2	< 29.2	< 29.2	43.5
140	< 16.0	< 16.0	12.9	< 28.9	< 28.9	43.5
300	< 16.0	< 16.0	15.8	< 31.8	< 31.8	46.0
500	< 16.0	< 16.0	20.6	< 36.6	< 36.6	46.0
1000	< 16.0	< 16.0	28.0	< 44.0	< 44.0	54.0

The measurement results indicate that the test unit meets the FCC requirements.

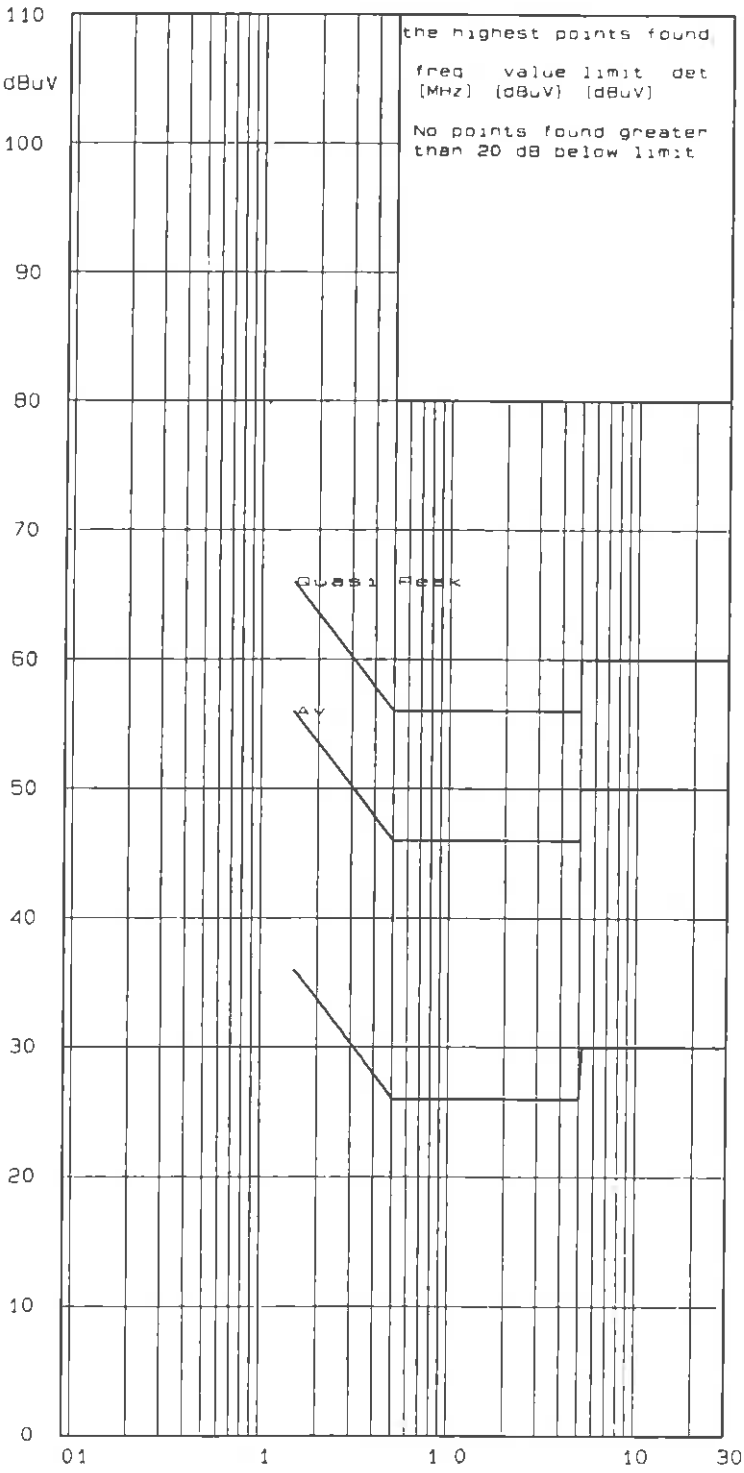
Note :
1. The above measured data are in Quasi-Peak values.
2. The above results were the worst case results with the sample placed normally on the table for different turned angles during the test.

Operator : WH

U 5/6

Interference Voltage 150 KHz - 30 MHz

acc. FCC PART 15 Subpart B Section 15.107(a) Class B



Ref -No.. 54812

Product : USB TURNTABLE

Sample . 01

Date . 24 Nov 2010

Test equipment:

Rohde & Schwarz ESHS30

Schwarzbeck NSLK8127

Connected sets:

--

Operating mode:

PHONO PLAYING
(L)
--

RFI suppression parts
--

* two dB safety margin for type approval necessary

Operator KT

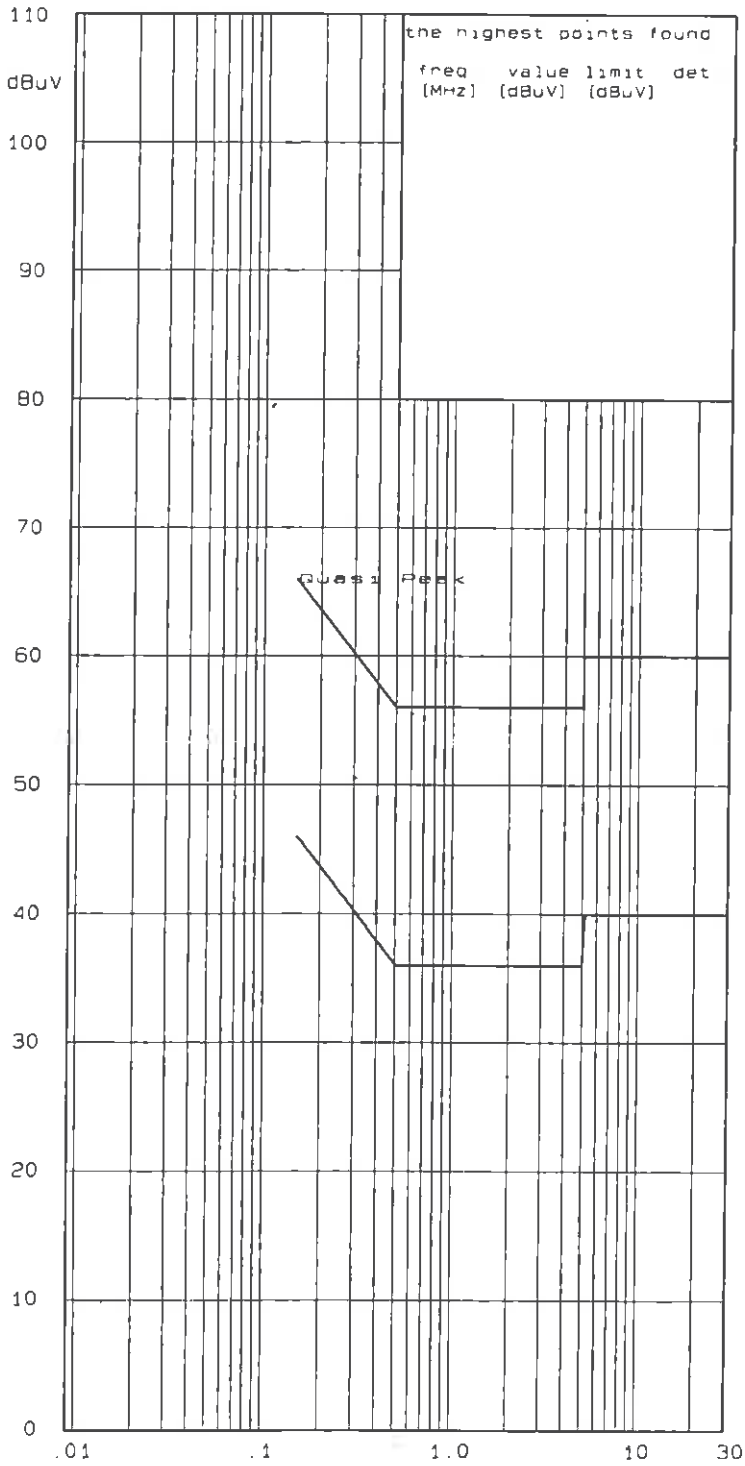
Result : pass [X] fail [ ]

IECC

U 5/6

Interference Voltage 150 KHz - 30 MHz

acc. FCC PART 15 Subpart B Section 15.107(a) Class B



Ref -No.: 54812

Product : USB TURNTABLE

Sample : 01

Date : 24 Nov 2010

Test equipment:

Rohde & Schwarz ESHS30

Schwarzbeck NSLK8127

Connected sets:

--

Operating mode:

PHONO PLAYING
(N)
--

RFI suppression parts:

--

* two dB safety margin for type approval necessary

Operator: KT

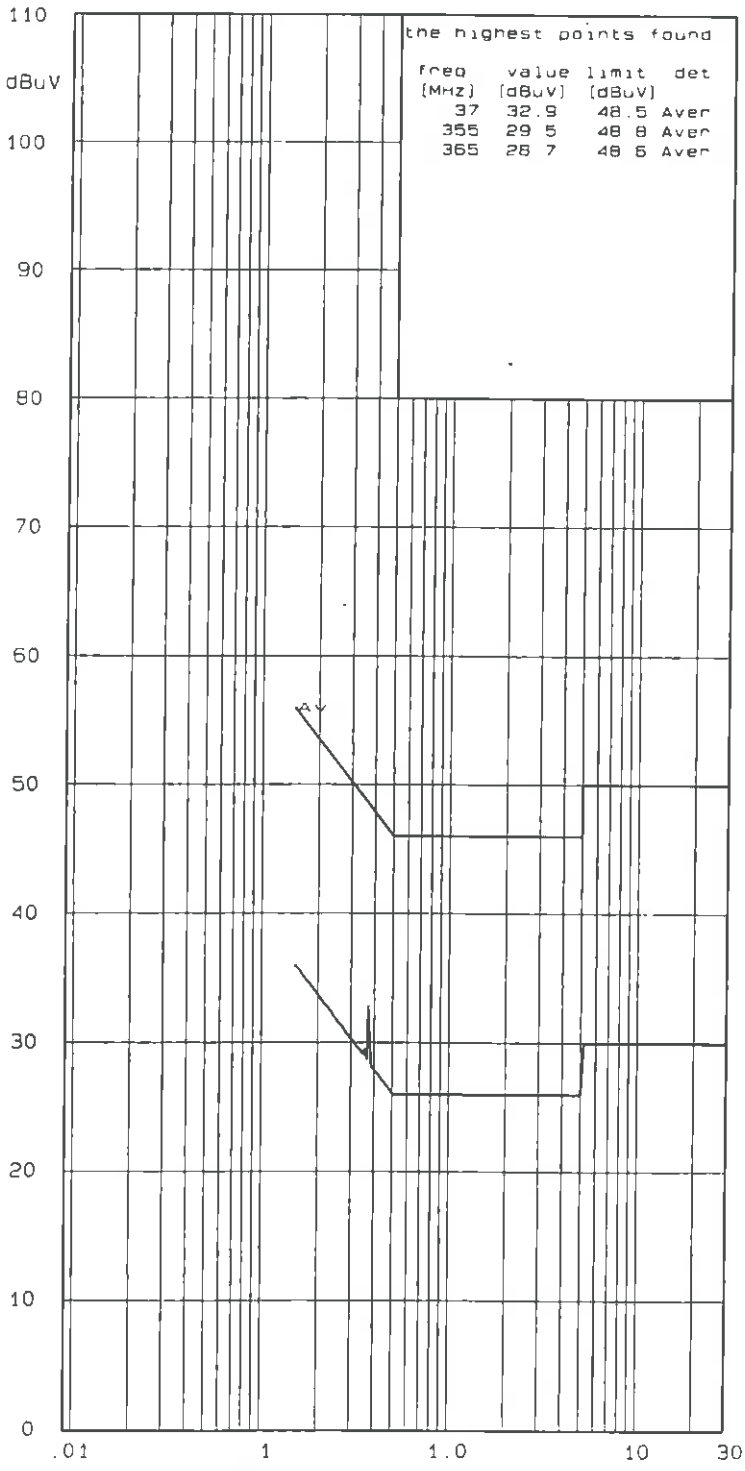
Result : pass [X] fail [ ]

IECC

U 5/6

Interference Voltage 150 KHz - 30 MHz

acc. FCC PART 15 Subpart B Section 15.107(a) Class B



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Test equipment:

Rohde & Schwarz ESHS30

Schwarzbeck NSLK8127

Connected sets:

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Operating mode:

PHONO PLAYING
(N)
--

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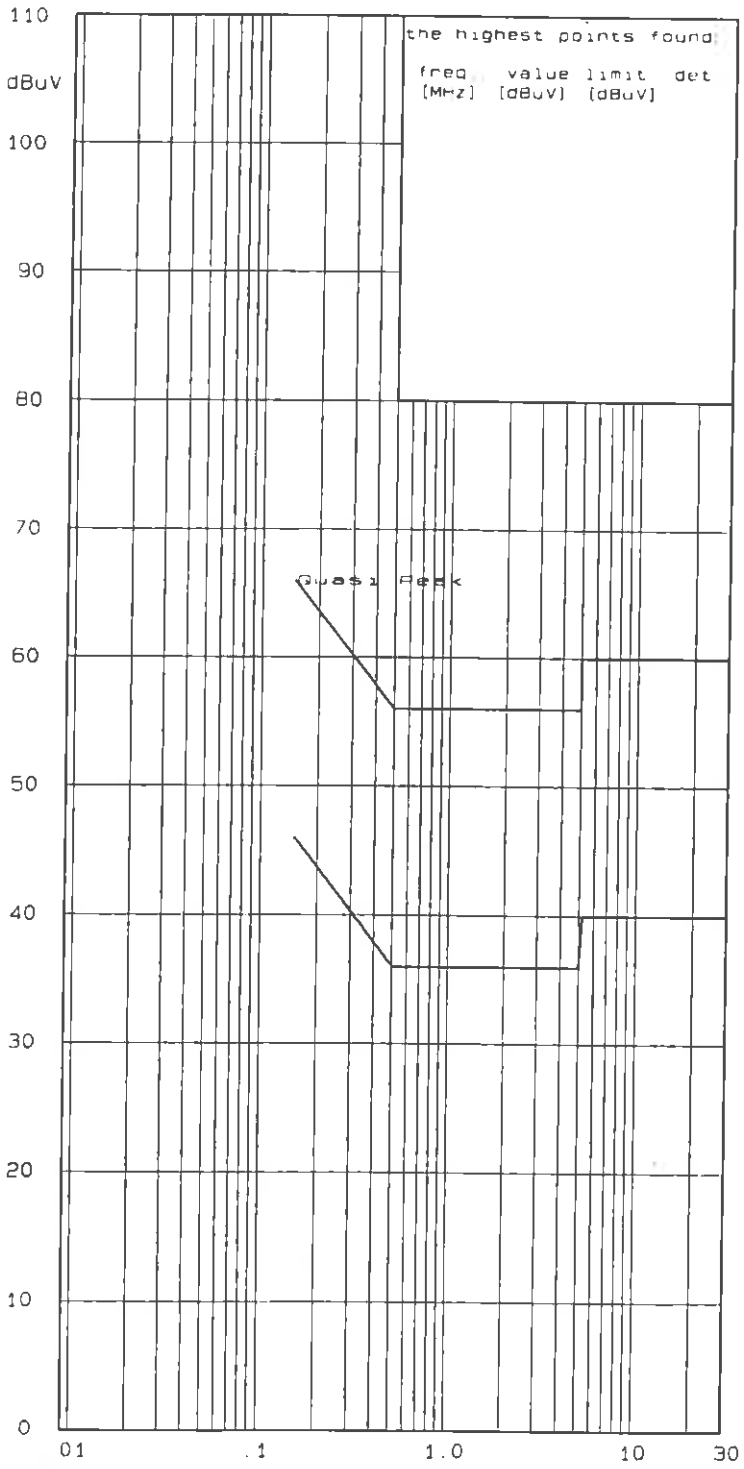
IECC

U 5/6

Interference Voltage 150 KHz - 30 MHz

acc. FCC PART 15 Subpart B Section 15.107(a) Class B



Ref.-No.: 54812

Product : USB TURNTABLE

Sample : 01

Date : 24 Nov 2010

Test equipment:

Rohde & Schwarz ESHS30

Schwarzbeck NSLK8127

Connected sets:

--

Operating mode:

USB RECORD TO COMPUTER
TEST W/ REFERENCE COMPUTER
MAIN UNIT
(L)

RFI suppression parts.

--

* two dB safety margin for type approval necessary

Operator: KT

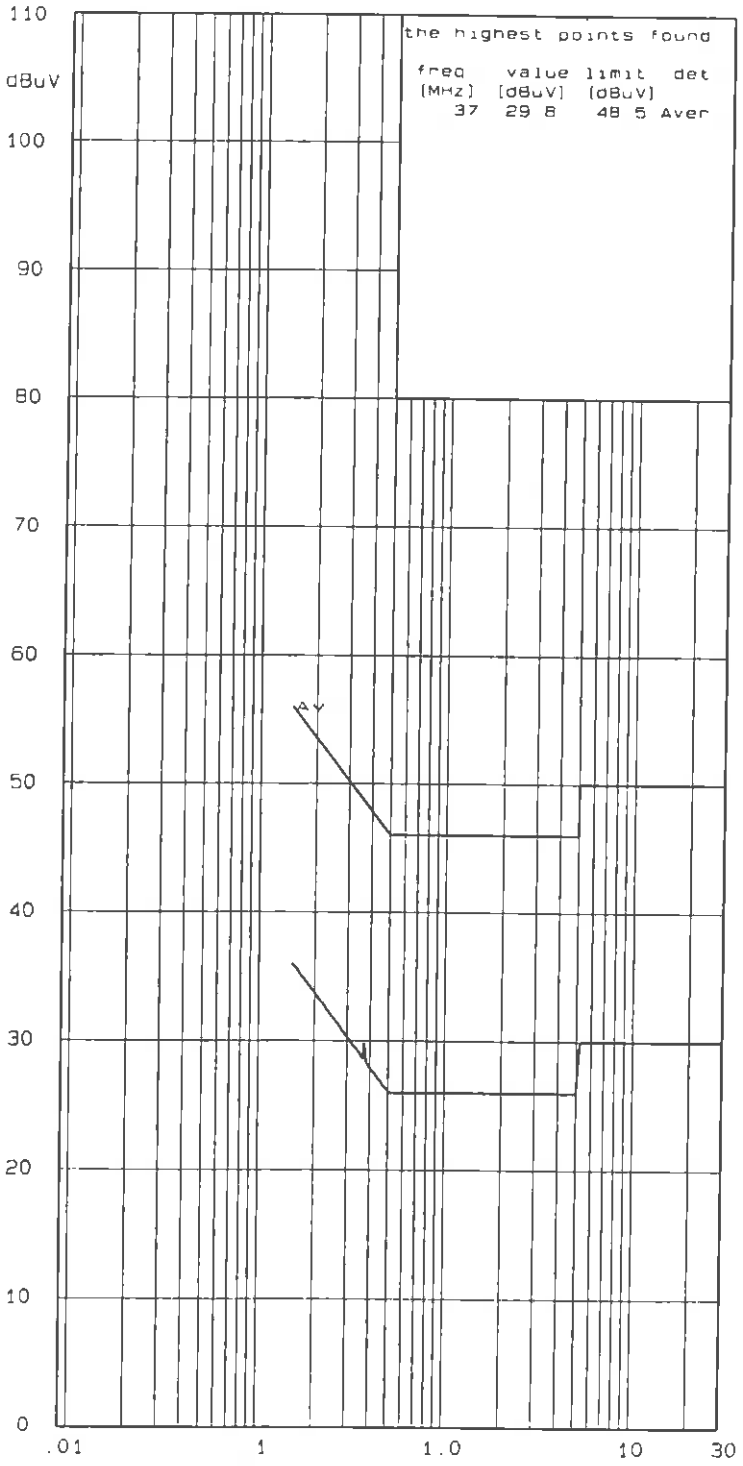
Result : pass [X] fail [ ]

IECC

U 5/6

Interference Voltage 150 KHz - 30 MHz

acc. FCC PART 15 Subpart B Section 15.107(a) Class B



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Test equipment:

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Schwarzbeck NSLK8127

Connected sets:

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Operating mode:

USB RECORD TO COMPUTER
TEST W/ REFERENCE COMPUTER
MAIN UNIT
(L)

RFI suppression parts:
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Result : pass [X] fail [ ]

IECC

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Interference Voltage 150 KHz - 30 MHz

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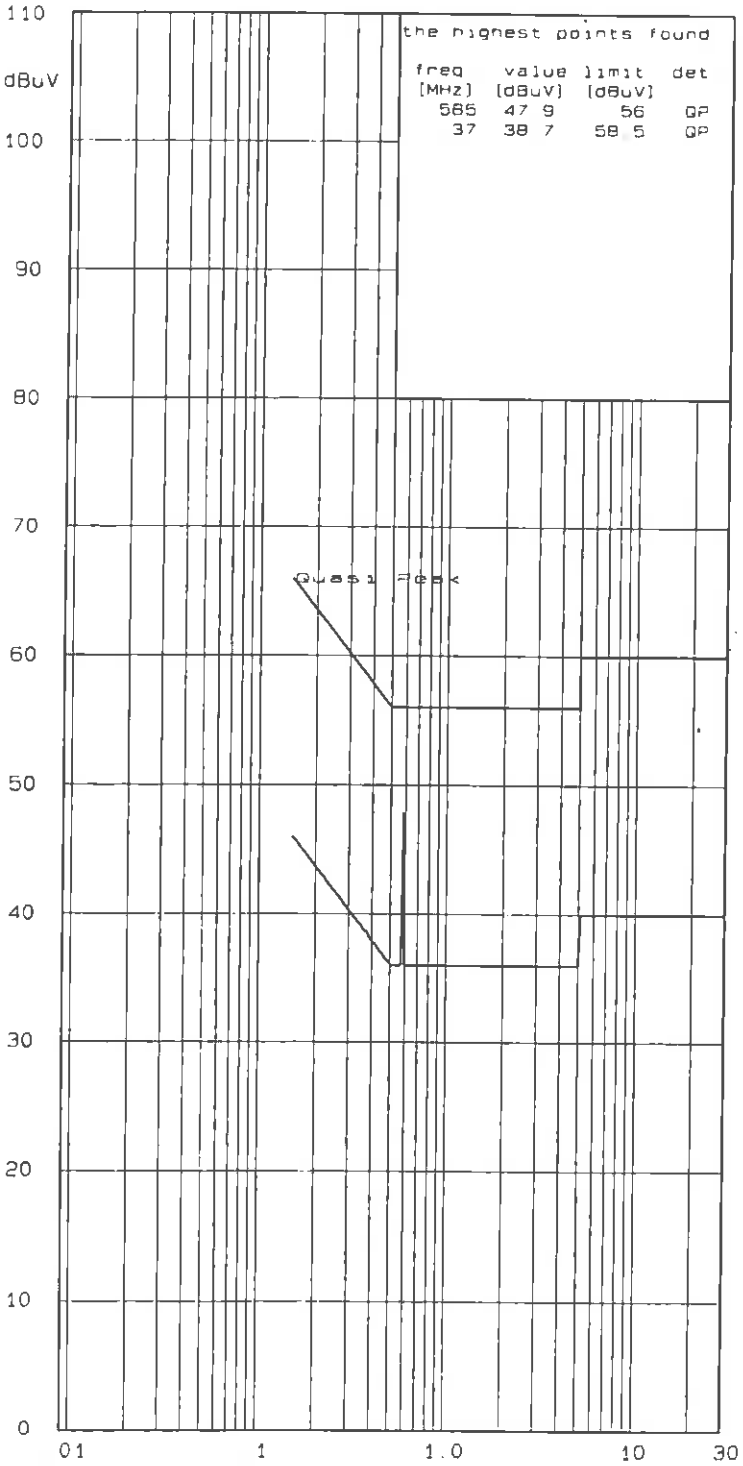

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Schwarzbeck NSLK8127

Connected sets:

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Operating mode:

USB RECORD TO COMPUTER
TEST W/ REFERENCE COMPUTER
MAIN UNIT
(N)

RFI suppression parts

--

* two dB safety margin for type approval necessary

Operator: KT

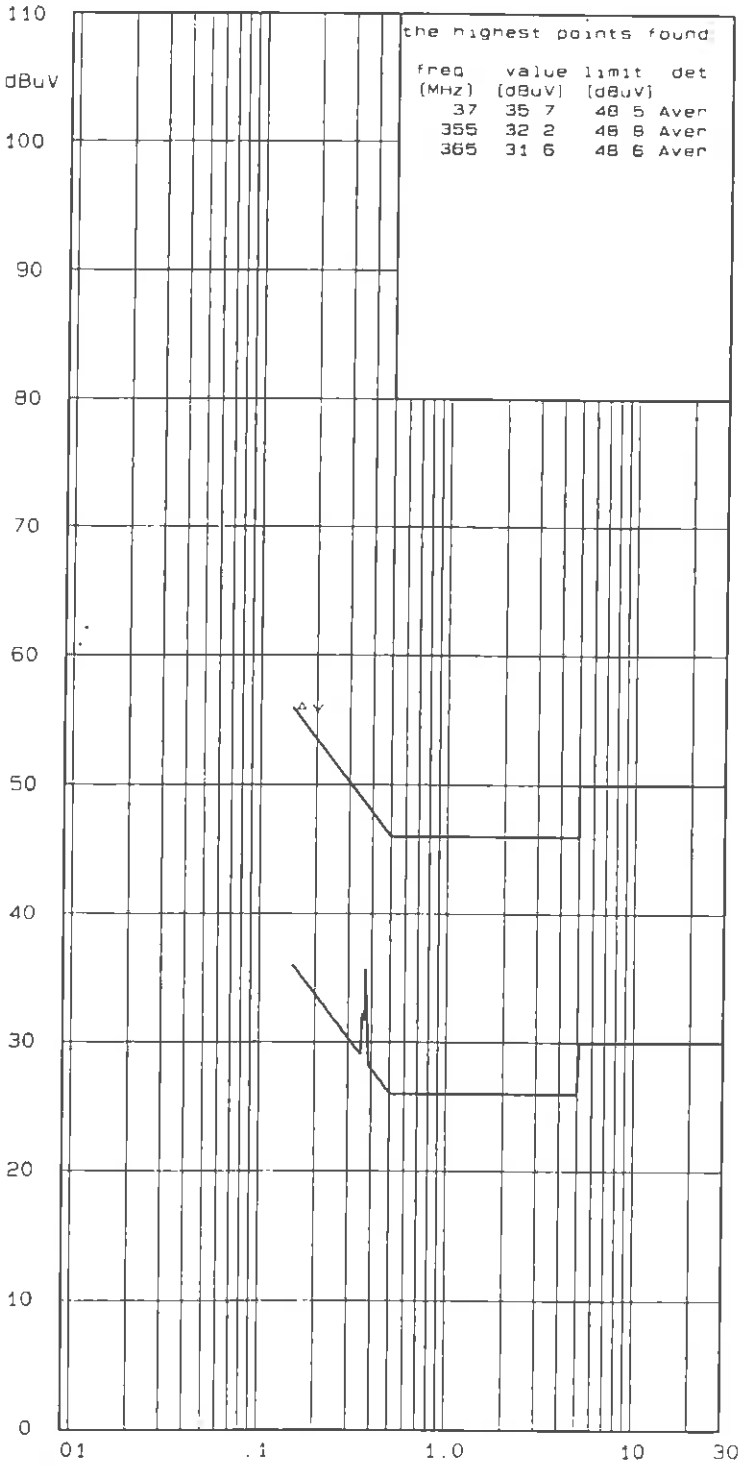
Result : pass [X] fail [ ]

IECC

U 5/6

Interference Voltage 150 KHz - 30 MHz

acc. FCC PART 15 Subpart B Section 15.107(a) Class B



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Product : USB TURNTABLE

Sample : 01

Date : 24 Nov 2010

Test equipment:

Rohde & Schwarz ESHS30

Schwarzbeck NSLK8127

Connected sets:

--

Operating mode:

USB RECORD TO COMPUTER
TEST W/ REFERENCE COMPUTER
MAIN UNIT
(N)

RFI suppression parts.

--

* two dB safety margin for type approval necessary

Operator KT

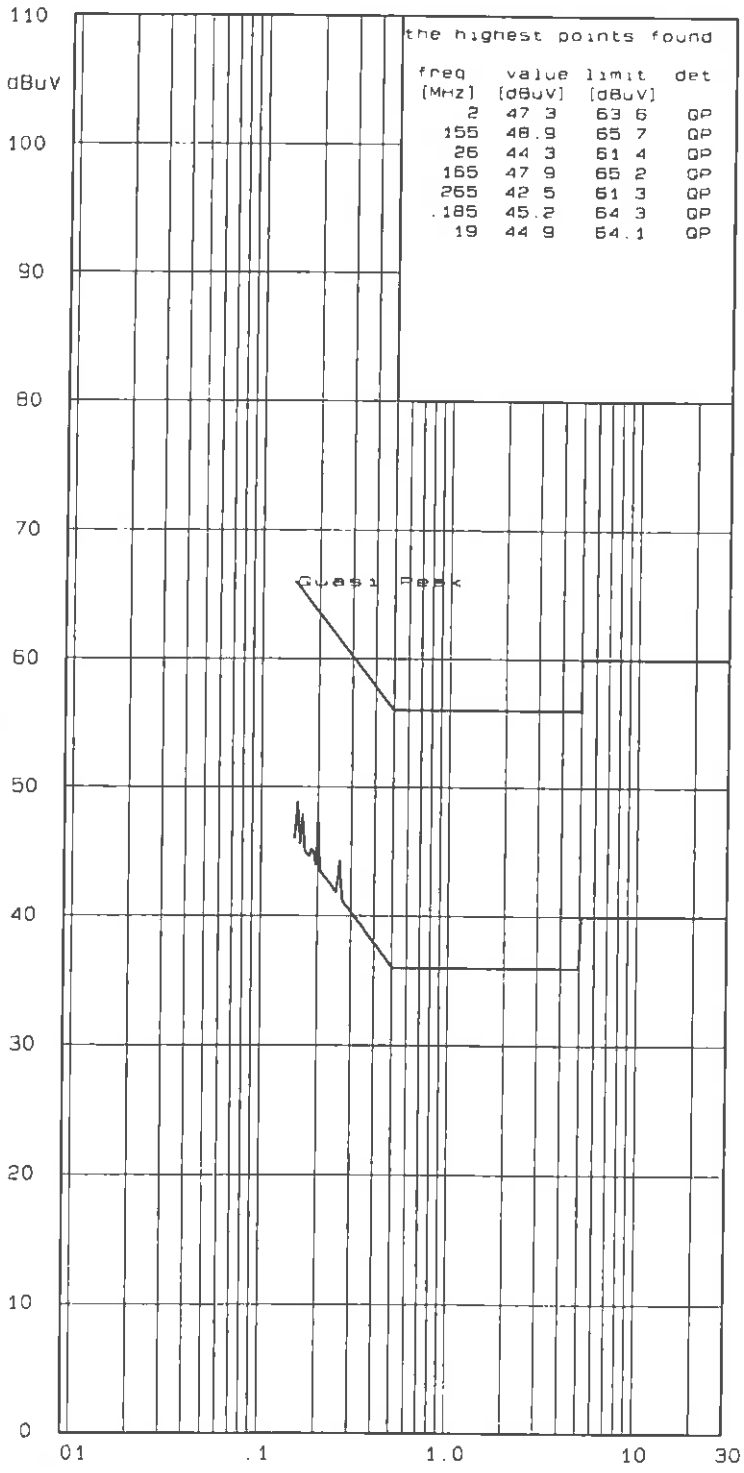
Result : pass [X] fail [ ]

IECC

U 5/6

Interference Voltage 150 KHz - 30 MHz

acc. FCC PART 15 Subpart B Section 15.107(a) Class B



the highest points found

freq [MHz]	value [dBuV]	limit [dBuV]	det
2	47 3	63 6	QP
155	48.9	65 7	QP
26	44 3	61 4	QP
165	47 9	65 2	QP
265	42 5	61 3	QP
.185	45.2	64 3	QP
19	44 9	64.1	QP

Ref.-No.: 54812

Product : USB TURNTABLE

Sample : 01

Date : 24 Nov 2010

Test equipment:

Rohde & Schwarz ESHS30

Schwarzbeck NSLK8127

Connected sets:

--

Operating mode:

USB RECORD TO COMPUTER
TEST W/ REFERENCE COMPUTER
COMPUTER UNIT
(L)

RFI suppression parts:

--

* two dB safety margin for type approval necessary

Operator: KT

Result : pass [X] fail [ ]

IECC

U 5/6

Interference Voltage 150 KHz - 30 MHz

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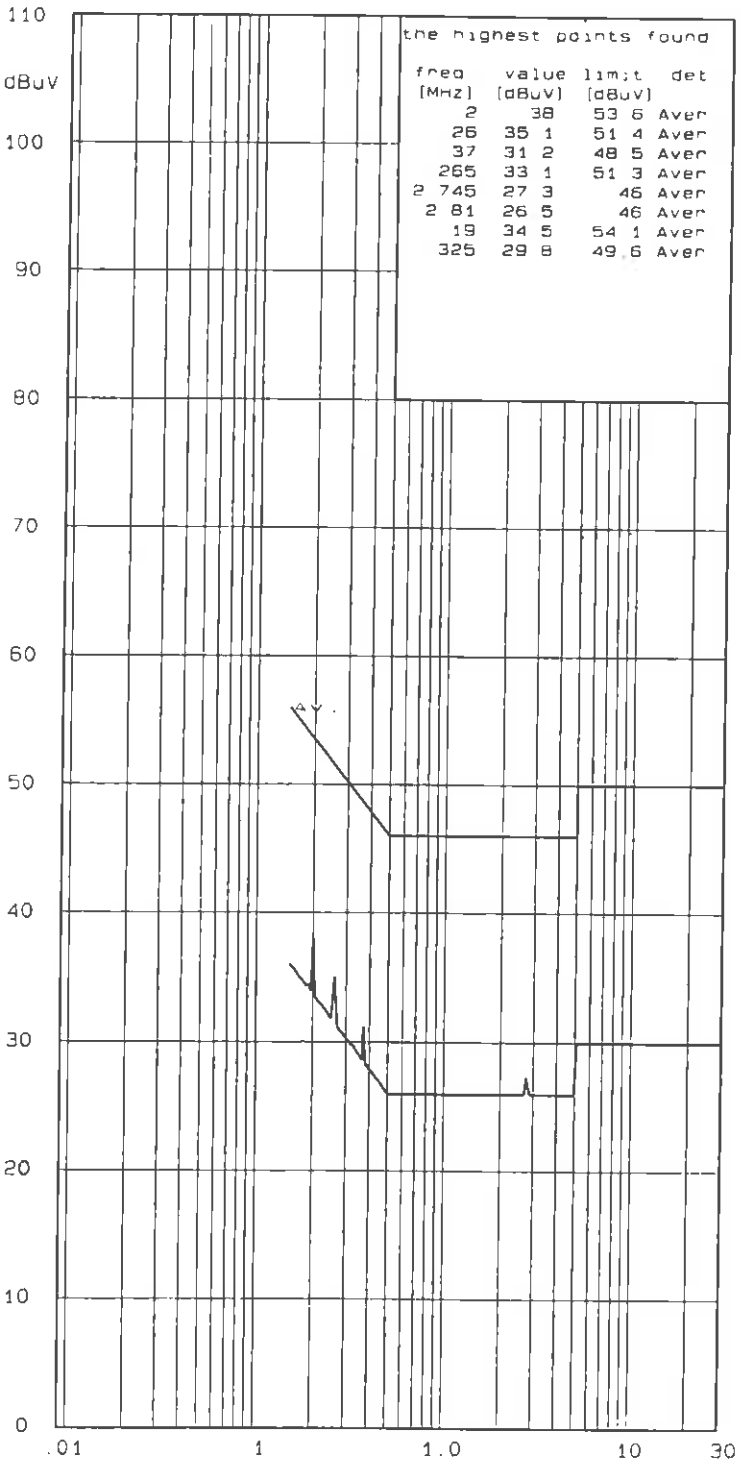

the highest points found

freq [MHz]	value [dBuV]	limit [dBuV]	det
2	38	53 6	Aver
26	35 1	51 4	Aver
37	31 2	48 5	Aver
265	33 1	51 3	Aver
2 745	27 3	46	Aver
2 81	26 5	46	Aver
19	34 5	54 1	Aver
325	29 8	49 6	Aver

Ref -No.: 54812

Product : USB TURNTABLE

Sample : 01

Date : 24 Nov 2010

Test equipment:

Rohde & Schwarz ESHS30

Schwarzbeck NSLK8127

Connected sets:

--

Operating mode.

USB RECORD TO COMPUTER
TEST W/ REFERENCE COMPUTER
COMPUTER UNIT
(L)

RFI suppression parts.

--

* two dB safety margin for type approval necessary

Operator: KT

Result : pass [X] fail [ ]

IECC

U 5/6

Interference Voltage 150 KHz - 30 MHz

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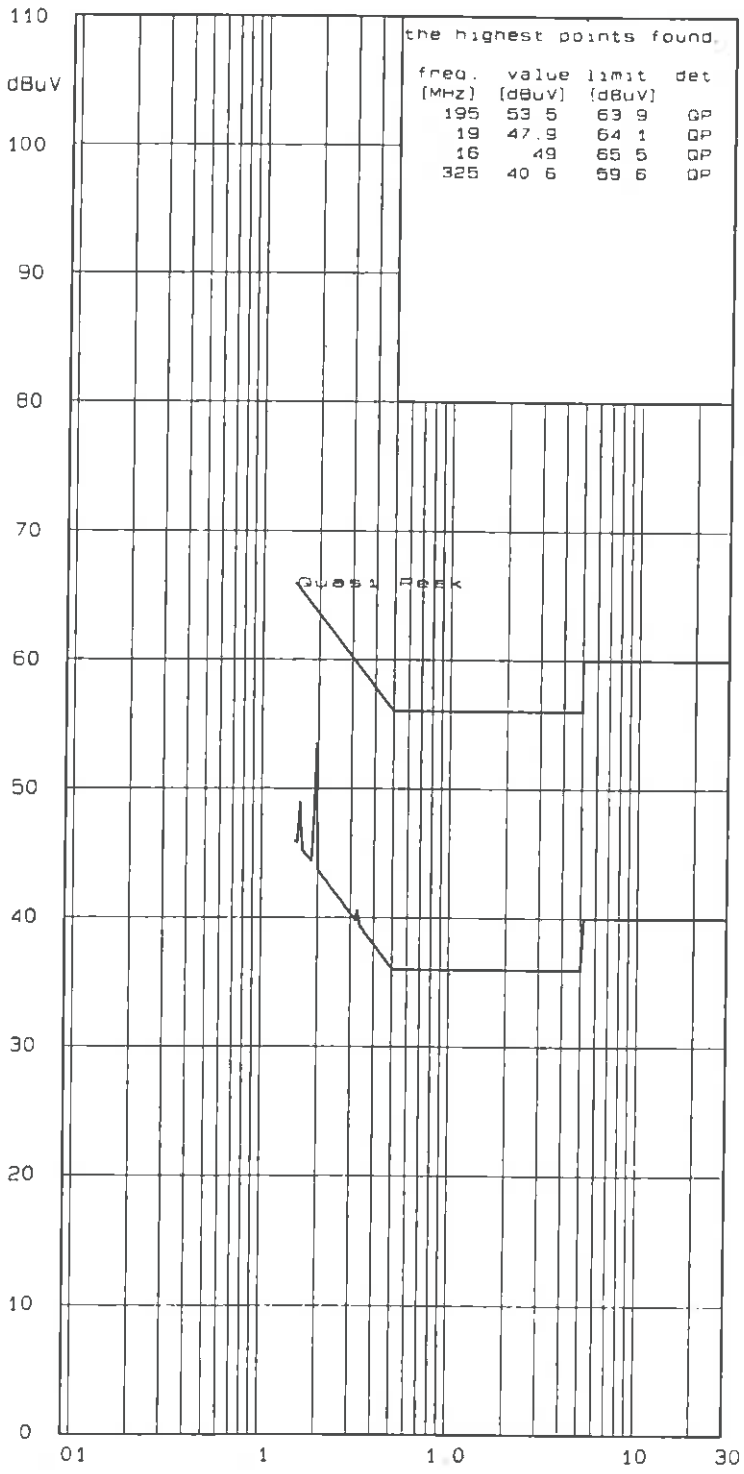

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Test equipment:

Rohde & Schwarz ESHS30

Schwarzbeck NSLK8127

Connected sets:

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Operating mode.

USB RECORD TO COMPUTER
TEST W/ REFERENCE COMPUTER
COMPUTER UNIT
(N)

RFI suppression parts:

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* two dB safety margin for type approval necessary

Operator: KT

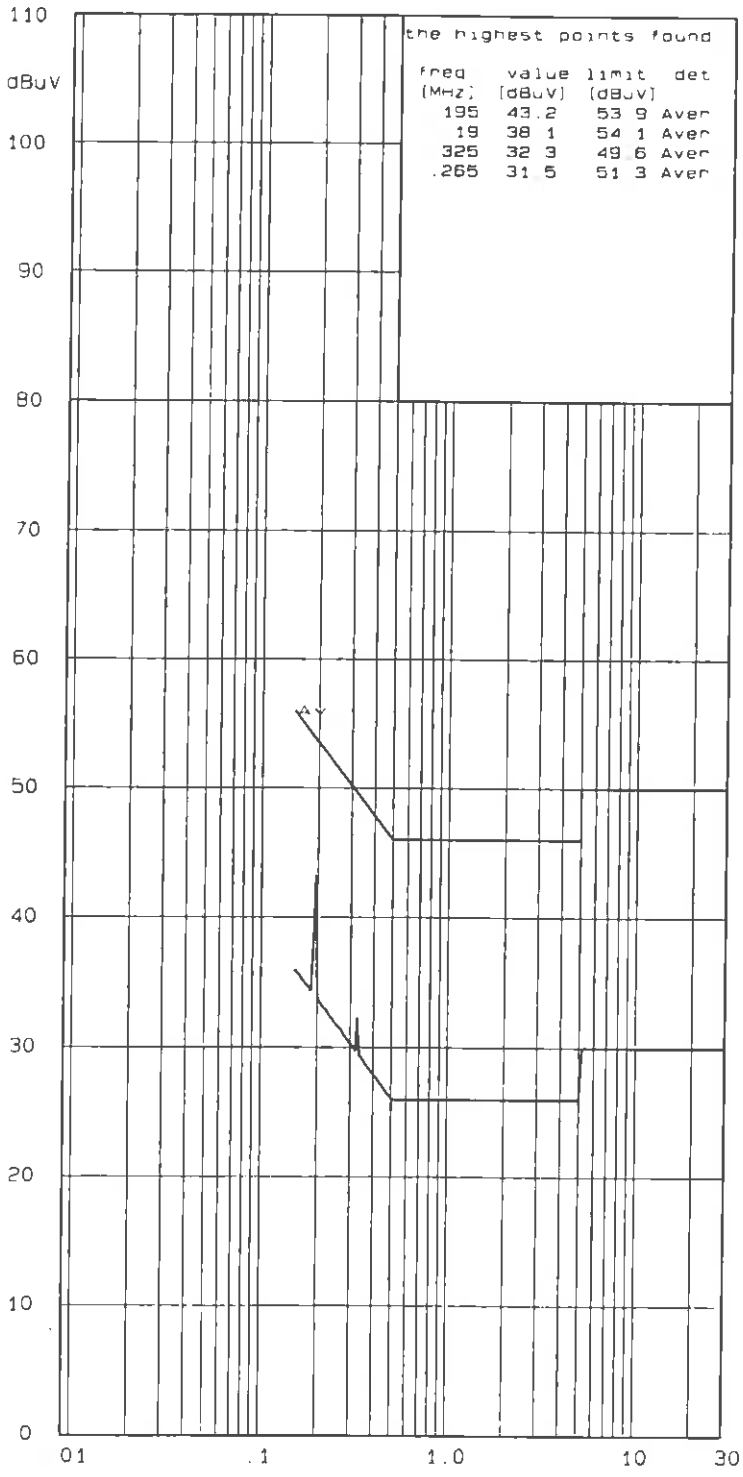
Result : pass [X] fail [ ]

IECC

U 5/6

Interference Voltage 150 KHz - 30 MHz

acc. FCC PART 15 Subpart B Section 15.107(a) Class B



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Test equipment:

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USB RECORD TO COMPUTER
TEST W/ REFERENCE COMPUTER
COMPUTER UNIT
(N)

RFI suppression parts:

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* two dB safety margin for type approval necessary

Operator: KT

Result : pass [X] fail [ ]

IECC

FCC – Test Report

Date: 2010-12-09

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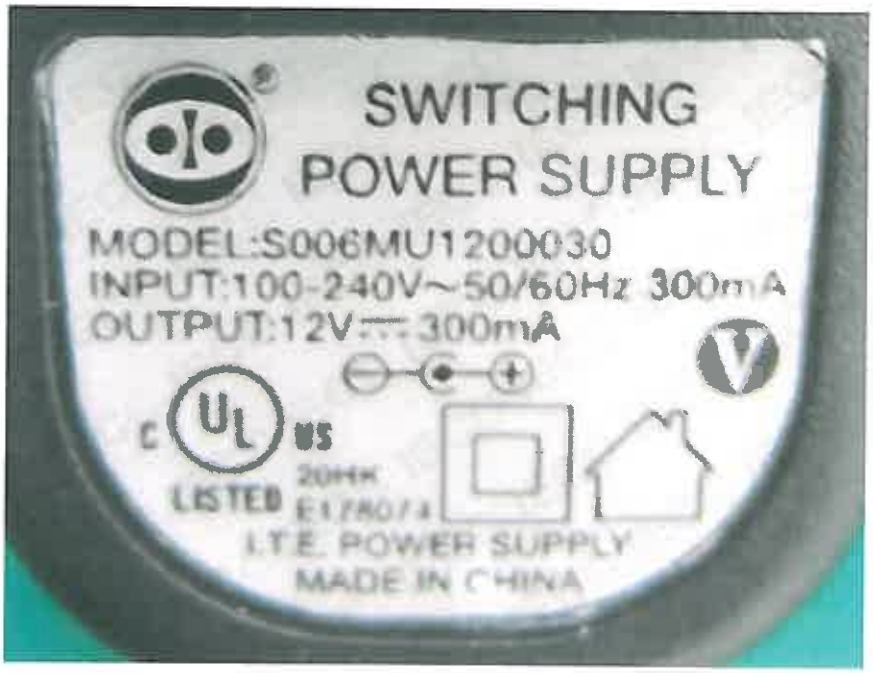
Photo of Sample

Sample Outlook



AC/DC Adaptor – Rating Plate

Address 地址 Units 602-605, 6/F., 31 Lok Yip Rd., On Lok Tsuen, Fanling, N.T., Hong Kong
香港新界粉嶺安樂村樂業路31號6樓602-605室
China 中國: IECC (Guangzhou) Services Co., Ltd. 廣州時並進技術服務有限公司
Address 地址 Flat A, 2/F., Block 3, 56 Shuiyin Road, Guangzhou, P.R. of China.
廣州市水蔭路56號3棟2A室 Postcode 郵政編號 510075
Tel 電話 (852) 2305 2570
Fax 傳真 (852) 2756 4480
E-mail 電子郵件 info@iecc.com.hk
Home Page 網頁 http://www.iecc.com.hk
Tel 電話 (86-20) 8768 4838
Fax 傳真 (86-20) 8768 3918
E-mail 電子郵件 info@iecc.net.cn
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