

# F C C - TEST REPORT

REPORT NO.: 50639

**FCC – Test Report****No. 50639**

Date: 2008-08-15

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**FCC listed testlab  
acc. to Section 2.948 of the FCC - Rules****in compliance with the requirements of  
ANSI C63.4 - 2003****Product** : Turntable with USB**Product Class** : Class B Computing Device Peripheral**Brand Name** : CROSLEY**Model** : CR249**Applicant** : HONG KONG MODERN MARKETING  
MANUFACTURING LIMITED**FCC ID No.** : S4W249

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**LABORATORY - REPORT**

**APPLICANT:** HONG KONG MODERN MARKETING MANUFACTURING LIMITED  
**ADDRESS:** Room 1024, 10/F, Beverley Commercial Centre  
87-105 Chatham Road, TST  
Kowloon  
Hong Kong

**DATE OF SAMPLE RECEIVED:** 2008-07-02  
**DATE OF TESTING:** 2008-07-09 to 2008-07-30

**DESCRIPTION OF SAMPLE:**

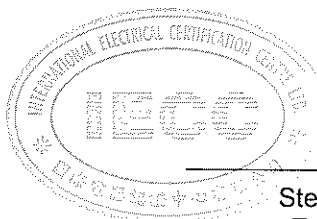
Product: Turntable with USB  
Product class: Class B Computing Device Peripheral  
Brand name: CROSLEY  
Model no.: CR249  
FCC ID number: S4W249  
Rating: AC/DC adaptor : RGD41120500, Input : AC 120V 60Hz;  
Output : DC 12V

**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.



Stephen C.N. Wong  
Technical Manager

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### Test Location

International Electrical Certification Centre Ltd.  
Unit 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

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## TEST EQUIPMENT LIST

Equipment	Manufacturer	Model	Serial No.	Last Calibration Date	Next Calibration Date
Test Receiver	Rohde & Schwarz	ESCS 30	828525/006	30/11/2007	29/11/2008
Test Receiver	Rohde & Schwarz	ESHS 30	839667/002	22/10/2007	21/10/2008
Artificial Mains Network (LISN)	Schwarzbeck	NSLK 8127	8127312	02/11/2007	01/11/2008
Antenna	Schaffner	CBL6111C	2791	22/07/2008	21/07/2010
Antenna Mast System	Schwarzbeck	AM9104	--	--	--
Turntable with Controller	Drehtisch	DT312	--	--	--

## 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	C3990A	JPZT142121
Ethernet router	SURECOM	XZ840919T	6K03634

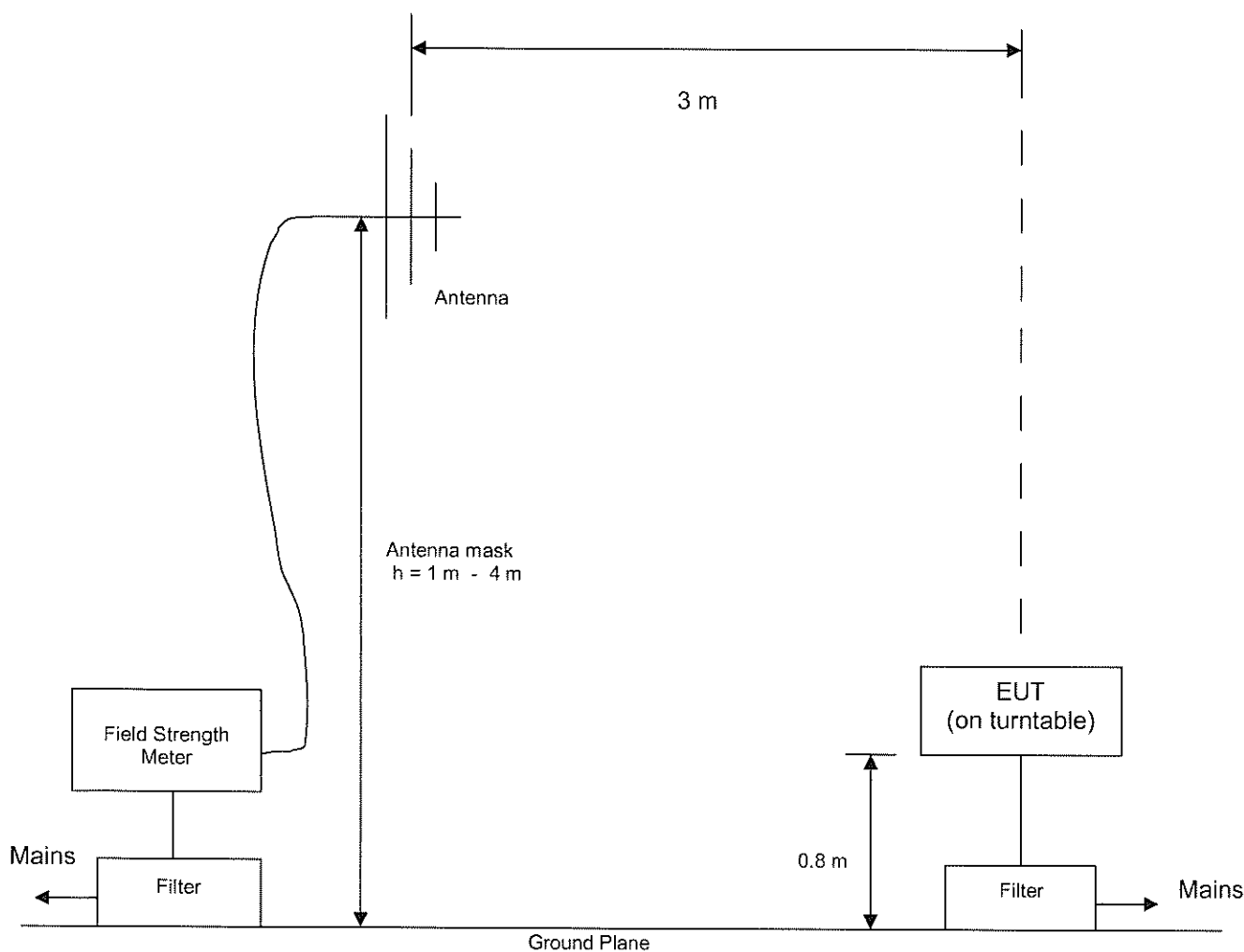
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### Radiated Emission Test Setup (3 m distance) (> 30MHz)



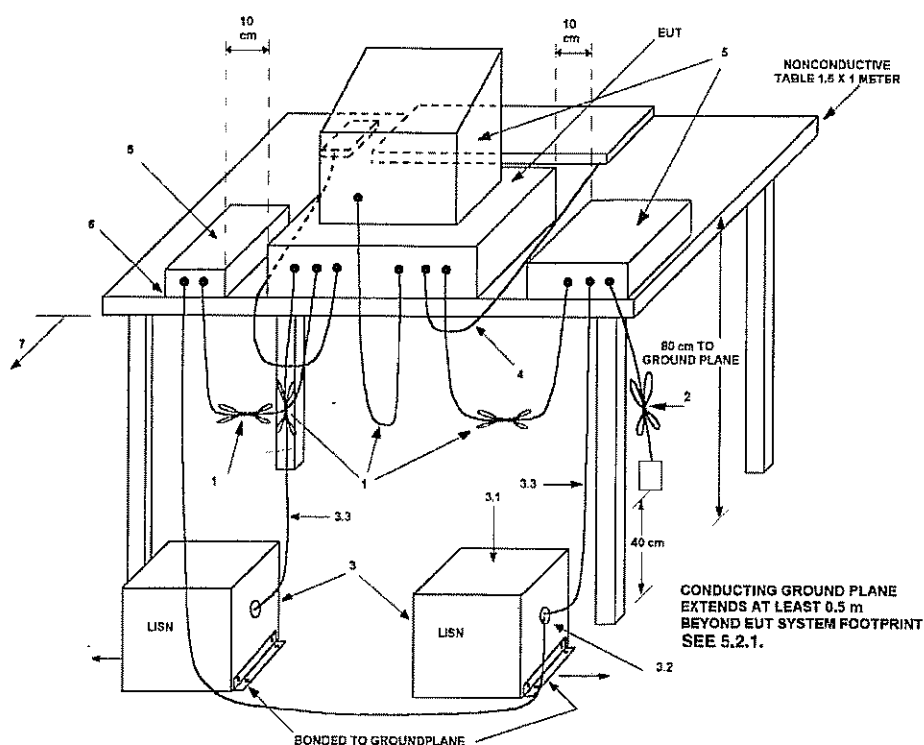
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### Conducted Emission Test Setup



#### 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  $\Omega$ . 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).



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**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 under various modes with supply at rated AC voltage (i.e AC120V 60Hz) to the AC/DC adaptor. 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. The table is 0.8 meter above the reference ground plane on the Open Area Test Site and can rotate 360 degrees to determine the position of the maximum emission level. A broad-band antenna 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.

During the test, under the data transfer mode, the sample was playing a record and the signal was recorded in the host notebook computer via the USB connection.

An initial pre-scan was performed to find out the maximum emission level of the sample placed at 3 orthogonal planes. Final measurement (30 MHz – 1000 MHz) 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 Area 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 :**

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

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**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 11 - 13 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 14 - 21 for measurement data.

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Radiated Emission

Acc: FCC Part 15 Subpart B (15.109)

IECC Ref: 50639

Model: CR249

Applicant: MODERN MARKETING MANUFACTURING LIMITED

Ser.Nr.: --

Set under test: Turntable with USB

Connected sets: -

Operating mode: Transfer the playing record signal to the host computer

Test Equipment

Receiver: Rohde &amp; 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	19.1	< 35.1	< 35.1	40.0
84	23.0	< 16.0	8.2	31.2	< 24.2	40.0
96	29.0	< 16.0	9.2	38.2	< 25.2	43.5
108	29.0	25.0	10.8	39.8	35.8	43.5
120	23.0	< 16.0	11.5	34.5	< 27.5	43.5
132	20.0	< 16.0	11.1	31.1	< 27.1	43.5
144	25.0	17.0	11.1	36.1	28.1	43.5
156	25.0	< 16.0	11.2	36.2	< 27.2	43.5
168	24.0	19.0	10.1	34.1	29.1	43.5
200	< 16.0	< 16.0	8.6	< 24.6	< 24.6	43.5
500	< 16.0	< 16.0	18.9	< 34.9	< 34.9	46.0
1000	< 16.0	< 16.0	26.2	< 42.2	< 42.2	54.0

The measurement results indicate that the test sample 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 positioned in all 3 axis during the test. During the measurement, the sample was placed normally on the table.

Operator : RT

## IT 5/6

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## Radiated Emission

Acc: FCC Part 15 Subpart B (15.109)

IECC Ref: 50639  
 Model: CR249  
 Applicant: MODERN MARKETING MANUFACTURING LIMITED

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

Ser.Nr.: --

Set under test: Turntable with USB  
 Connected sets: -  
 Operating mode: Playing record

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	19.1	< 35.1	< 35.1	40.0
50	< 16.0	< 16.0	7.7	< 23.7	< 23.7	40.0
100	< 16.0	< 16.0	9.5	< 25.5	< 25.5	43.5
200	< 16.0	< 16.0	8.6	< 24.6	< 24.6	43.5
300	< 16.0	< 16.0	14.2	< 30.2	< 30.2	46.0
500	< 16.0	< 16.0	18.9	< 34.9	< 34.9	46.0
700	< 16.0	< 16.0	22.3	< 38.3	< 38.3	46.0
1000	< 16.0	< 16.0	26.2	< 42.2	< 42.2	54.0

The measurement results indicate that the test sample 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 positioned in all 3 axis during the test. No significant emission was found from the sample at all positions.

Operator : RT

## IT 5/6

Date : 2008-08-15

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Radiated Emission

Acc: FCC Part 15 Subpart B (15.109)

IECC Ref: 50639  
 Model: CR249  
 Applicant: MODERN MARKETING MANUFACTURING LIMITED  
 Ser.Nr.: --  
 Set under test: Turntable with USB  
 Connected sets: -  
 Operating mode: Playing a MP3 audio signal via the AUX input from an external MP3 player (max. volume)

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	19.1	< 35.1	< 35.1	40.0
50	< 16.0	< 16.0	7.7	< 23.7	< 23.7	40.0
100	< 16.0	< 16.0	9.5	< 25.5	< 25.5	43.5
200	< 16.0	< 16.0	8.6	< 24.6	< 24.6	43.5
300	< 16.0	< 16.0	14.2	< 30.2	< 30.2	46.0
500	< 16.0	< 16.0	18.9	< 34.9	< 34.9	46.0
700	< 16.0	< 16.0	22.3	< 38.3	< 38.3	46.0
1000	< 16.0	< 16.0	26.2	< 42.2	< 42.2	54.0

The measurement results indicate that the test sample 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 positioned in all 3 axis during the test. No significant emission was found from the sample at all positions.

Operator : RT

IT 1 / 2

Interference Voltage 150 KHz - 30 MHz

acc. FCC PART 15 Class B (15.107)

Cabin 1

Model: CR249

Spl./Ser.No.: 01/--

Client : MODERN MARKETING

Product: TURNTABLE W/ USB

IECC-No.: 50639

Date: 09.07.08

Test equipment:

Rohde &amp; Schwarz ESHS-30

Schwarzbeck NSLK8127

Connected sets:

--

Operating mode:

DATA TRANSFER

(Playing a record and the signal  
is transferred to the host computer)  
(Line)

RFI suppression parts:

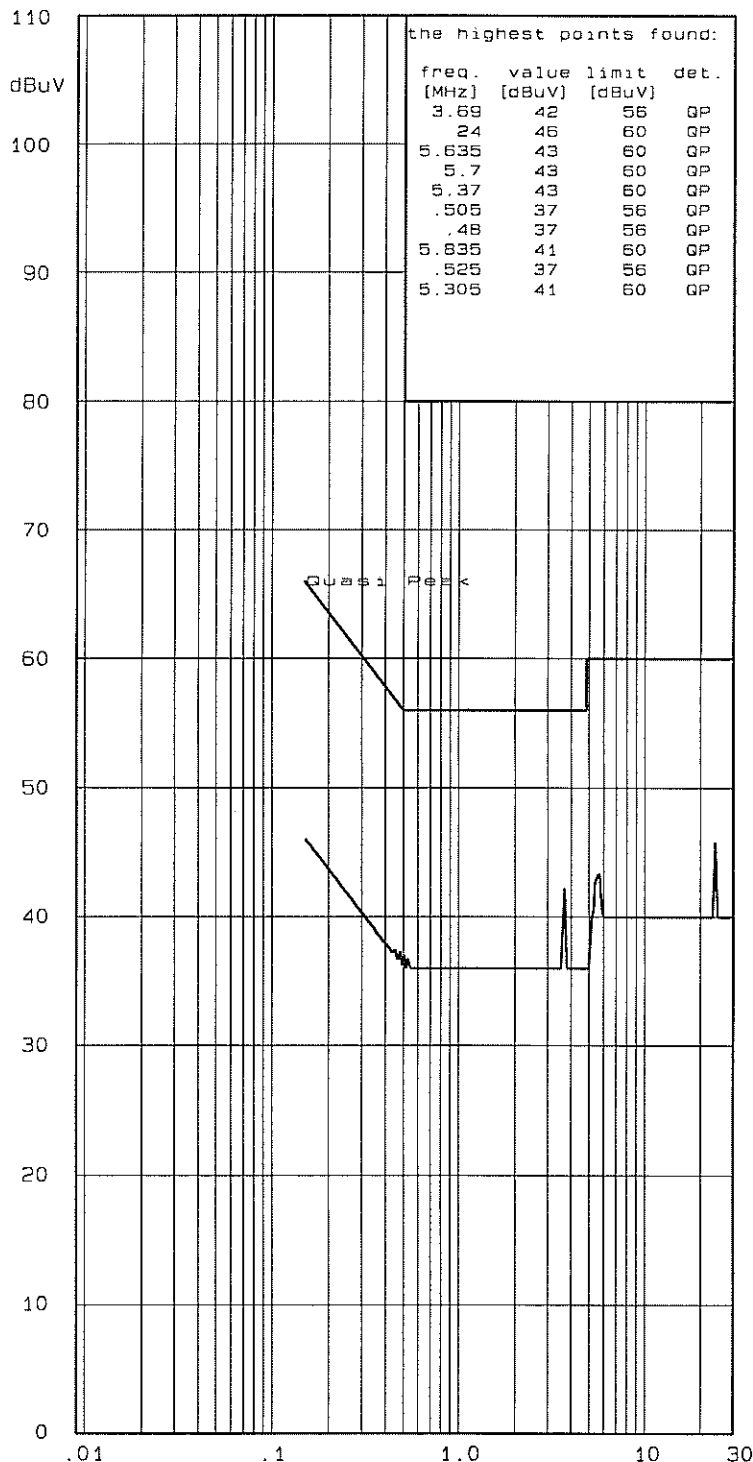
--

\* two dB safety margin for  
type approval necessary

Operator: ED.

Result: OK

IECC



IT 1 / 2

Interference Voltage 150 KHz - 30 MHz

acc. FCC PART 15 Class B (15.107)

Cabin 1

Model: CR249

Spl./Ser.No.: 01/--

Client : MODERN MARKETING

Product: TURNTABLE W/ USB

IECC-No.: 50639

Date: 09.07.08

Test equipment:

Rohde &amp; Schwarz ESHS-30

Schwarzbeck NSLK8127

Connected sets:

--

Operating mode:

DATA TRANSFER

(Playing a record and the signal  
is transferred to the host computer)  
(Line)

RFI suppression parts:

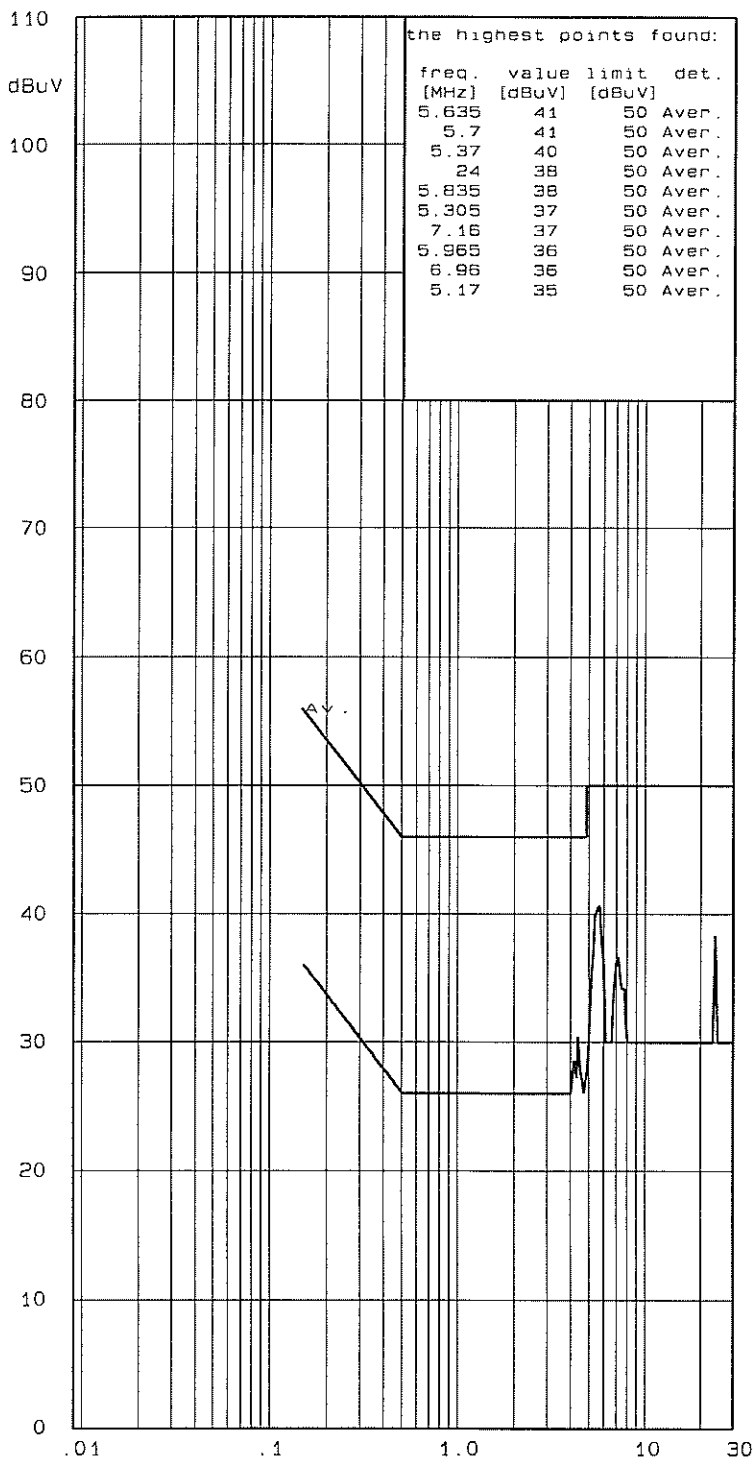
--

\* two dB safety margin for  
type approval necessary

Operator: ED.

Result: OK

IECC



IT 1 / 2

Interference Voltage 150 KHz - 30 MHz

acc. FCC PART 15 Class B (15.107)

Cabin 1

Model: CR249

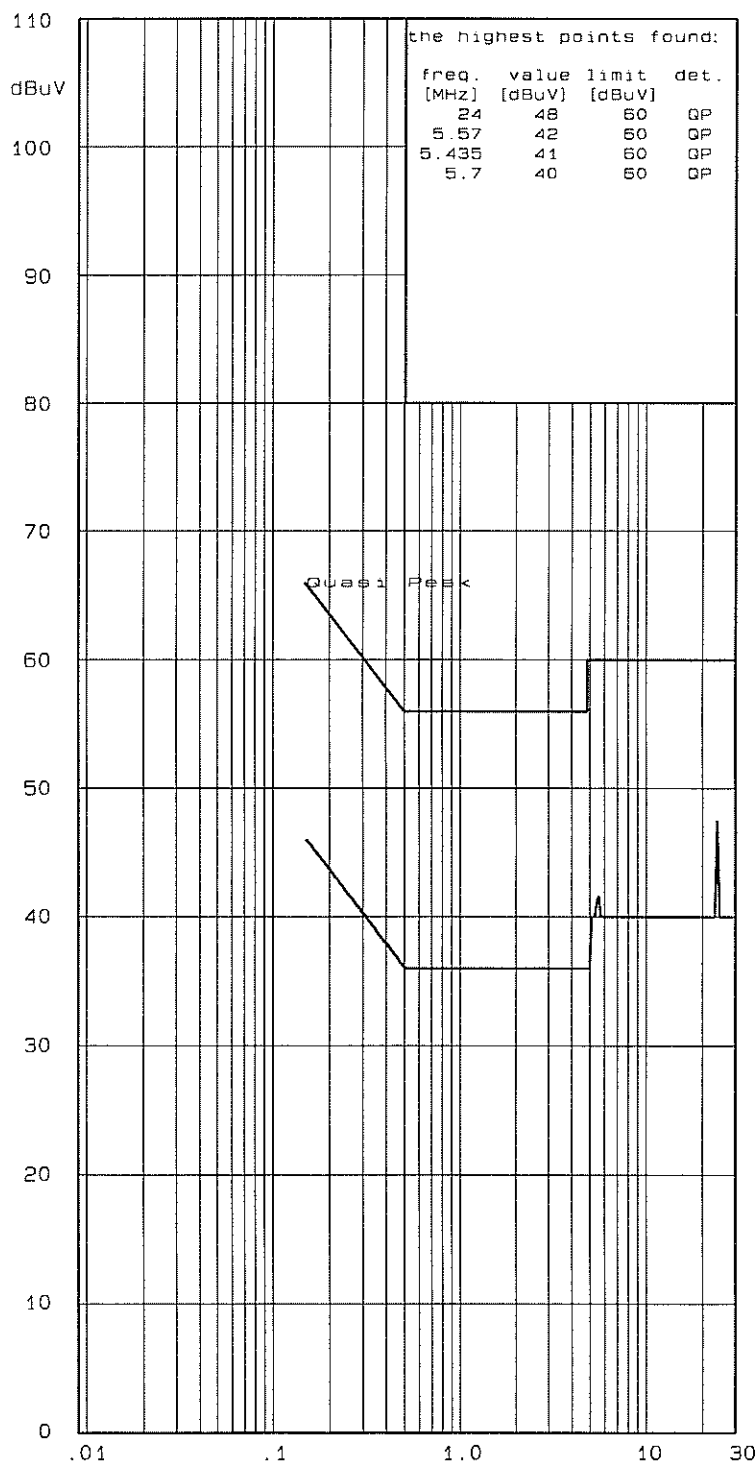
Spl./Ser.No.: 01/--

Client : MODERN MARKETING

Product: TURNTABLE W/ USB

IECC-No.: 50639

Date: 09.07.08



Test equipment:

Rohde &amp; Schwarz ESHS-30

Schwarzbeck NSLK8127

Connected sets:

--

Operating mode:

DATA TRANSFER

(Playing a record and the signal  
is transferred to the host computer)  
(Neutral)

RFI suppression parts:

--

\* two dB safety margin for  
type approval necessary

Operator: ED.

Result: OK

IECC



## IT 1 / 2

Interference Voltage 150 KHz - 30 MHz

acc. FCC PART 15 Class B (15.107)

Cabin 1

Model: CR249

Spl./Ser.No.: 01/--

Client : MODERN MARKETING

Product: TURNTABLE W/ USB

IECC-No.: 50639

Date: 09.07.08

Test equipment:

Rohde &amp; Schwarz ESHS-30

Schwarzbeck NSLK8127

Connected sets:

--

Operating mode:

DATA TRANSFER

(Playing a record and the signal  
is transferred to the host computer)  
(Neutral)

RFI suppression parts:

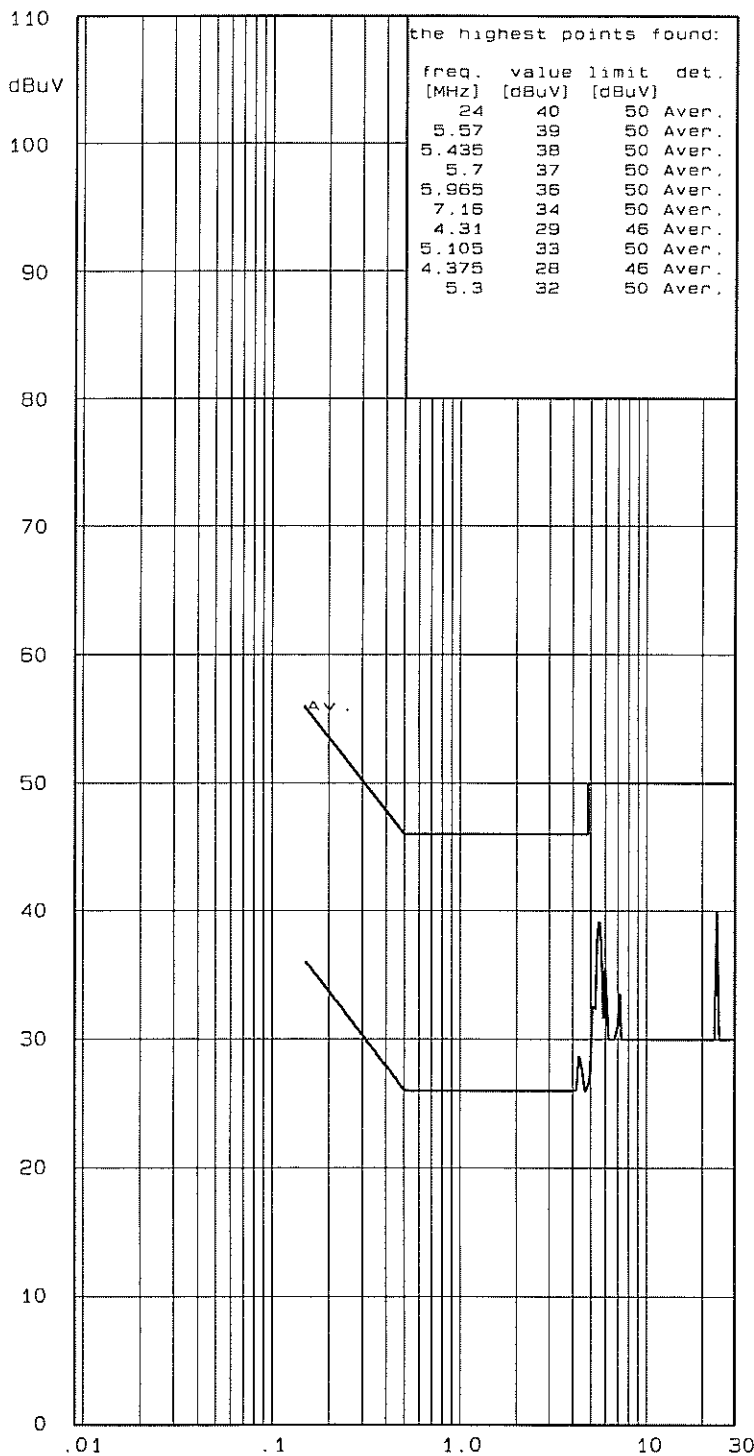
--

\* two dB safety margin for  
type approval necessary

Operator: ED.

Result: OK

IECC



U 5 / 6

Interference Voltage 150 KHz - 30 MHz

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

Cabin 1

Model: CR249

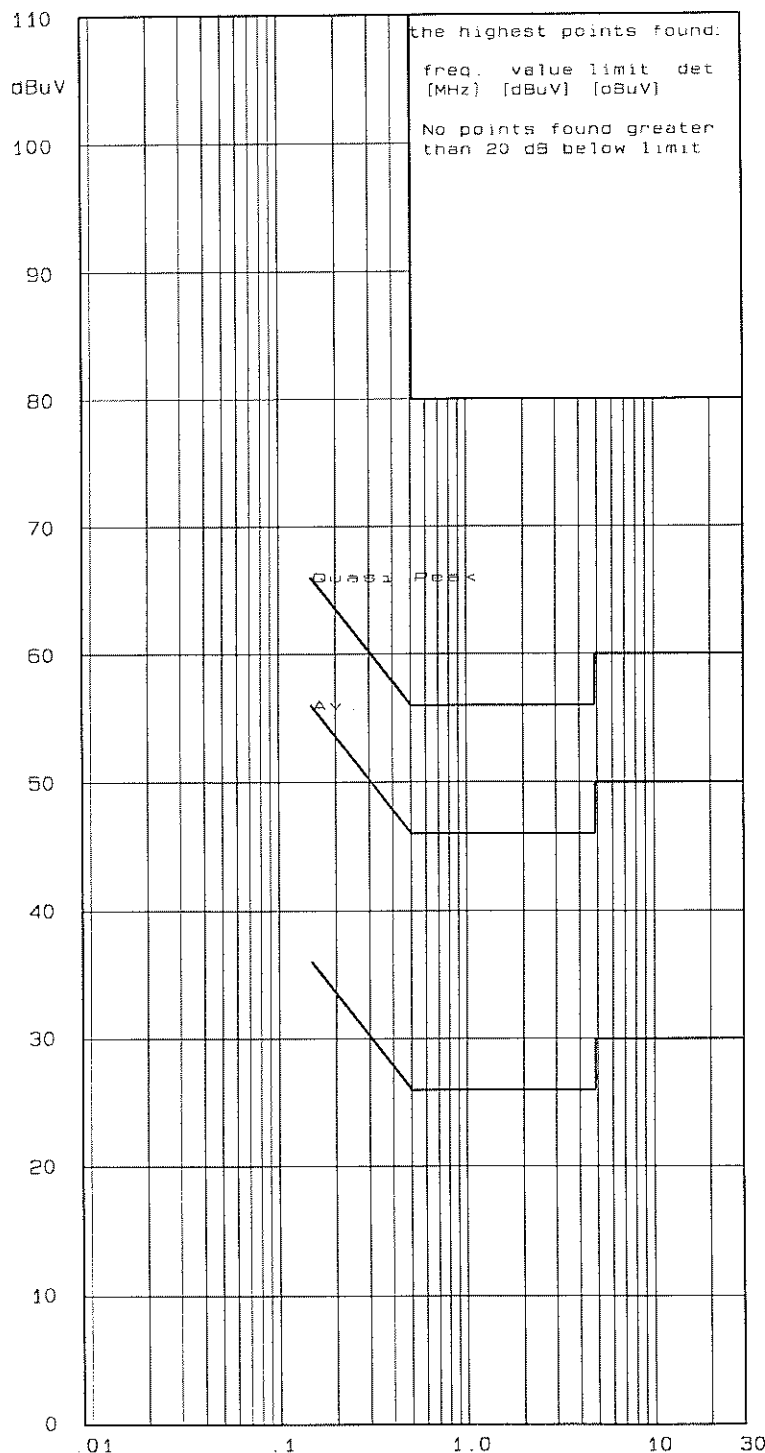
Spl./ Ser. No.: 01/--

Client : MODERN MARKETING

Product: TURNTABLE W/ USB

IECC-No.: 50639

Date: 09.07.08



Test equipment:

Rohde &amp; Schwarz ESHS-30

Schwarzbeck NSLK8127

Connected sets:

--

Operating mode:

Playing a record  
(Line)

RFI suppression parts:

--

\* two dB safety margin for  
type approval necessary

Operator: ED.

Result: OK

IECC

f [MHz]

U 5 / 6

Interference Voltage 150 KHz - 30 MHz

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

Cabin 1

Model: CR249

Spl./ Ser. No.: 01/--

Client : MODERN MARKETING

Product: TURNTABLE W/ USB

IECC-No.: 50639

Date: 09.07.08

Test equipment:

Rohde & Schwarz ESHS-30

Schwarzbeck NSLK8127

Connected sets:

--

Operating mode:

Playing a record  
(Neutral)

RFI suppression parts:

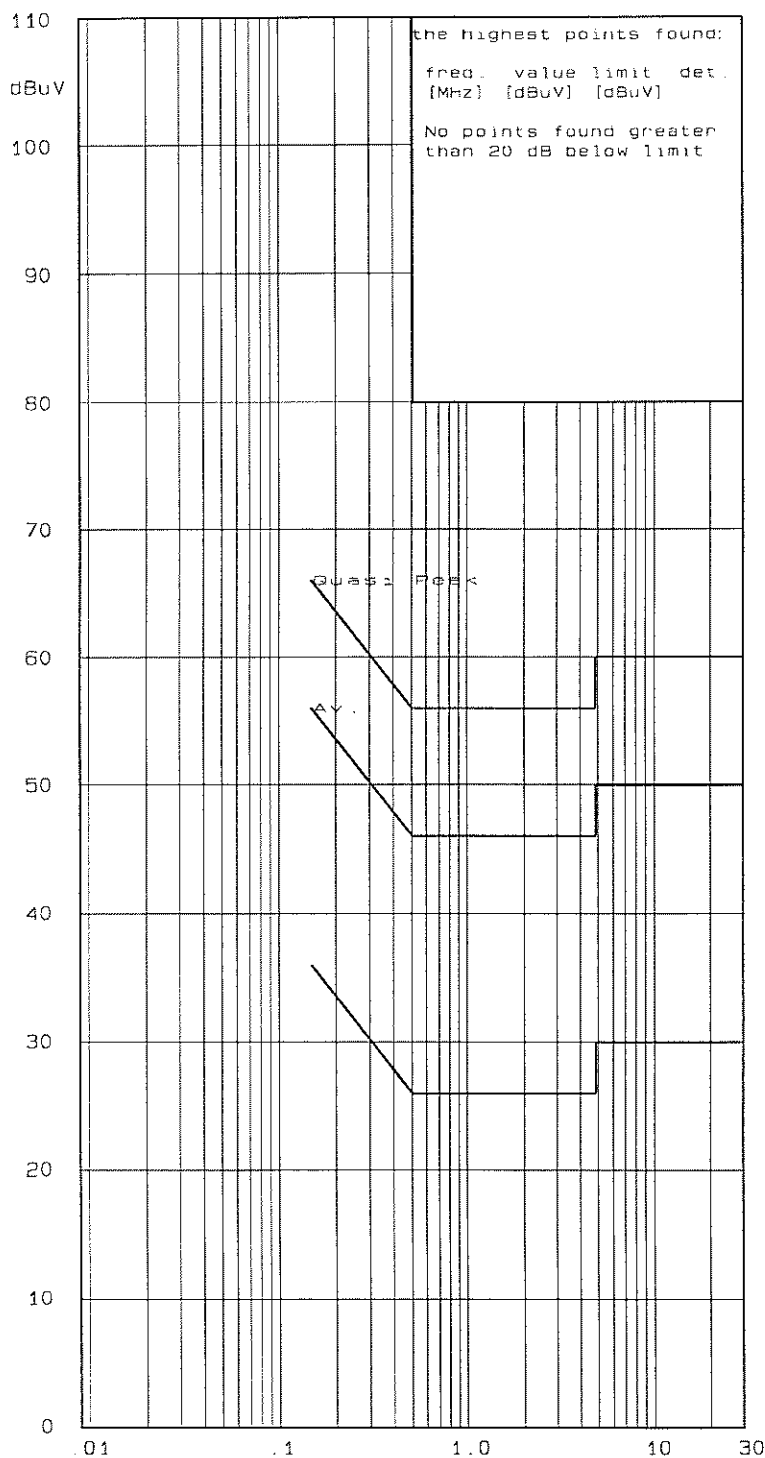
--

\* two dB safety margin for  
type approval necessary

Operator: ED.

Result: OK

IECC



U 5 / 6

Interference Voltage 150 KHz - 30 MHz

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

Cabin 1

Model: CR249

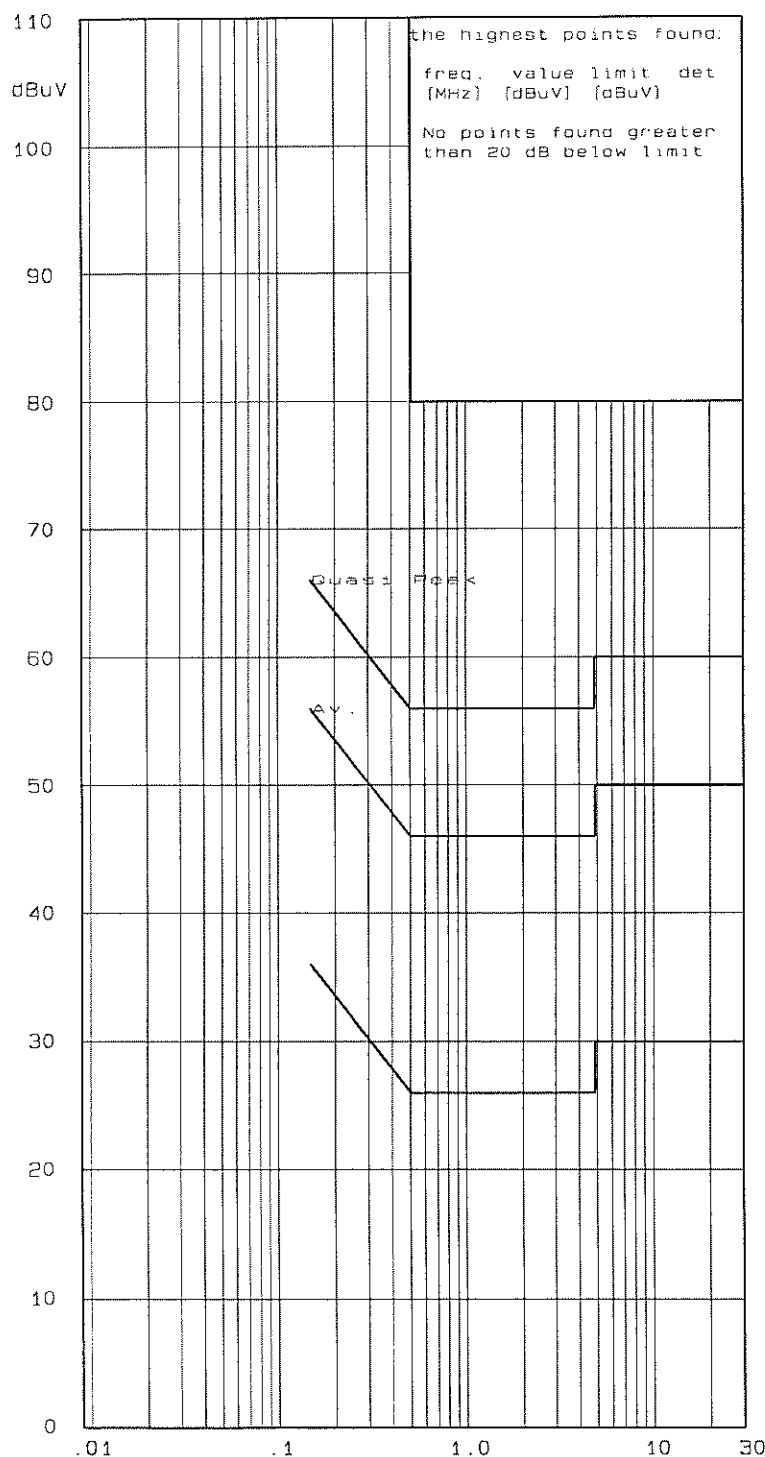
Spl./ Ser. No.: 01/--

Client : MODERN MARKETING

Product: TURNTABLE W/ USB

IECC-No.: 50639

Date: 09.07.08



Test equipment:

Rohde &amp; Schwarz ESHS-30

Schwarzbeck NSLK8127

Connected sets:

--

Operating mode:

Playing a MP3 audio signal via  
the AUX input from a host MP3  
player (max. volume)  
(Line)

RFI suppression parts:

--

\* two dB safety margin for  
type approval necessary

Operator: ED.

Result: OK

IECC

f [MHz]

U 5 / 6

Interference Voltage 150 KHz - 30 MHz

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

Cabin 1

Model: CR249

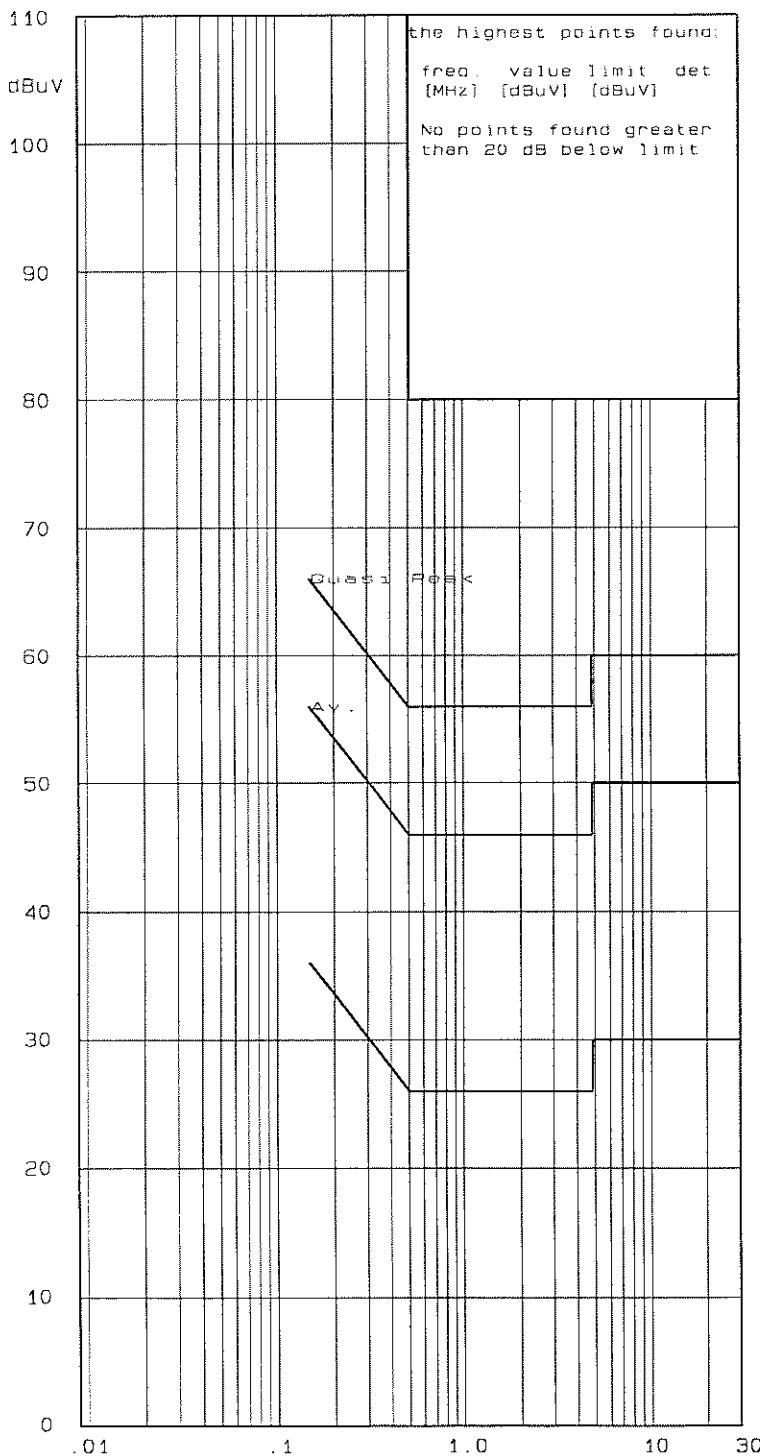
Spl./ Ser. No.: 01/--

Client : MODERN MARKETING

Product: TURNTABLE W/ USB

IECC-No.: 50639

Date: 09.07.08



Test equipment:

Rohde &amp; Schwarz ESHS-30

Schwarzbeck NSLK8127

Connected sets:

--

Operating mode:

Playing a MP3 audio signal via  
the AUX input from a host MP3  
player (max. volume)  
(Neutral)

RFI suppression parts:

--

\* two dB safety margin for  
type approval necessary

Operator: ED.

Result: OK

IECC

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**Photograph Of The Sample**