









Date: 2009-04-07

No. 51978-1

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## **LABORATORY - REPORT**

APPLICANT: ADDRESS:

DOREL JUVENILE GROUP 2525 State Street, Columbus

In 47201 **United States** 

DATE OF SAMPLE RECEIVED:

2009-03-24

DATE OF TESTING:

2009-03-31 to 2009-04-07

**DESCRIPTION OF SAMPLE:** 

Product:

**Baby Monitor** 

Brand name:

Safety 1st Crystal Clear Monitor

Model number: Product class:

49379, 49377, 08026, 49230

FCC ID number:

Low Power Communication Device - Transmitter

MNJ49379T

Rating:

AC/DC Adaptor - HA28UF-0902, Input: AC120V 60Hz 3.9W;

Output: DC9V 200mA

**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 C - Intentional Radiators.

**RESULTS:** 

See the attached 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

FLECTRICAL CERTIFICATION

路認証中心有

above.

Stephen C.N. Wong Technical Manager











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廣州市水蔭路56號3棟2A室

Postcode 郵政編號: 510075











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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@jecc.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

#### Measurement of Emissions within Band Edges

Test result: O.K.

Test data: See attached data sheet

Address 地址:

China 中國: Address 地址:

IECC (Guangzhou) Services Co., Ltd. 廣州時亚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

Tel 電話: (86-20) 8768 4838 Fax 傳真: (86-20) 8768 3918 E-mail 電子郵件: info@iecc.com.hk Home Page 網頁: http://www.iecc.com.hk











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## TEST EQUIPMENT LIST

Equipment	Manufacturer	Model	Serial No.	Last Calibration Date	Next Calibration Date	
Test Receiver	Rohde & Schwarz	ESCS 30	100388	26/8/2008	25/8/2009	
Test Receiver	Rohde & Schwarz	ESHS 30	839667/002	07/01/2009	06/01/2010	
Artificial Mains Network (LISN)	Schwarzbeck	NSLK 8127	8127312	2/12/2008	1/12/2009	
Antenna	Schaffner	CBL6111C	2791	22/07/2008	21/07/2010	
Antenna Mast System	Schwarzbeck	AM9104				
Turntable with Controller	Drehtisch	DT312				
Spectrum Analyzer with Q. Peak	Advantest	R3132	140101852	03/06/2008	02/06/2009	

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







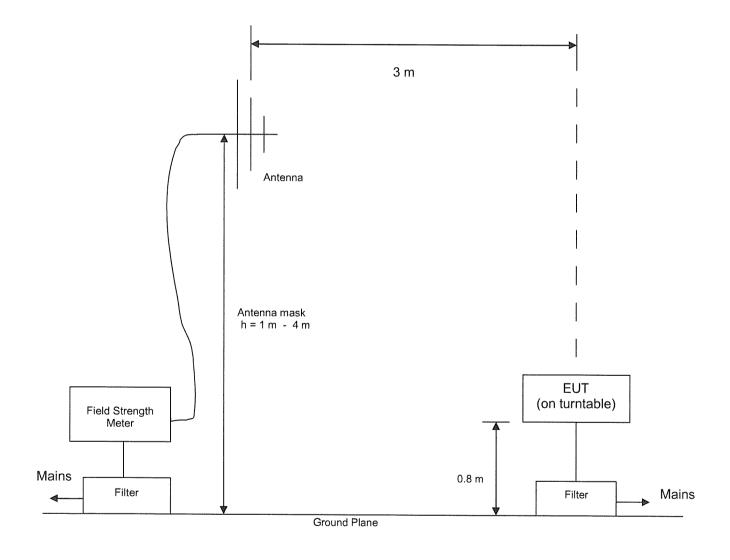


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#### Radiated Emission Test Setup (3 m diatance) (> 30MHz)











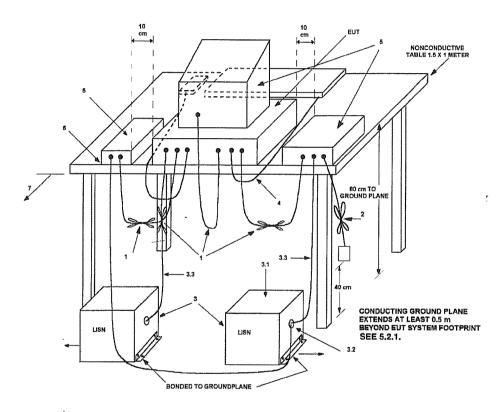


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#### **Conducted Emission Test Setup**



#### LEGEND:

- 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).
- 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 C Section 15.209 and 15.235.

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 table is 0.8 meter above the reference ground plane on the Open Aera Test Site and can rotate 360 degrees to determine the position of the maximum emission level. A broadband 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.

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 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:**

The EUT was tested according to ANSI 63.4-2003 for the requirements of FCC Part 15 Subpart C Section 15.207.

During the test, the sample was placed on a wooden table and operated under different modes with supply at rated AC voltage (i.e AC120V 60Hz) via the LISN to the AC/DC adaptor. The table is 0.8 meter above the floor. The LISN 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 C Section 15.209 and 15.235

Test Method: ANSI C63.4: 2003

Deviations from Standard Test Method: Nil

Frequency Range: 30MHz - 1000MHz

Measurement Distance: 3 m

Detector: Peak / Average (for fundamental frequency)

Quasi-Peak (for frequencies outside the operation band)

Refer to page 9 -10 for measurement data.

#### **Conducted Emission:**

Test Requirement: FCC Part 15 Subpart C Section 15.207

Test Method: ANSI C63.4: 2003

Deviations from Standard Test Method: Nil

Frequency Range: 150kHz - 30MHz

Detector: Quasi-Peak / Average

Refer to page 11 - 14 for measurement data.

Tel 電話: (852) 2305 2570 Fax 傳真: (852) 2756 4480

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Accredited Laboratory





#### Interference Radiation

Measurement of Radiated Emissions Acc: FCC Part 15 Subpart C (15.235 & 15.209) Date: 2009-04-07

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IECC Ref:

51978-1

Test Equipment

Model: Applicant: 49379 DOREL JUVENILE GROUP

Receiver: Rohde & Schwarz ESCS 30 Antenna: Schaffner CBL6111C

Ser.Nr.:

Baby Monitor

Set under test: Connected sets:

Saby Mornic

Operating mode:

Operated with reference audio signal

Channel I - Operation frequency: 49.85MHz

	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 dΒ(μV/m)
Peak	49.85	57.5	69	7.8	65.3	76.8	100.0
Av.	49.85	55.5	67	7.8	63.3	74.8	80.0
Harm. 2	99.7	< 16	< 16	9.5	< 25.5	< 25.5	43.5
Harm. 3	149.55	< 16	< 16	11.5	< 27.5	< 27.5	43.5
Harm. 4	199.4	< 16	< 16	8.7	< 24.7	< 24.7	43.5
Harm. 5	249.25	< 16	< 16	13.5	< 29.5	< 29.5	46.0
Harm. 6	299.1	< 16	< 16	14.2	< 30.2	< 30.2	46.0
Harm. 7	348.95	< 16	< 16	15.2	< 31.2	< 31.2	46.0
Harm. 8	398.8	< 16	< 16	16.6	< 32.6	< 32.6	46.0
Harm. 9	448.65	< 16	< 16	18.4	< 34.4	< 34.4	46.0
Harm. 10	498.5	< 16	< 16	18.9	< 34.9	< 34.9	46.0
Harm. 11	548.35	< 16	< 16	20.6	< 36.6	< 36.6	46.0
Harm. 12	598.2	< 16	< 16	20.6	< 36.6	< 36.6	46.0
Harm. 13	648.05	< 16	< 16	21.7	< 37.7	< 37.7	46.0
Harm. 14	697.9	< 16	< 16	22.2	< 38.2	< 38.2	46.0
Harm. 15	747.75	< 16	< 16	23.6	< 39.6	< 39.6	46.0
Harm. 16	797.6	< 16	< 16	23.8	< 39.8	< 39.8	46.0
Harm. 17	847.45	< 16	< 16	24.4	< 40.4	< 40.4	46.0
Harm. 18		< 16	< 16	24.4	< 40.4	< 40.4	46.0
Harm. 19	947.15	< 16	< 16	25.9	< 41.9	< 41.9	46.0

- Note: 1. Unless otherwise indicated, the recorded readings are in quasi-peak values.
  - The above results were the worst case results with the sample positioned in all 3 axis during the test.The worst case data were recorded with the antenna of the sample pointing vertical for vertical measurement and pointing horizontal for horizontal measurement.
  - 3. Due to the transmitted signal is not in pulse waveform, the average value of the radiation at the fundamental frequency is recorded by direct measurement. Calculation from time domain plots is not applicable.

Operator: KT









#### Interference Radiation

Measurement of Radiated Emissions Acc: FCC Part 15 Subpart C (15.235 & 15.209) Date: 2009-04-07

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IECC Ref: Model: Applicant: 51978-1

49379

DOREL JUVENILE GROUP

Receiver: Rohde & Schwarz ESCS 30 Antenna: Schaffner CBL6111C

Test Equipment

Ser.Nr.:

Set under test: Connected sets: Baby Monitor

Operating mode:

Operated with reference audio signal

Channel II - Operation frequency: 49.87MHz

	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 dΒ(μV/m)
Peak	49.87	57.5	69	7.8	65.3	76.8	100.0
Av.	49.87	55.5	67	7.8	63.3	74.8	80.0
Harm. 2	99.74	< 16	< 16	9.5	< 25.5	< 25.5	43.5
Harm. 3	149.61	< 16	< 16	11.5	< 27.5	< 27.5	43.5
Harm. 4	199.48	< 16	< 16	8.7	< 24.7	< 24.7	43.5
Harm. 5	249.35	< 16	< 16	13.5	< 29.5	< 29.5	46.0
Harm. 6	299.22	< 16	< 16	14.2	< 30.2	< 30.2	46.0
Harm. 7	349.09	< 16	< 16	15.2	< 31.2	< 31.2	46.0
Harm. 8	398.96	< 16	< 16	16.6	< 32.6	< 32.6	46.0
Harm. 9	448.83	< 16	< 16	18.4	< 34.4	< 34.4	46.0
Harm. 10	498.7	< 16	< 16	18.9	< 34.9	< 34.9	46.0
Harm. 11	548.57	< 16	< 16	20.6	< 36.6	< 36.6	46.0
Harm. 12	598.44	< 16	< 16	20.6	< 36.6	< 36.6	46.0
Harm. 13	648.31	< 16	< 16	21.7	< 37.7	< 37.7	46.0
Harm. 14	698.18	< 16	< 16	22.2	< 38.2	< 38.2	46.0
Harm. 15	748.05	< 16	< 16	23.6	< 39.6	< 39.6	46.0
Harm. 16	797.92	< 16	< 16	23.8	< 39.8	< 39.8	46.0
Harm. 17	847.79	< 16	< 16	24.4	< 40.4	< 40.4	46.0
Harm. 18	897.66	< 16	< 16	24.4	< 40.4	< 40.4	46.0
Harm. 19	947.53	< 16	< 16	25.9	< 41.9	< 41.9	46.0

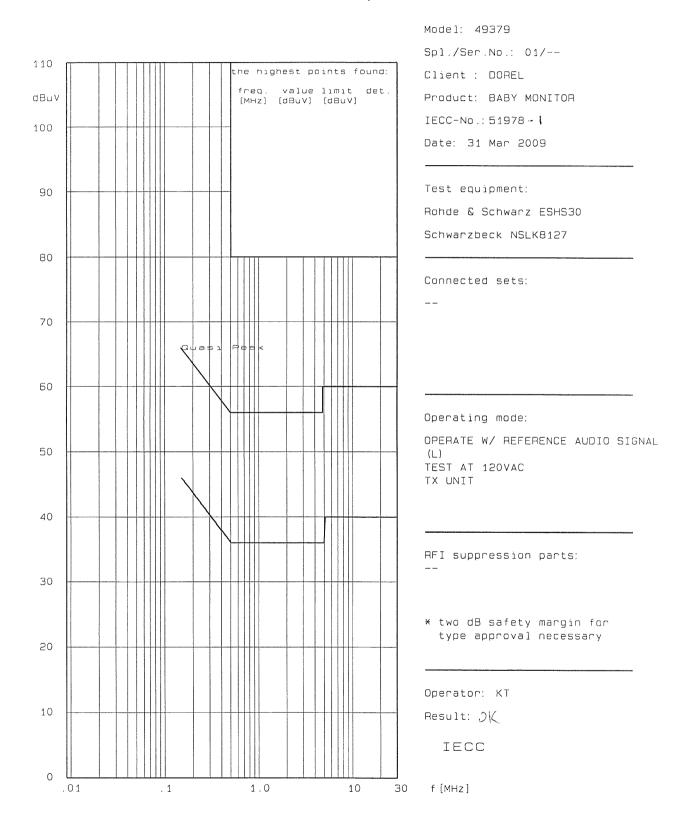
- Note: 1. Unless otherwise indicated, the recorded readings are in quasi-peak values.
  - 2. The above results were the worst case results with the sample positioned in all 3 axis during the test. The worst case data were recorded with the antenna of the sample pointing vertical for vertical measurement and pointing horizontal for horizontal measurement.
  - 3. Due to the transmitted signal is not in pulse waveform, the average value of the radiation at the fundamental frequency is recorded by direct measurement. Calculation from time domain plots is not applicable.

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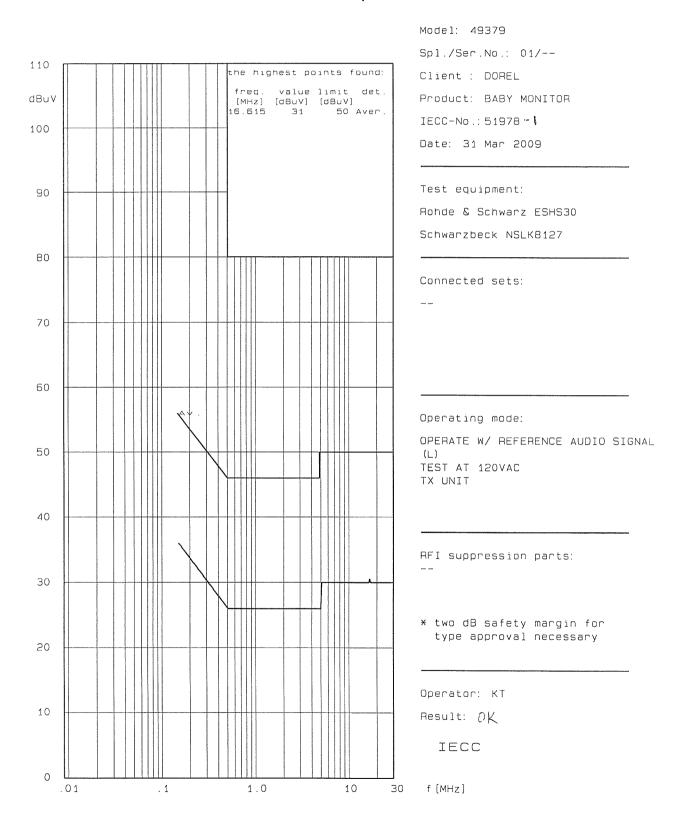
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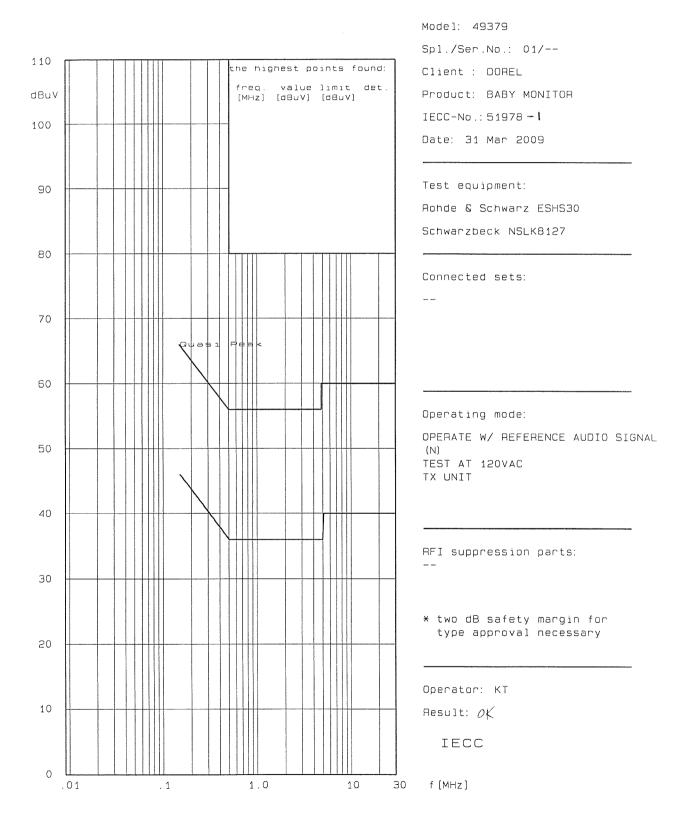
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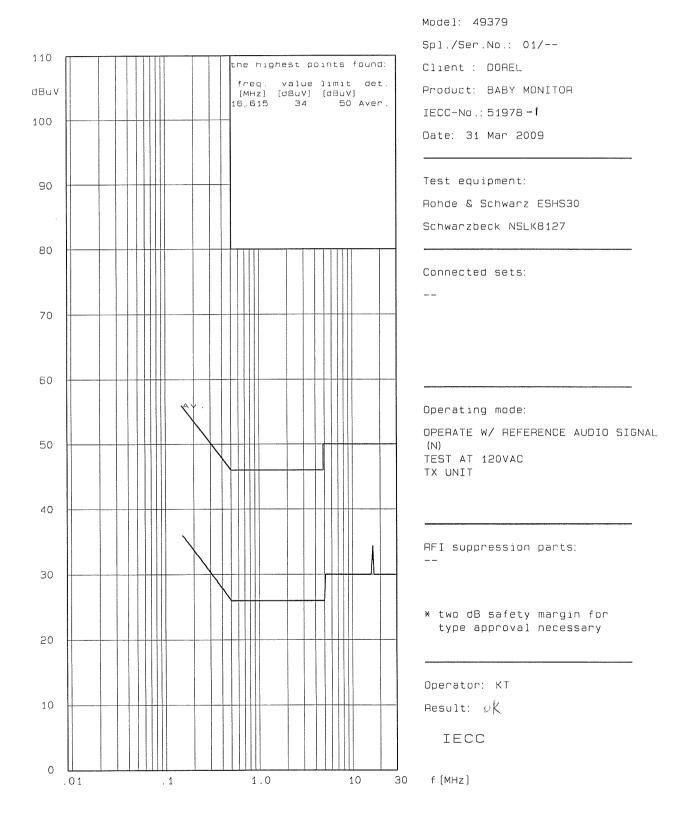
## U 5/6





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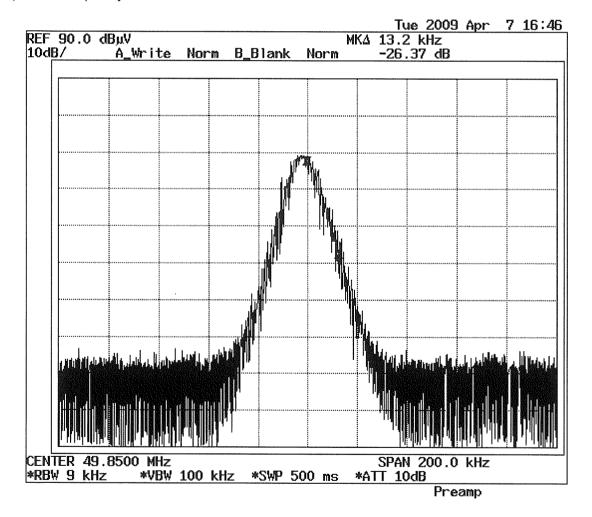
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# Measurement Data of Emissions within Band Edges

Test channel: I

Operation frequency: 49.85 MHz



Result : The field strength of any emission within the operation band did not exceed 80 dB( $\mu$ V/m) for average value or 100 dB( $\mu$ V/m) for peak value. Refer to page 9 for the recorded value for the emission at the fundamental frequency.









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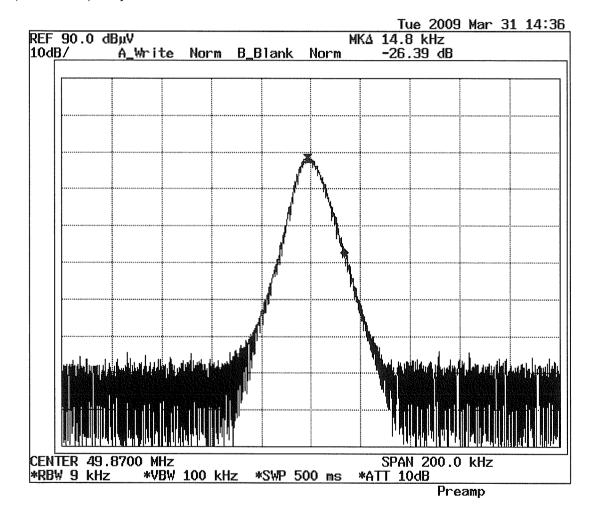
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## Measurement Data of Emissions within **Band Edges**

Test channel: II

Operation frequency: 49.87 MHz



Result: The field strength of any emission within the operation band did not exceed 80  $dB(\mu V/m)$  for average value or 100  $dB(\mu V/m)$  for peak value. Refer to page 10 for the recorded value for the emission at the fundamental frequency.

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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. Postcode 郵政編號: 510075 廣州市水蔭路56號3棟2A室

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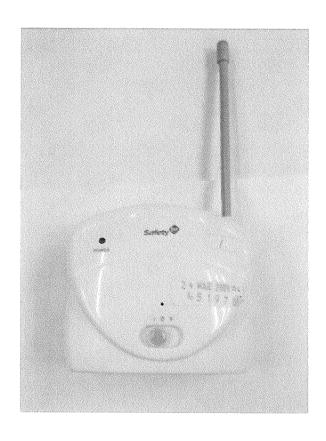


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## **Photo of Sample**





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