



# Calibration Certificate

Certificate No. **81355**

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**Customer :** ETS-Testconsult Limited

**Address :** 8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan St., Fotan, Hong Kong.

**Order No. :** Q80566

**Date of receipt :** 1-Apr-08

## Item Tested

**Description :** Sound Level Calibrator

**Manufacturer :** Rion

**Model :** NC-73

**Serial No. :** 10196943

## Test Conditions

**Date of Test :** 3-Apr-08

**Supply Voltage :** --

**Ambient Temperature :** (23 ± 3)°C

**Relative Humidity :** (50 ± 25) %

## Test Specifications

Calibration check.

Calibration procedure : F21, Z02.

## Test Results

All results were within the manufacturer's specification.

The results are shown in the attached page(s).


Main Test equipment used:

<u>Equipment No.</u>	<u>Description</u>	<u>Cert. No.</u>	<u>Due Date</u>	<u>Traceable to</u>
S014	Spectrum Analyzer	73602	7-Jul-08	NIM-PRC & SCL-HKSAR
S024	Sound Level Calibrator	71791	16-Jul-08	NIM-PRC & SCL-HKSAR
S041	Universal Counter	73453	22-Aug-08	SCL-HKSAR

The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to International System of Units (SI).  
The test results apply to the above Unit-Under-Test only

Calibrated by :   
Dorothy Cheuk

Approved by :   
Steve Kwan

Date: 3-Apr-08

This Certificate is issued by:  
Hong Kong Calibration Ltd.  
Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street, Kwai Chung, NT, Hong Kong.  
Tel: 2425 8801 Fax: 2425 8646

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Results :

**1. Level Accuracy (at 1 kHz)**

UUT Nominal Value	Measured Value	Mfr's Spec.
94 dB	94.0 dB	$\pm 1$ dB

Uncertainty :  $\pm 0.1$  dB

**2. Frequency Accuracy**

UUT Nominal Value	Measured Value	Mfr's Spec.
1 kHz	0.990 8 kHz	$\pm 2$ %

Uncertainty :  $\pm 0.1$  %

**3. Level Stability : 0.0 dB**  
Uncertainty :  $\pm 0.01$  dB

**4. Total Harmonic Distortion : < 0.1 %**  
Mfr's Spec. : < 3 %  
Uncertainty :  $\pm 2.3$  % of reading

Remark : 1. UUT : Unit-Under-Test  
2. The uncertainty claimed is for a confidence probability of not less than 95%.  
3. The above measured values are the mean of 3 measurement.  
4. Atmospheric Pressure : 1 005 hPa

----- END -----



## RION CO., LTD.

3-20-41 Higashimotomachi Kokubunji Tokyo 185-8533  
Phone:042(359)7888, Facsimile:042(359)7442

# Certificate of Calibration

Name : Precision sound level meter  
Model : NL-31 S/No. : 00773032  
Microphone : UC-53A S/No. : 313111  
Preamplifier : NH-21 S/No. : 25043

Date of Calibration : November, 27, 2007

We hereby certify that the above product was tested and calibrated according to the prescribed Rion procedures, and that it fulfills specification requirements.

The measuring equipment and reference devices used for testing and calibrating this unit are managed under the Rion traceability system and are traceable according to official Japanese standards and official standards of countries belonging to the International Committee of Weights and Measures.



*J. Kano*  
Manager, Quality Control Department