Class 1 Sound Level Meter NL-63 (With low-frequency sound measurement function)
Class 1 Sound Level Meter NL-53
Class 2 Sound Level Meter NL-43

RION



Exploring the possibility of Noise Measurement

Class 2
Sound Level Meter
NL-43

Class 1
Sound Level Meter
NL-53

Class 1 Sound Level Meter
(With low-frequency sound measurement function)
NL-63

“Connect” is the keyword of RION’s new sound level meters.

The meter can be accessed from anywhere in the world, enabling remote noise monitoring while in the office!



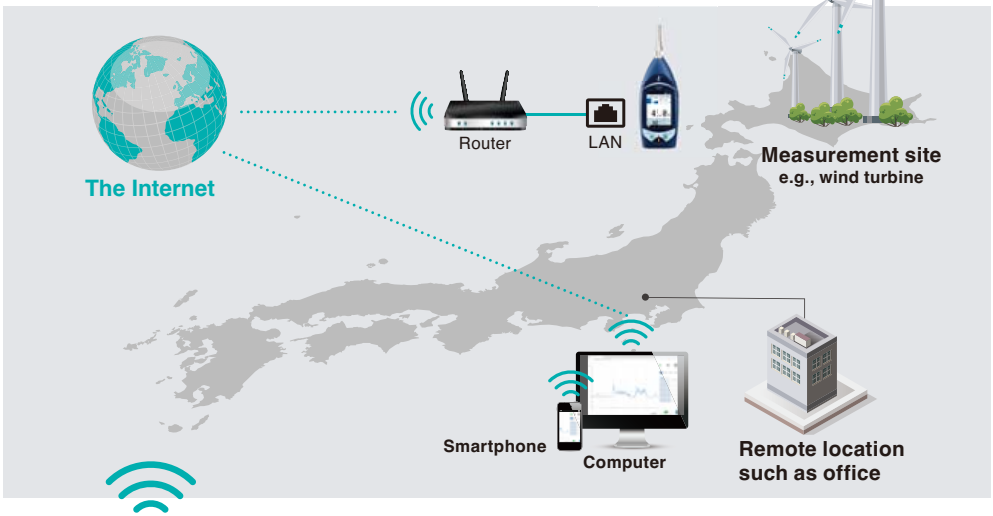
The user interface has been designed to be intuitive and easy to understand for the ultimate in user-friendliness.

Newly equipped with LAN terminals, the meters offer various enhanced functions to connect to other communication devices and to maximize the effectiveness of noise measurement tasks.

＊The meter features a protective cover for the terminal located at the bottom of the unit.

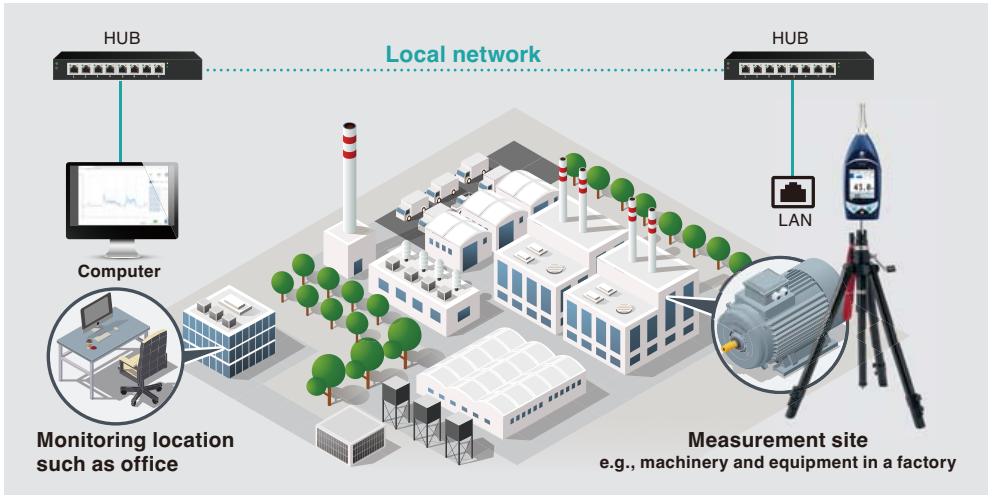
Case 1 Environmental noise monitoring of remote locations

The operational status of the sound level meter can be checked remotely from a web browser, reducing the number of site visits. You can also use the meter with a mobile router for wireless communications.



Case 2 Noise monitoring of equipment and machinery at factories and site boundary lines

Connecting the LAN terminal on the sound level meter and computer with a LAN cable allows noise monitoring from the web browser.



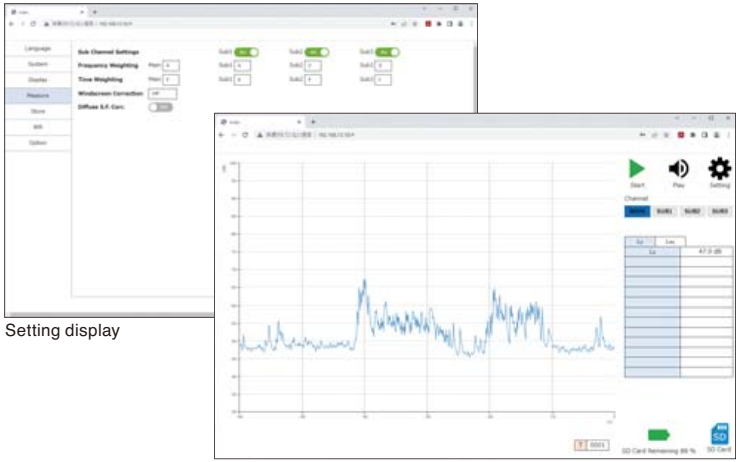
＊A NX-43WR is required to listen to the sound during noise measurement on your browser.



Web browser

By connecting to a network, remote connection via web browser of PC or smartphone is established.

Main function
- View and acquire measurement date
- Remote operation of the sound level meter (measurement settings, start and stop of measurement, time adjustment, etc.)
- Real-time audio playback (with optional NX-43WR, Supported by only Google Chrome)
- File download (Downloads are limited to one file at a time.)
- Marker function (up to four colors)

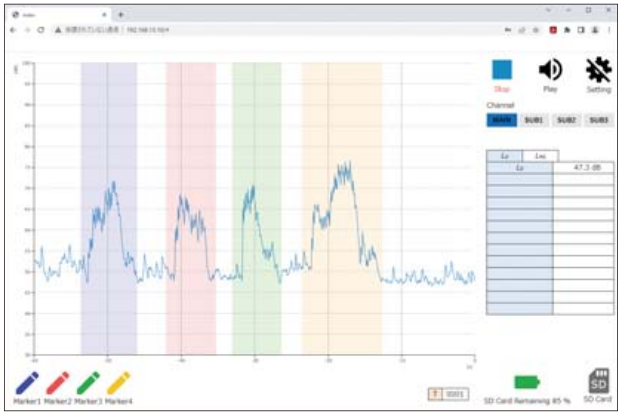


Setting display

Measurement screen
(Time-Level graph display, calculated value display)

Marker function

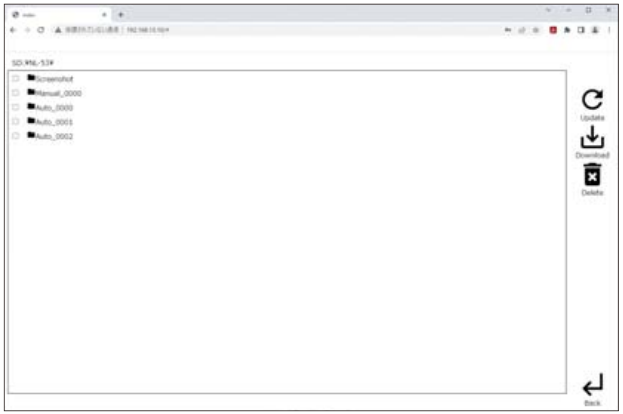
Sections of characteristic sounds can be color-marked for later examination.



File download

Stored data can be retrieved remotely.

＊Downloads are limited to one file at a time.





Feature-packed interface

LAN terminal

∗NX-43EX is required for NL-43/53
∗NX-43WR is required for listening to sound





I/O terminal
∗RS-232C, comparator output, trigger input, printer
∗The unit features a protective cover for the SD card slot located at the side of the unit.

New Feature

Equipped with USB Type-C connector
— for enhanced efficiency of on-site measurement tasks —

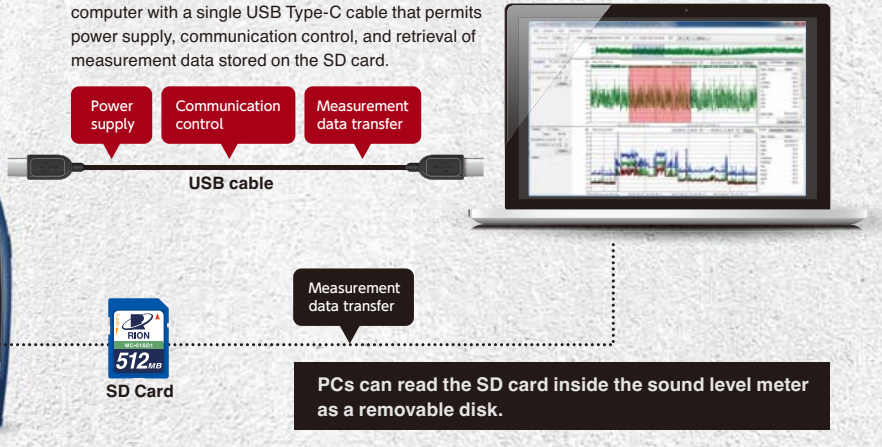
Compatible with USB power supply

Power can be supplied from commercially available portable charger compatible with USB Type-C connections or from USB ports on PCs, enabling use at sites without other power sources.



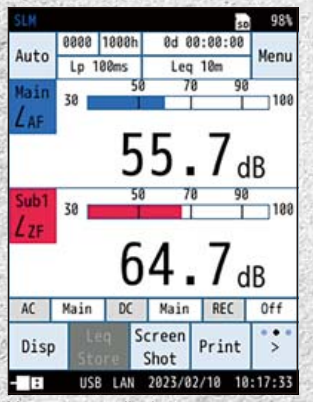
Simple hardware configuration

The sound level meter can be connected to a computer with a single USB Type-C cable that permits power supply, communication control, and retrieval of measurement data stored on the SD card.

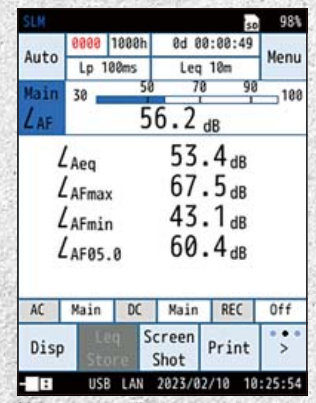


Intuitive operation without the need to refer to manual

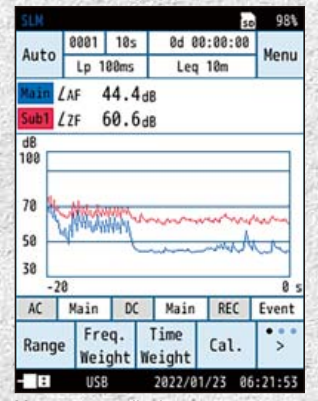
Color LCD with touch panel



Measurement display
(instantaneous SPL, 2 channels)



Measurement display
(calculated values)



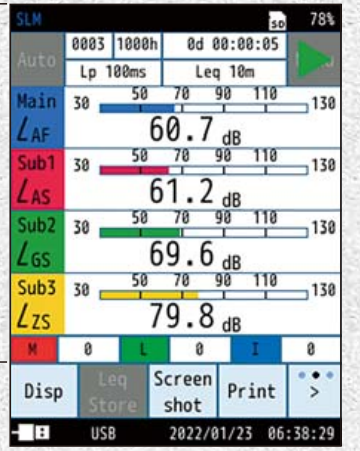
Measurement display
(Time-Level Graph)



Language settings display

Convenient for noise and low frequency sound measurements

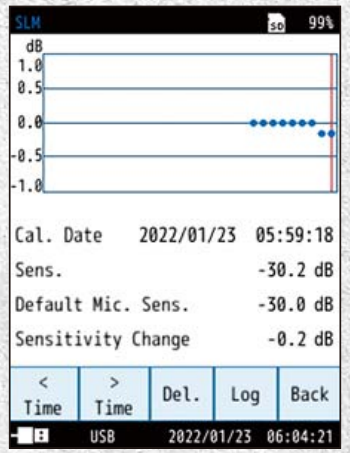
A-weighted, G-weighted*, and Z-weighted (LPF 100 Hz*) sounds can be saved in a single measurement run.
E.g.) Set with L_{AF}, L_{GS}, L_{ZS} (L_{PF}100Hz)
∗Only with NL-63



New Feature

A single meter can measure with up to 4 different settings simultaneously and reduces measurement time

You can set 4 different frequency and time weighting and save instantaneous and calculated values.



New Feature

View and manage a unit's calibration history and save to SD card

Recording changes in microphone sensitivity leads to reliable data management.

Water resistance

IP54 water-resistant performance (except for microphone)
Helps reduce risk of failure due to sudden rain showers, etc.

∗Mounting the all-weather windscreen or rainproof windscreen boosts the water resistant performance of the microphone unit to meet IPX3 specifications.

Rechargeable batteries are available as more sustainable option



Sound calibrators meeting requirements of IEC 60942

Optional; see p. 9 for more information.

Comply with the international standards

IEC 61672-1:2013, ANSI/ASA S1.4

Capable of various noise measurements

Newly enhanced functions help achieve your tasks more comprehensively, with less effort



Optional program function list [Installing the optional programs adds the following functions]

Adding programs

Extended function program
NX-43EX

+

The NX-43EX allows users to add the NX-43WR, NX-43RT and NX-43FT.

Adding programs

- Waveform recording program **NX-43WR**
- FFT analysis program **NX-43FT**
- Octave, 1/3 octave band analysis program **NX-43RT**

Extended function program NX-43EX

Compatible models

NL-43
NL-53
NL-63 (pre-installed)

∗NX-43EX required for NL-53/NL-43

512 MB

The NX-43EX is supplied on the 512 MB SD card. The 512 MB SD card can be used as a memory card after installing the program.

Auto store function

This function allows simultaneous and continuous measurements in L_p (instantaneous value) and L_{eq} calculation (calculated values such as equivalent continuous sound pressure level, percentile sound levels, maximum sound pressure level).

Newly added function

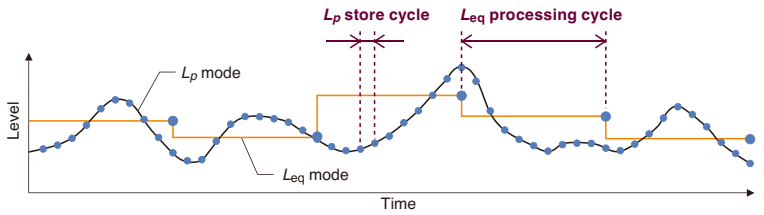
L_p store cycle	10 ms	25 ms	100 ms	200 ms	1 s

Upgrade function from conventional model

Compatible with long-term environmental measurements —allows recordings of up to 1,000 hours (1 month) or longer!

Example of recording: Approximately 8,500 hours (354 days) of recording possible with L_p store cycle of 100 ms and use of 32 GB SD card.

L_p mode (instantaneous SPL) and L_{eq} mode (equivalent continuous SPL) concept



Simultaneous recording in both L_p mode (Auto 1) and L_{eq} mode (Auto 2)

Newly added features

Three types of trigger functions

Measurement starts when a trigger is detected.

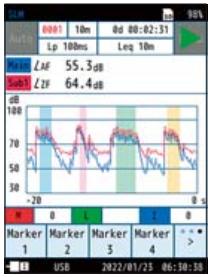
Level trigger | Timer auto | External trigger

LAN function

Allows remote operation of the sound level meter and remote monitoring of real-time conditions.

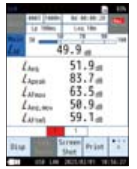


Four types of marker functions



Example:
Measurements of road traffic noise
■Marker1 Plane
■Marker2 Train
■Marker3 Human voice
■Marker4 Others (Dogs,Birds,Winds,Rain)

Characteristic noise events can be colored and reviewed later.
By linking with Environmental measurement data management software AS-60, it is also possible to perform exclusion sound processing at marker locations.



New Feature
[L_{eq}, mov]

Displays the calculated value of moving equivalent continuous sound level.

Comparator function

This function turns on when the open collector output exceeds the set value [Maximum input voltage 24 V, Internal resistance approx. 480 Ω, Allowable power dissipation 300 mW].

Continuous data output function

This function enables the continuous acquisition of instantaneous calculated and processed values during USB, RS-232C and LAN communication. It is convenient for designing users' own control programs where data has to be transferred continuously from the meter to the computer.

Waveform recording program NX-43WR



Compatible models

NL-43＊ / NL-53＊ / NL-63

＊NX-43EX required for NL-53/NL-43

2 GB

The NX-43WR is supplied on the 2 GB SD card. The 2 GB SD card can be used as a memory card after installing the program.

This function enables users to record sounds while processing sound levels.

Recorded data can be played back on computers and used for frequency analysis (uncompressed waveform WAVE file). The data can be processed with waveform analysis software such as AS-70 for graphing, sound level calculations, frequency analysis, file output, and sound file playback.

Ideal for long-term monitoring of low frequency sound

240 Hz and 1200 Hz are added for NL-63.
This realizes FFT analysis in higher resolution and longer recording duration in low frequency sound measurement.

Sampling frequency (24 bit or 16 bit)

Newly added function

240 Hz	1200 Hz	12 kHz	24 kHz	48 kHz

For NL-63 only — NL-43/53/63

Maximum recording time

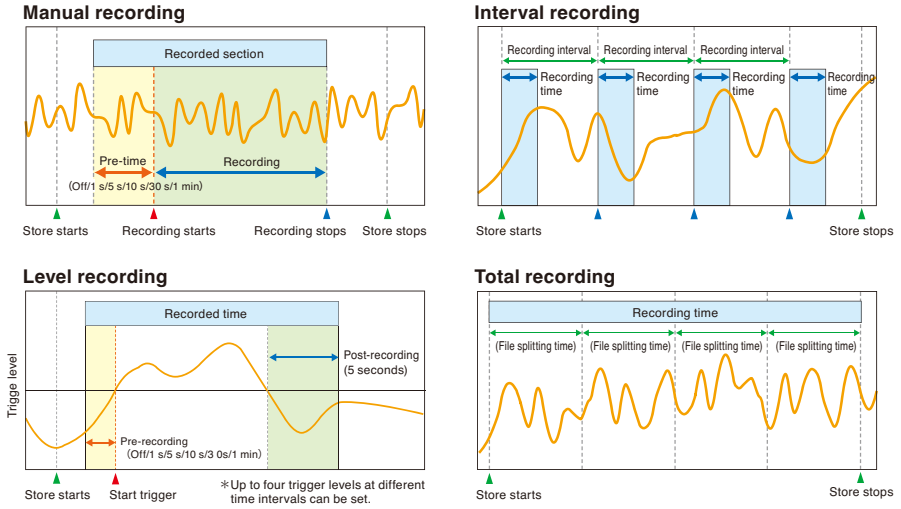
(Assumes certain settings for auto store mode, 16 bit, and *Lp* store cycle of 100 ms:)

＊For NL-63 only

Sampling frequency \ Memory card	512 MB	2 GB	32 GB
48 kHz	1 h	4 h	74 h
24 kHz	2 h	9 h	146 h
12 kHz	4 h	18 h	278 h
1200 Hz＊	24 h	100 h	1520 h
240 Hz＊	41 h	165 h	2520 h

Recording in 24 bit creates files 1.5 times larger than 16-bit recordings. Accordingly, the maximum recording time is reduced to 2/3.

Recording Modes



FFT analysis program NX-43FT



Compatible models

NL-43＊ / NL-53＊ / NL-63

＊NX-43EX required for NL-53/NL-43

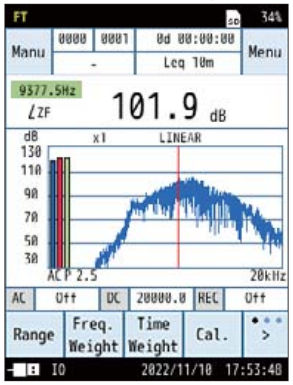
512 MB

The NX-43FT is supplied on the 512 MB SD card. The 512 MB SD card can be used as a memory card after installing the program.

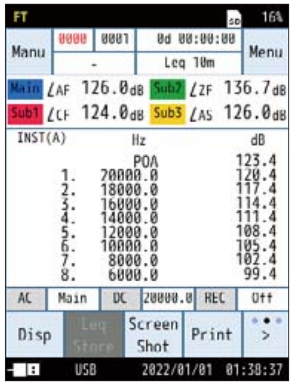
FFT analysis enables sound level measurements for each frequency.

The analysis frequency range is 20 kHz with frequency resolution of 2.5 Hz (8,000 spectrum lines). Saved analysis results can be loaded and shown in an overlay graph display together with current analysis data. The maximum zoom ratio is x40. The peak list display shows up to 8 peaks of frequency lines.

Examples of the display screen (tentative)



Analysis display (x1)



Peak list display

Octave, 1/3 octave real-time analysis program NX-43RT



Compatible models

NL-43* / NL-53*

*NX-43EX required for NL-53/NL-43

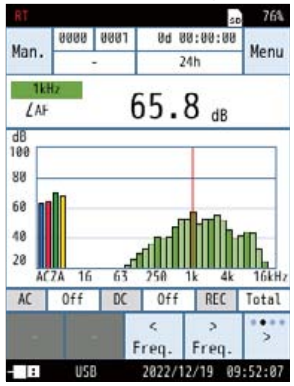
512 MB

The NX-43RT is supplied on the 512 MB SD card. The 512 MB SD card can be used as a memory card after installing the program.

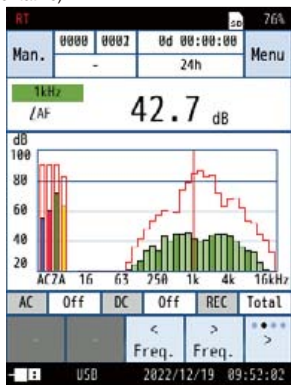
Both allow measurement compliant IEC 61260-1:2014 Electroacousutics – Octave-band and 1/N (fractional) - octave-band filters Part1:Specifications

It has a function to read out the saved analysis results, superimpose it on the graph being analyzed, display the graph of the NC curve required for evaluating indoor noise, and calculate and display the NC value. Using the environmental measurement data management software AS-60RT enables recalculation and data management on a computer. It is also possible to output the voltage (AC out, DC out) of the arbitrarily selected band.

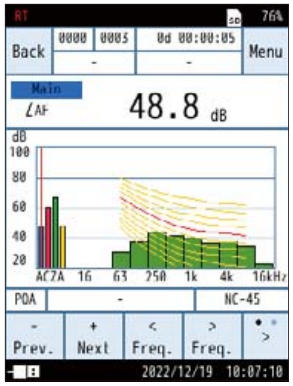
Examples of the display screen (tentative)



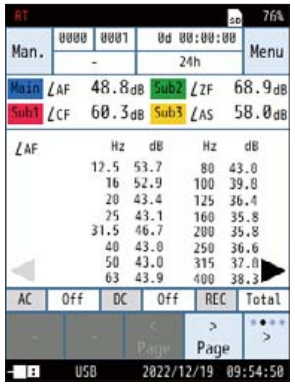
1/3 octave band analysis display



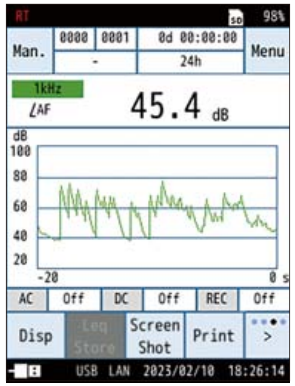
Overlay analysis display



NC curve display



Numeric display



Measurement display (Level-Time graph)

Octave, 1/3 octave real-time analysis program NX-63RT



Compatible models

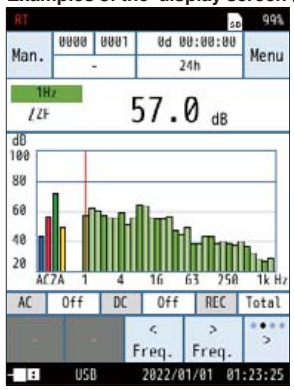
NL-63

512 MB

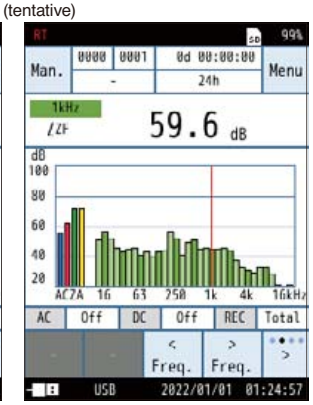
The NX-63RT is supplied on the 512 MB SD card. The 512 MB SD card can be used as a memory card after installing the program.

The NX-63RT enables octave, 1/3 octave band analysis from 1 Hz for insight on cause of low-frequency noise which is out of audible range. The instantaneous value can be saved as well as calculated data.

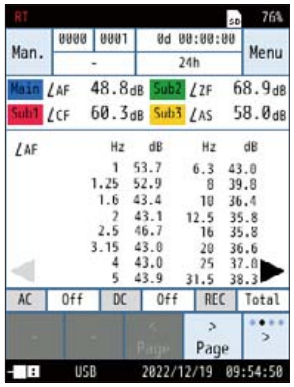
Examples of the display screen (tentative)



1/3 octave band analysis display (low frequency range)



1/3 octave band analysis display (high frequency range)



Numeric display (1 Hz～)

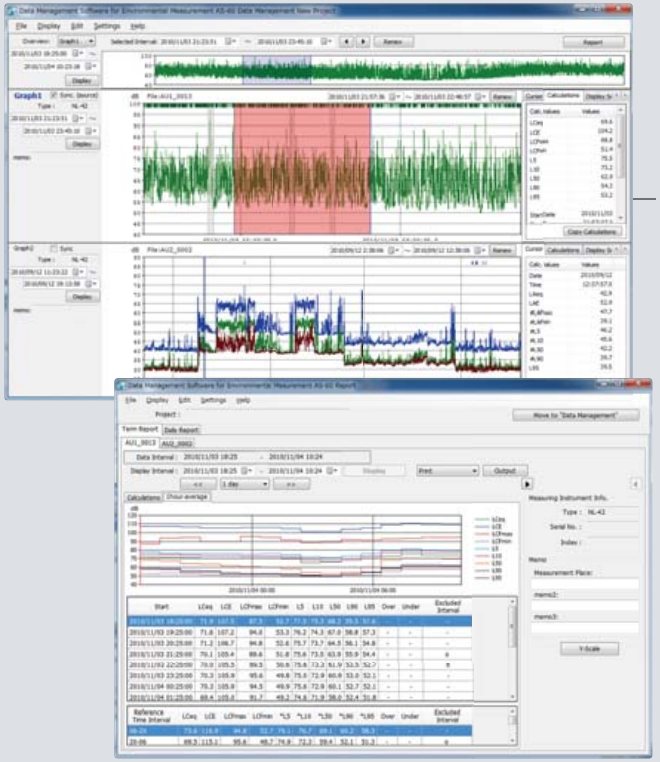
Complete software for environmental measurements

Data management software for environmental measurement AS-60

Free trial Softwares
Now available on our website

This software enables the graph display of measurement data, arithmetic processing, excluded sound processing, preparation of reports, file output, and playback of real sound files for data stored by sound level meters (NL-43/53/63, NL-42A/52A/62A, NL-42/52/62, NL-21/22/31/32).

- Easy to use
- Reports easy to prepare
- Simultaneous display of multiple data items (up to 8 data items)
- Data stored in a data recorder can be loaded (CSV file for DA-40 Viewer)
- Data combination



Report preparation screen

Recommended computer specifications (Common for AS-60/60RT)

CPU	Intel Core i5 2 GHz or higher
RAM	2 GB or more (4 GB recommended)
DISPLAY	XGA (1024 x 768) or more, at least 65 536 colors
OS	Microsoft Windows 10 Pro 64 bit, 11 Pro 64 bit

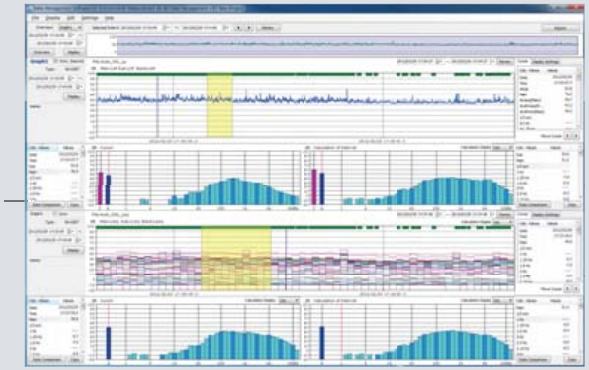
∗The AS-60/60RT software requires the USB digital rights management key (a hardware key bundled with software).

Data management software for environmental measurement

(Includes the octave and 1/3 octave data management software)

AS-60RT

In addition to the functions provided by the AS-60, the AS-60RT offers functions needed to manage data saved to computer by the NX-43RT/63RT, NA-28 or SX-A1RT.



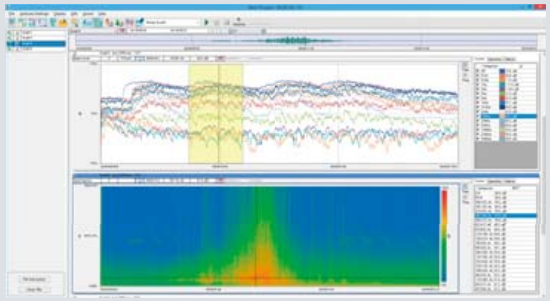
Supported models (Only auto store data are supported, excl. DA-40 Viewer)

Hardware \ Software	AS-60	AS-60RT
NL-43∗1/53∗1/63	●	●
NL-42A∗2/52A∗2/62A	●	●
NL-42∗2/52∗2/62	●	●
NL-21/22/31/32	●	●
DA-40 Viewer	●	●
SX-A1RT		●
NX-63RT		●
NX-43RT		●
NX-62RT		●
NX-42RT		●
NA-28		●

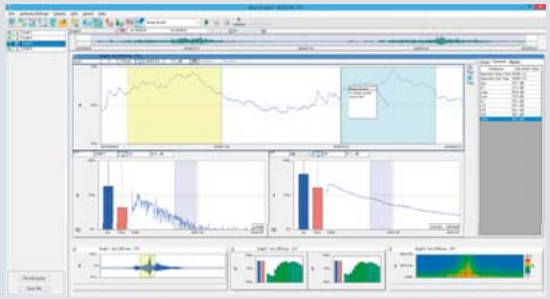
∗1 The NX-43EX is also needed. ∗2 The NX-42EX is also needed.

Waveform analysis software AS-70

This software allows you to load stored WAVE files from a RION sound level meter, vibration meter or data recorder. Octave, 1/3 octave, and FFT analyses can then be performed.
Playback of the real sound files is also possible.



Frequency analysis screen



Frequency analysis screen

Specifications

Waveform analysis	Calculations	Maximum value, Minimum value, Average value, RMS, Variance, Differential and integral calculus, HPF, LPF
Frequency weighting		Z, A, C, G, C to A, L_{VZ} (vertical) (JIS C 1510), L_{VXY} (horizontal) (JIS C 1510)
FFT analysis	Analysis points	32 to 65 536 points
	Display data	Power spectrum, Power spectral density, Spectrogram
Time weighting		10 ms, F, 630 ms, S, 10 s
Octave band analysis	Applicable standards	IEC 61260-1 : 2014 class 1 (JIS C 1513-1 : 2020 class 1)
	Analysis frequency range	Octave band 0.5 Hz to 16 kHz (16 bands) 1/3 octave band 0.4 Hz to 20 kHz (48 bands)

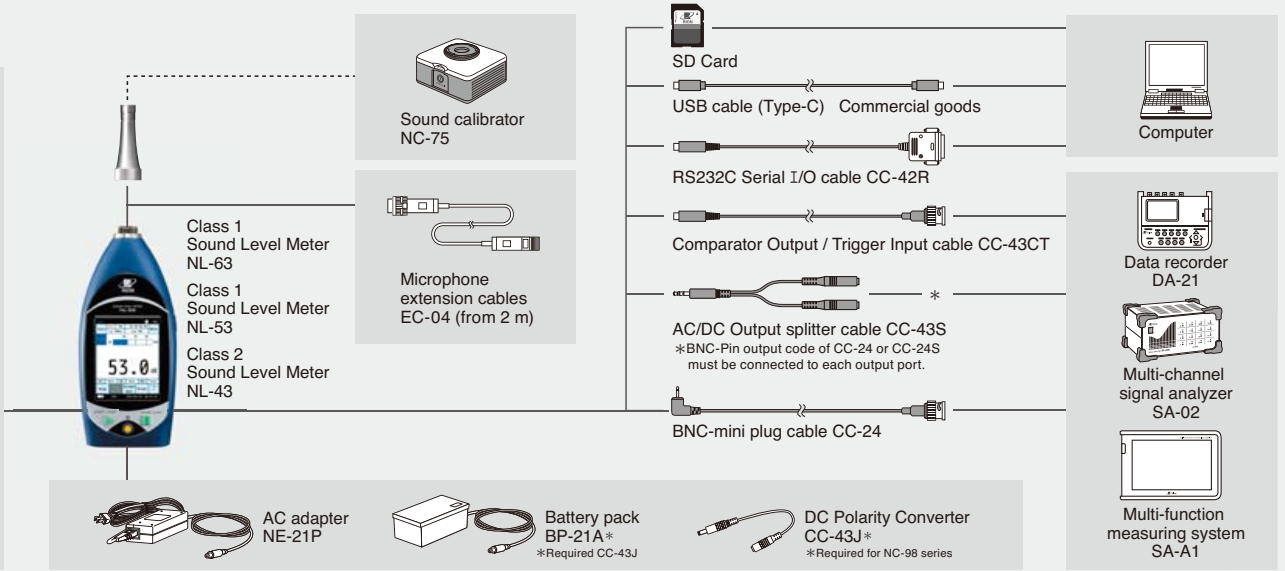
Recommended computer specifications

CPU	Intel Core i5 2 GHz or higher
RAM	2 GB or more (4 GB recommended)
HDD	20 GB free or more (100 GB or more recommended)
DISPLAY	XGA (1024 × 768) or more
OS	Microsoft Windows 10 Pro 64 bit, 11 Pro 64 bit

System construction

Optional program

- Extended function program NX-43EX (For NL-43/53 only)
- Waveform recording program NX-43WR
- FFT analysis program NX-43FT
- Octave, 1/3 octave real-time analysis program NX-43RT (For NL-43/53 only)
- Octave, 1/3 octave real-time analysis program NX-63RT (For NL-63 only)



Accessory



Carrying case



Peripheral devices

Sound calibrator NC-75



This Sound calibrator conforms to IEC 60942 (JIS C 1515), class 1, providing a level of performance sufficient for calibrating the precision sound level meter.

Specifications	
Nominal acoustic pressure level	94 dB
Nominal frequency	1 kHz

Pistonphone NC-72B



Compliant with IEC 60942: 2017 (JIS C 1515: 2020) class LS/M, class 1/M
Allows calibration with accuracy of ±0.10 dB.

Specifications	
Nominal acoustic pressure level	114 dB
Nominal frequency	250 Hz

Rain-protection windscreen WS-16



This screen protects the microphone against rain for a short period of time.
The rainproof performance of this windscreen is designed to satisfy the IPX3 water-resistant specifications.

All-weather windscreen WS-15



This windscreen is designed for outdoor installations. It helps to reduce wind noise and is equipped with rainproof features that satisfy the IPX3 water-resistant specifications. It is used with a microphone extension cable.

WS15006 mounting adapter and EC-04 series cable required separately

∗For All-weather windscreen WS-15, use of ST-91 is recommended.

Tripod ST-80



This stand can be used for general acoustic measurements.
The sound level meter and microphone can be mounted on the stand.

Specifications	
Max. Height	1460 mm∗
Min. Height	570 mm

∗Total height when mounted using a tripod extension column (optional): 2 060 mm

All-weather Windscreen Tripod ST-91



Designed for use with an all-weather windscreen, this tripod is suitable for unattended measurements.

Specifications	
Max. Height	1820 mm
Min. Height	1160 mm

Anechoic Box AR series



The anechoic box AR series offer superior sound insulation performance as well as reject the reflected noise in the box for accurate measurement. It's ideal for product inspections or measurements in the development of small precision instruments. Compact dimensions allow positioning near your workspace.
The dimensions and optional features can be customized.

■ Specifications







			Class 1 Sound Level Meter NL-63	Class 1 Sound Level Meter NL-53	Class2 Sound Level Meter NL-43
Applicable standards			IEC 61672-1: 2013 class 1, ISO 7196: 1995, ANSI/ASA S1.4-2014/Part1 class 1, JIS C 1509-1:2017 class 1, JIS C 1516: 2020 class 1 ISO 7196: 1995	IEC 61672-1: 2013 class 1, ANSI/ASA S1.4-2014/Part1 class 1, JIS C 1509-1: 2017 class 1, JIS C 1516: 2020 class 1	IEC 61672-1: 2013 class 2, ANSI/ASA S1.4-2014/Part1 class 2, JIS C 1509-1: 2017 class 2, JIS C 1516: 2020 class 2
			CE Marking ▪ EMC Directive Directive 2014/30/EU EN 61326-1:2013 ▪ RoHS Directive Directive 2011/65/EU EN IEC 63000:2018 ▪ Low Voltage Directive Directive 2014/35/EU EN 61010-1:2010/A1:2019 UKCA Marking, China RoHS, KC mark, VCCI Class B	●	●
Measurement function			Simultaneous measurement of up to four conditions (Main channel, Sub1 to Sub3 channels) with selected time weighting and frequency weighting	●	●
	Instantaneous value		Time-weighted sound pressure level L_p	●	●
	Calculated value		Equivalent continuous sound level: L_{eq}, I-time-weighted equivalent continuous sound level: L_{Ieq}, Moving L_{eq}: $L_{eq,\,mov}$ Sound exposure level: L_E, Maximum sound level: L_{max}, Minimum sound level: L_{min}, Percentile sound level: L_N, Peak sound leve: L_{peak}, Takt-max sound level: L_{tm5}	Equivalent continuous sound level: L_{eq}, I-time-weighted equivalent continuous sound level: L_{Ieq}*2, Moving L_{eq}: $L_{eq,\,mov}$*2, Sound exposure level: L_E, Maximum sound level: L_{max}, Minimum sound level: L_{min}, Percentile sound level: L_N, Peak sound level: L_{peak}, Takt-max sound level: L_{tm5}	
Microphone	Type		UC-59L	UC-59	UC-52
	Sensitivity level (representative value)		−27 dB	−27 dB	−33 dB
Measurement level range			A-weighting: 25 dB to 138 dB, C-weighting: 33 dB to 138 dB, G-weighting: 43 dB to 138 dB, Z-weighting: 50 dB to 138 dB, C-weighted peak sound level: 60 dB to 141 dB, Z-weighted peak sound level: 65 dB to 141 dB	A-weighting: 25 dB to 138 dB, C-weighting: 33 dB to 138 dB, Z-weighting: 38 dB to 138 dB, C-weighted peak sound level: 55 dB to 141 dB, Z-weighted peak sound level: 60 dB to 141 dB	
Self-generated noise	A-weighting		17 dB or less	17 dB or less	19 dB or less
	C-weighting		25 dB or less	25 dB or less	27 dB or less
	Z-weighting		42 dB or less	30 dB or less	32 dB or less
	G-weighting		35 dB or less	—	
Measurement frequency range			1 Hz to 20 kHz	10 Hz to 20 kHz	20 Hz to 8 kHz
Frequency weighting			A, C, G, Z	A, C, Z	
Filter	Digital processing		High-pass filter Low-pass filter Cutoff frequency: 100 Hz, 500 Hz	—	
Time weighting			F (Fast), S (Slow), I (Impulse), 10 s	F (Fast), S (Slow), I (Impulse)*2	
Input range			Automatic switching	●	●
Bar graph display	Upper range		70 dB to 130 dB can be set in 10 dB increments	●	●
	Lower range		20 dB to 60 dB can be set in 10 dB increments	●	●
Sampling interval			L_p, L_{eq}, L_E, L_{max}, L_{min}, L_{peak}, L_{Ieq}: 20.8 µs (Sampling frequency: 48 kHz), L_N: 100 ms (L_p), 1 s (L_{eq}), $L_{eq,\,mov}$: 1 s (L_{eq}), L_{tm5}: 5 s (L_{max})	●	●
Calibration			A reference signal is input using sound calibrator NC-75/NC-74 or pistonphone NC-72B/NC-72A, and the signal input sensitivity is adjusted. Up to 30 calibrations can be managed in the calibration history, and saved to an SD card	●	●
Reference signal output	Frequency		1 kHz	●	●
to external devices	Output level		Bar graph upper limit −6 dB	●	●
Correction function	Windscreen correction function		Corrects the influence on the frequency response when the windscreen is installed.	●	●
	Diffuse sound field correction function		Corrects the influence on the frequency response when used in a diffuse sound field.	●	●
Delay time			After the operation to start measuring, the device starts measuring after the specified time elapses (OFF, 1, 3, 5, 10 s)	●	●
Back erase function			Excludes, from the calculation, data from the specified time before using this function (OFF, 1, 3, 5 s , May not be used together with auto store mode and waveform recording)	●	●
Display			Backlit 3.5-inch TFT-LCD QVGA *With touch panel function (resistive membrane type) Numerical display update frequency: 1 s、Graph showing time and sound level / bar graph refresh interval : 100 ms	●	●
Store	Manual store		Data for measurement results are stored manually in single address increments.	●	●
		Number of data	Internal memory: max. 1000 sets SD Card: depends on the capacity of the SD Card*1	●	●
		Measurement time	10 s, 1 , 5 , 10 , 15 , 30 m, 1 , 8 , 24 h, User Setting (1 s to 24 h)	●	●
	Auto store*2		Instantaneous values (L_p store) and processed values (L_{eq} store) are stored continuously on the SD card and automatically at preset intervals.	●	●
		L_p store interval	Off, 10 ms, 25 ms, 100 ms, 200 ms, 1 s	●	●
		L_{eq} calculation interval	Off, 10 s, 1, 5, 10, 15, 30, 1, 8, 24 h, or User Setting (Min. 1 s to max. 24 h)	●	●
		Number of data	SD card: Data can be saved with store names from 0000 to 9999	●	●
		Measurement time	10 s, 1, 5, 10, 15, 30, 1, 8, 24 h, User Setting (Min. 1 s to max 1000 h), Continue (Perform measurements until the SD card runs out of space*1)	●	●

●● : Same content as NL-63

●● : Same content as NL-63

Data format			CSV file	●	●
Data recall			Browses stored data and screenshot images	●	●
Memorizing Settings			Setting information can be saved to the internal memory or SD card and recalled at startup or at a specified time	●	●
Waveform recording＊2＊3	File format		Uncompressed waveform WAVE file	●	●
	Sampling frequency		Select 48 kHz, 24 kHz, 12 kHz, 1200 Hz or 240 kHz	Select 48 kHz, 24 kHz or 12 kHz	
	Data length		Select 24 bit or 16 bit	●	●
Outputs	AC output		Output voltage: 1 V rms at the output level range / Enables simultaneous output of DC output and AC output	●	●
	DC output		Output voltage: 2.5 V, 25 mV/dB at the output level range	●	●
	Output range		Can be linked to the bar graph upper limit, or set from 70 dB to 130 dB in 10 dB increments	●	●
	Comparator＊2		The comparator output turns on when the specified channel exceeds the set level (Maximum input voltage 24 V, internal resistance approx. 480 Ω, Allowable power dissipation 300 mW)	●	●
RS-232C Communication			Measurement values can be acquired and settings can be changed by using communication commands	●	●
USB	Communication		Measurement values can be acquired and settings can be changed by using communication commands	●	●
	Data transfer		Enables the transferring of data by making the computer recognize the SD card as a removable disk	●	●
LAN＊2	Communication		Measurement values can be acquired and settings can be changed by using communication commands	●	●
	Data transfer		Data on an SD card can be transfered to a computer	●	●
	Web browser display		Via a web browser, settings can be changed and measured values displayed. Via Google Chrome on PC, audio can be played.※3	●	●
Data continuous output＊2	Type of data	Instantaneous value	L_p	●	●
		Processed value	L_{eq}, L_{max}, L_{min}, L_{peak}	●	●
	Output interval		100 ms (0.1 s)	●	●
Power supply			4 × AA batteries, power supply to DC jack and USB port	●	●
	Operating time (at 23°C, ECO setting)		Alkaline battery LR6: Approx. 12 hours Ni-MH rechargeable battery HR6: Approx. 12 hours Portable charger: Approx. 20 hours of power at 5000 mAh ＊When making Auto store mode and ECO settings The operating time varies depending on the device settings and the battery manufacturer	Alkaline battery LR6: Approx. 16 hours Ni-MH rechargeable battery HR6: Approx. 16 hours Portable charger: Approx. 24 hours of power at 5000 mAh ＊When making Auto store mode＊2 and ECO settings The operating time varies depending on the device settings and the battery manufacturer	
	AC adapter		NE-21P (Input: 100 to 240 V AC, 50/60 Hz, Output: 12 V DC)	●	●
	External power supply voltage		5.7 V to 15 V (rated voltage 12 V) USB port: 5 V (See precautions on mobile battery usage)	●	●
	Primary side (100 V side) power consumption		Approx. 3 W (With NE-21P usage)	●	●
Operating temperature and humidity range	Temperature		−10 °C to 50 °C	●	●
	Humidity		10 % to 90 % RH (no condensation)	●	●
Dustproof and waterproof performance＊4			IP rating: IP54 (excluding microphone)	●	●
Dimensions, weight			Approx. 265 mm (H) × 83.5 mm (W) × 34.5 mm (D), approx. 400 g (including batteries)	Approx. 258 mm (H) × 83.5 mm (W) × 34.5 mm (D), approx. 400 g (including batteries)	
Accessories			Carrying case ×1, Windscreen WS-10 ×1, Windscreen fall prevention rubber ×1, Hand strap ×1, Size AA alkaline batteries ×4, SD card 512 MB	Carrying case ×1, Windscreen WS-10 ×1, Windscreen fall prevention rubber ×1, Hand strap ×1, Size AA alkaline batteries ×4, SD card 512 MB (NX-43EX preinstalled model only)	

Options

Product name	Product number	Compatible models
Extended Function Program (Inst.on 512 MB SD card)	NX-43EX	NL-43/53
Waveform Recording Program (Inst.on 2 GB SD card)	NX-43WR	NL-43/53/63
Octave-1/3 Octave Real-time Analysis Program (Inst.on 512 MB SD card)	NX-43RT	NL-43/53
Octave-1/3 Octave Real-time Analysis Program (Inst.on 512 MB SD card)	NX-63RT	NL-63
FFT Analysis Program (Inst.on 512 MB SD card)	NX-43FT	
512 MB SD Card	MC-51SD1	
2 GB SD Card	MC-20SD2	
32 GB SD Card	MC-32SP3	
AC adapter (100 V to 240 V AC)	NE-21P	
Battery pack (Using four D alkaline batteries)	BP-21A	
Microphone extension cable	EC-04 series	
BNC pin output cable	CC-24/CC-24S	NL-43/53/63
Printer cable	CC-42P	
RS-232C serial I/O cable	CC-42R	
Comparator Output / Trigger Input Cable	CC-43CT	
AC/DC Output Splitter Cable	CC-43S	
DC Polarity Converter	CC-43J	
USB cable (Type-C)	—	
Sound calibrator	NC-75	

Product name	Product number	Compatible models
Pistonphone	NC-72B	
Dedicated soft case	—	
Rubber cover for external power use	—	
All-Weather Windscreen	WS-15	
Windscreen mounting adapter	WS15006	NL-43/53/63
Rain-protection Windscreen	WS-16	
Tripod for sound level meter	ST-80	
Tripod extension rod (For ST-80)	ST-80-100	
Tripod for All-Weather Windscreen	ST-91	
Data Management Software for Environmental Measurement	AS-60	
Data Management Software for Environmental Measurement (Includes the Octave and 1/3 Octave Data Management Software)	AS-60RT	See.p.8
Waveform Analysis Software	AS-70	

＊1 Use Rion fully guaranteed products. ＊2 NX-43EX required for NL-43/NL-53 (sold separately) ＊3 NX-43WR required (sold separately).
＊4 Protection against harmful dust and water splashing from any direction.

Precautions on portable charger usage

Avoid portable charger with functions that monitor device power consumption and are capable of interrupting the power supply.
The power consumption of NL-43/53/63 is relatively low compared to smartphones; portable charger equipped with such features may erroneously terminate power supply to the unit.

RION

JCSS 0197

RION CO., LTD. is recognized by the JCSS which uses ISO/IEC 17025 as an accreditation standard and bases its accreditation scheme on ISO/IEC 17011. JCSS is operated by the accreditation body (IA Japan) which is a signatory to the Asia Pacific Accreditation Cooperation (APAC) as well as the International Laboratory Accreditation Cooperation (ILAC). The Quality Assurance Section of RION CO., LTD. is an international MRA compliant JCSS operator with the accreditation number JCSS 0197.

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RION CO., LTD.
https://rion-sv.com/

3-20-41, Higashimotomachi, Kokubunji, Tokyo 185-8533, Japan
Tel: +81-42-359-7888 Fax: +81-42-359-7442

Exploring the possibility of Noise Measurement

NL-43 / NL-53 / NL-63



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