The DS-3000 series can perform real-time analysis of noise and vibration generated from products in various industries such as vehicles, railways, home appliances or plant facilities. “Quick reference of the required analysis screen” “easy checking of the measurement condition”, such quick and easy responses are one of the most important needs for on-site measurement. The hardware at overwhelming processing speed and easy handling software of the DS-3000 series exactly satisfy the needs.

DS-3000 series

Speedy | Tough | Small size + Easy-to-use

HARDWARE

SOFTWARE

There is increasing interest in sound and vibration analysis to add value to products.

Data recording

The DS-3000 series can perform multi-channel data recording of various sound or vibration. Accurate and wide range of simultaneous multi-channel data recording owing to the wide dynamic range and high-speed processing.

 FFT Analysis (Fast Fourier Transform Analysis)

FFT analysis takes apart the time-axis waveform to each frequency component and is useful for watching the level of the each component. This analysis is effective to watch resonance frequency of vibration or details of sound frequency component.

Real-time Octave Analysis

“1 octave” represents the double of the frequency, and it means that sound of second octave makes the sound with double pitch. The result of octave analysis is close to human hearing sense because human ears have logarithmic feature. Generally the 1/3 octave analysis (one-third of an octave) is used in the sound analysis.

Tracking Analysis

In sound or vibration analysis from various rotating objects, it is necessary to know which number of rotations makes the noise louder. Then each component level for the rotation can be analyzed by recording rotation information (pulse vibration etc.) as well as the sound or vibration signals.
**Feature. 1 Speedy**

Fast real-time processing & multi-channel recording

Supporting up to 16 ch of real-time analysis, up to 32 ch of data recording of 20 kHz range (audio frequency band)

**Feature. 2 Easy**

Software design placed high value on-site measurement

All the installed analysis functions can be used quickly by activating the software. With the help of GUI*, you can change various measurement conditions easily as you watch the measurement screen in real time. To support speedy and smooth measurement on site, commonly-used measurement setup items can be placed as tabs on the window.

**Feature. 3 Flexible**

Unit connecting function “FRAME LINK”

“FRAME LINK” provides flexible building of multi-channel measurement system only by connecting two units of the DS-3000 series via a cable and interfaces.

*The DS-0391(interface) and the AX-9035(cable) are required.

**Feature. 4 Reliable**

Simultaneous processing of real-time analysis and recording

This function enables recording of backup data automatically while performing real-time analysis.

*FFT analysis:
DS-0321 and DS-0350 are required.

*Octave analysis:
DS-0323 and DS-0350 are required.

DS-0321: FFT Analysis
DS-0323: 1/1 and 1/3 Real-time Octave Analysis
DS-0350: Recording function

---

**System Configuration**

- **Sensors**
  - Vibration: NP series
  - Sound: MI/LA series
  - Rotation: HT series

- **Hardware**
  - DS-3000 series
  - FRAME LINK
  - ONO-LINK3

- **Software**
  - DS-3000 series
  - FFT
  - RTA
  - Recording

DS-3000 series Sound and Vibration Analysis system with fast processing in real time
1 Measuring tiny sound

FFT Analysis of tiny sound  A hard disk of a note PC etc.

As fanless design of the DS-3000 series hardware has little sound or vibration effect on analysis, it enables accurate analysis of very tiny sound such as activating sound of a hard disk, even though it is set nearby the measuring place.

* 1: Cooling fan is provided as standard with the system of 5 units or more at the rear of the DS-3000 series.

System configuration

2 Evaluation of a finished car on a measurement bench

Multi-point synchronized measurement of two or more parameters  A finished vehicle etc.

The following example shows how to observe various parameters of a finished vehicle on experimental measurement bench.

Using the FRAME LINK function of the DS-3000 series makes it easy to build up multi-channel measurement system up to 64 channels and record the measured data at multipoint. The DS-3000 series system can monitor sound, vibration, rotation speed, torque, load or many other parameters thoroughly.

By reading the recorded data to the OS-2000 series, you can observe the data simultaneously in time series on one screen and perform multifaceted and efficient evaluation of the finished vehicle.

System configuration
3 Tracking analysis of low rotation

Tracking analysis of rotating object with low-speed  A propeller shaft in a vehicle, a power generator turbine etc.

The DS-3000 series enables tracking analysis from 60 to 240,000 r/min rotation speed and can be used for measurement of low-speed rotation from 100 r/min or less. Up to 8 tracking lines can be displayed as overlapping display such as sound in changing rotation speed or fluctuation of order component in vibration (tracking diagram) etc.

*2: The range of rotation at 1 P/R.

4 Measuring environmental noise

Measuring equivalent sound level (Leq)  A wind-generated power etc.

Growing concern over environmental noise today, the DS-3000 series responds to demands of quantifying the sound level in various forms such as equivalent sound level (Leq)*3, time trend of O.A or 1/3 octave band level.

*3: Equivalent sound level: Quantifies the noise environment as a single value of sound level for any desired duration.

Hardware

(DS-3000 series)

Software

Sft

rdwa
The software of the DS-3000 series responds easily and quickly to unexpected phenomena occurred during on-site measurement, such as environmental noise, disturbance vibration or change of vibrating state. Each software adopts the common operation behavior and it helps the best-suited setup for the measurement condition easily and quickly.

Making best suited setup for on-site measurement

The software of the DS-3000 series responds easily and quickly to unexpected phenomena occurred during on-site measurement, such as environmental noise, disturbance vibration or change of vibrating state. Each software adopts the common operation behavior and it helps the best-suited setup for the measurement condition easily and quickly.

- **Graph display window**
  The size of a displayed screen can be changed easily in a graph window by using a mouse at the graph layout selection button. \((M \times N)\)
  Multiple screens can be displayed simultaneously in one window, up to 64 screens \((8 \times 8)\). Various kinds of measurement waveform, such as time waveform or frequency spectrum are displayed in this window.

- **Configuration window**
  The voltage range, frequency range or others can be set in this configuration window. Setup items related to measurement are organized in tree structure.
  You can change setup conditions while checking the graph under measurement in real time. The configuration window can be undisplayed by the button to enlarge the graph display area. (*Undisplay", "always displaying", "displaying only the cursor or insertion pointer is on the window" can be selected.)

- **Custom window**
  Commonly-used measurement setup items can be placed as tabs on the window selected from the configuration window. It enables quick checking or changing of measurement conditions. Up to three tabs can be made depending on a measurement object or user. Just selecting a tab makes easy and quick measurement on site. "Display" or "undisplay" can be selected.
### Specification

#### DS series Multi-Channel Data Station

<table>
<thead>
<tr>
<th>Function</th>
<th>Item</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measurement general function</strong></td>
<td><strong>Input voltage range of measurement signal</strong></td>
<td>10 mVrms to 10 Vrms (7-range, 10 dB-step)</td>
</tr>
<tr>
<td></td>
<td><strong>Number of input terminals / channels of measurement signal</strong></td>
<td>BNC (voltage input/CMCLK selectable) • 2 to 32ch (2ch-step)</td>
</tr>
<tr>
<td></td>
<td><strong>Frequency range</strong></td>
<td>Base band Audio frequency band</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 mHz to 40 kHz (57 bands)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>96 kHz to 6 kHz (5 bands)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>88.2 kHz to 5.5125 Hz (5 bands)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>64 kHz to 4 kHz (5 bands)</td>
</tr>
<tr>
<td><strong>Dynamic range</strong></td>
<td></td>
<td>110 dB (40 kHz range, 0 dBW range, when analyzed at 2048 points)</td>
</tr>
<tr>
<td><strong>Sound filter</strong></td>
<td></td>
<td>A and C weightings (provided as standard)</td>
</tr>
<tr>
<td></td>
<td><strong>TEDS</strong></td>
<td>Applicable, Ver.1.0 (accelerometer, power sensor)</td>
</tr>
<tr>
<td><strong>External sampling function</strong></td>
<td><strong>Input signal</strong></td>
<td>DC to ±12 V, 0 to 300 kHz (with out of band filter)</td>
</tr>
<tr>
<td></td>
<td><strong>Detection level / slope</strong></td>
<td>-12 to +12 V (0.025 V-step) / + (rising) or - (falling)</td>
</tr>
<tr>
<td></td>
<td><strong>Input pulse / 1 rotation</strong></td>
<td>0.5 to 1024 P/R, 1 to 1024 with frequency dividing function</td>
</tr>
<tr>
<td><strong>External trigger function</strong></td>
<td><strong>Input signal</strong></td>
<td>DC to ±12 V, 0 to 300 kHz (with out of band filter)</td>
</tr>
<tr>
<td></td>
<td><strong>Detection level / slope</strong></td>
<td>-12 to +12 V (0.025 V-step) / + (rising) or - (falling)</td>
</tr>
<tr>
<td></td>
<td><strong>Trigger mode</strong></td>
<td>Repeat, single, one-shot depending on software</td>
</tr>
<tr>
<td><strong>Signal output function</strong></td>
<td><strong>Output signal</strong></td>
<td>±10 mV to ±10 V, 0 to 40 kHz, offset ±10 V</td>
</tr>
<tr>
<td></td>
<td><strong>Number of output channels</strong></td>
<td>0 to 5 ch</td>
</tr>
<tr>
<td></td>
<td><strong>Number of output FFT points</strong></td>
<td>64 to 16384 points (power-of-two step)</td>
</tr>
<tr>
<td></td>
<td><strong>Output signal</strong></td>
<td>Sine wave, swept sine, random (decorrelation between channels), pseudo random, impulse, octave band noise, pink noise, recorded data</td>
</tr>
<tr>
<td></td>
<td><strong>Burst function</strong></td>
<td>Provided (single, output time / time of output interval / number of cycles can be specified.)</td>
</tr>
<tr>
<td></td>
<td><strong>Built-in method</strong></td>
<td>DS-0371 (1 ch module): Built in a main unit DS-0372 (2 ch unit): Up to 2 units can be built in. (The DS-0371 and DS-0372 can be built in the same system.)</td>
</tr>
<tr>
<td><strong>Starting or operating application software</strong></td>
<td><strong>Starting procedure</strong></td>
<td>FFT analysis (DS-0321), tracking analysis. (DS-0322), real-time octave analysis (DS-0323), throughput disk function (=recording, DS-0350) can be selected on the screen. Recording function (DS-0350) is operated with FFT or real-time octave analysis.</td>
</tr>
<tr>
<td></td>
<td><strong>Basic operation</strong></td>
<td>Operated by menu bar, tool bar and configuration window. The layout / size of the configuration window and the custom window can be changed. The menu bar displays the configuration window. Commonly-used measurement setup items can be placed as tabs on the window (custom window) selected from the configuration window.</td>
</tr>
<tr>
<td></td>
<td><strong>On-line and off-line analysis</strong></td>
<td>On-line analysis: Performs analysis while operating the DS-3000 hardware. Off-line analysis: Analyzes recorded time sampling data. Both on-line and off-line analysis are available with the on-line analysis license.</td>
</tr>
<tr>
<td></td>
<td><strong>Measurement window</strong></td>
<td>Monitor data and measurement data are displayed as multiple windows on the screen. Up to 10 measurement windows can be made and displayed as overlapping display. (FFT / real-time octave / tracking)</td>
</tr>
<tr>
<td></td>
<td><strong>List function</strong></td>
<td>Peak, harmonic (total harmonic, distortion rate), user defined list</td>
</tr>
<tr>
<td><strong>Recording function (Throughput DS-0350(option))</strong></td>
<td><strong>Maximum recording time</strong></td>
<td>22 minutes (40 kHz range / 16 ch), 16 bits with rotation information</td>
</tr>
<tr>
<td></td>
<td><strong>Number of ranges / channels</strong></td>
<td>40 kHz range / 16 ch, 20 kHz range / 32 ch</td>
</tr>
<tr>
<td></td>
<td><strong>Sampling frequency</strong></td>
<td>Frequency range=2.56 Hz</td>
</tr>
<tr>
<td></td>
<td><strong>File format</strong></td>
<td>ORF file (Ono Sokki original format): Rotation information can be recorded.</td>
</tr>
<tr>
<td></td>
<td><strong>Unit connecting interface (FRAME LINK function)</strong></td>
<td>Connects up to two units for multi-channel measurement system. (32 ch + 32 ch = 64 ch max.)</td>
</tr>
<tr>
<td></td>
<td><strong>Conversion function (file export function)</strong></td>
<td>Standard: Converts to WAV, TXT DADiSP, MATLAB, UNIVERSAL format.</td>
</tr>
</tbody>
</table>
### Frequency range
- 4 mHz to 40 kHz

### FFT real-time rate
- 40 kHz range / 8 ch, 20 kHz range / 16 ch, 10 kHz range / 32 ch (when internal sampling with FFT frame length 2048 points or less)

### Number of FFT samplings (number of spectrum lines)
- 64 points (25 lines), 128 points (50 lines), 256 points (100 lines), 512 points (200 lines), 1024 points (400 lines), 2048 points (800 lines), 4096 points (1600 lines), 8192 points (3200 lines), 16384 points (6400 lines)

### Function window
- Rectangular / Hanning / Flat-top / Force / Exponential / User-defined

### Averaging function
- Time-axis summation averaging, time-axis exponential averaging, power spectrum summation averaging, power spectrum exponential averaging, etc.

### Analysis function (time-axis)
- Time waveform, auto-correlation function, cross-correlation function, impulse response, cepstrum

### Analysis function (frequency-axis)
- Power spectrum, Fourier spectrum, lifter spectrum, cross spectrum, frequency response function, coherence function, coherence output power

### Calculation function (time-axis statistical processing)
- Mean value, absolute mean value, rms value, standard deviation, kurtosis, form factor, crest factor, skewness, maximum value, minimum value

### Analysis screen display
- Up to 64 screens / 1 window (overlapping display in a window), up to 10 windows, Up to 64 screens / 1 window with list display

### Cursor function
- Search cursor, peak cursor, delta cursor

### Unit connecting interface (FRAME LINK function)
- Connects up to two units for multi-channel measurement system. (32 ch + 32 ch = 64 ch max.)

### Simultaneous analysis and recording function
- Provided

### FFT Analysis function
- **DS-0321**
  - **Option**
  - **Hardware**
  - **Software**

### Analysis screen display
- Up to 64 screens / 1 window (overlapping display in a window), up to 10 windows, Up to 64 screens / 1 window with list display

### Schedule function
- Rotation schedule (provided automatic falling determination function), time schedule (time trend)

### Upper / lower-limit setting of number of rotations
- **UP (lower limit -> upper limit), DOWN (upper limit -> lower limit), UP / DOWN (lower limit -> upper limit -> lower limit), DOWN / UP (upper limit -> lower limit -> upper limit)**

### Calculation function
- Instantaneous value, maximum value / maximum value hold / minimum value hold / power averaging value / power sum value / Linear Leq value of every 1 second

### Analysis screen display
- Up to 64 screens / 1 window (overlapping display in a window), up to 10 windows

### Unit connecting interface (FRAME LINK function)
- Connects up to two units for multi-channel measurement system. (32 ch + 32 ch = 64 ch max.)

### Option
- **DS-0324 (1/N Real-time octave function), DS-0322 (Tracking analysis function)**

---

### Real-time octave analysis function
- **DS-0223**

### Octave type
- 1/1 octave and 1/3 octave (filter: 6-order Butterworth)

### Time constant
- 10 ms, 35 ms, 125 ms (FAST), 630 ms, 1 s (SLOW), 8 s, IMPULSE (rising: 35 ms / falling: 1.5 s)

### Frequency range
- 0.8 to 20 kHz (1/1 octave), 1 to 16 kHz (1/3 octave)

### Calculation function
- Instantaneous value, maximum value / maximum value hold / minimum value hold / power averaging value / power sum value / Linear Leq value of every 1 second

### Analysis screen display
- Up to 64 screens / 1 window (overlapping display in a window), up to 10 windows

### Unit connecting interface (FRAME LINK function)
- Connects up to two units for multi-channel measurement system. (32 ch + 32 ch = 64 ch max.)

### Simultaneous analysis and recording function
- Provided

---

### Tracking analysis type
- Phase tracking, amplitude tracking

### Sampling method
- Constant width tracking (internal sampling): Frequency range is same as its FFT analysis. Constant ratio tracking (external sampling): up to maximum analysis orders

### Number of FFT sampling points
- 64 to 16384 points (power-of-two step)

### Averaging function
- Power spectrum exponential averaging, Fourier spectrum exponential averaging

### Maximum number of analysis orders
- 800 orders (6.25, 12.5, 25, 50, 100, 200, 400, 800)

### Maximum number of blocks
- 1000 blocks (100, 200, 400, 800, 1000)

### Analysis screen display
- Up to 64 screens / 1 window (overlapping display in a window), up to 10 windows, Up to 64 screens / 1 window with list display

### Number of displaying tracking diagrams
- 8 lines (MAXord or O.A each)

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Simultaneous analysis and recording makes the decreases of the number of recording channels or analysis frequency ranges. For more details, please contact your nearest distributor or send an e-mail to us (overseas@onosokki.co.jp).
### Specification

<table>
<thead>
<tr>
<th>Function</th>
<th>Item</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Specification when using unit connecting function</strong></td>
<td><strong>DS-0391 (option)</strong></td>
<td><strong>FFT analysis real-time rate</strong>&lt;br&gt;40 kHz range / 8 ch (4 ch + 4 ch), 20 kHz range / 16 ch (8 ch + 8 ch) (when internal sampling at 2048 points)</td>
</tr>
<tr>
<td><strong>Recording function</strong></td>
<td><strong>recording range/channel</strong></td>
<td><strong>20 kHz range / 32 ch (16 ch + 16 ch), 10 kHz range / 64 ch (32 ch + 32 ch) (when internal sampling at 2048 points)</strong></td>
</tr>
<tr>
<td><strong>Others</strong></td>
<td><strong>Monitor output</strong></td>
<td>Output signal standardized the input signal by voltage range. (1 Vrms max) Monitor signal after filtered is output when sound filter is used.&lt;br&gt;* Ø 3.5 stereo-mini jack, 2 terminals/unit</td>
</tr>
<tr>
<td><strong>Maximum number of units</strong></td>
<td>9 units (1 main unit+8 input/output unit)</td>
<td></td>
</tr>
<tr>
<td><strong>Accessory</strong></td>
<td><strong>Instruction manual, AC adapter, power cable for AC adapter</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Applicable DS</strong></td>
<td>Microsoft® Windows® 7, Vista® (SP2 or later), XP (SP2 or later) ⃝ 32 bit version only</td>
<td></td>
</tr>
<tr>
<td><strong>Applicable NET Framework</strong></td>
<td>.NET Framework 3.5 or later</td>
<td></td>
</tr>
<tr>
<td><strong>PC interface</strong></td>
<td>High-speed interface “ONO-LINK 3”&lt;br&gt;(For desktop type PC: PCI Express, for notebook type PC: CardBus or Express Card 34 / 54)</td>
<td></td>
</tr>
<tr>
<td><strong>Power voltage / power consumption</strong></td>
<td>100 to 240 VAC, 15 VDC / 25 to 95 VA (when 15 VDC)</td>
<td></td>
</tr>
<tr>
<td><strong>Outer dimensions</strong></td>
<td>269 (W) × 71 to 267 (H) × 217 (D) mm including protector</td>
<td></td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>2.2 kg (4 ch system) to 8.2 kg (32 ch system)</td>
<td></td>
</tr>
<tr>
<td><strong>Cooling fan</strong></td>
<td>Required for a system of 5 units or greater. (Provided as standard with the system of 5 units or more.)</td>
<td></td>
</tr>
</tbody>
</table>

### Outer Dimensions

- **Front view**
- **Side view**
- **Rear view**
- **Top view**
# DS-3000 Series

## Sound and Vibration Real-time Analysis System

<table>
<thead>
<tr>
<th>Software</th>
<th>Model name</th>
<th>Product name</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS-0321</td>
<td></td>
<td>FTT Analysis</td>
</tr>
<tr>
<td>DS-0321L</td>
<td></td>
<td>FTT Analysis (off-line license)</td>
</tr>
<tr>
<td>DS-0322</td>
<td></td>
<td>Tracking Analysis</td>
</tr>
<tr>
<td>DS-0323</td>
<td></td>
<td>1/1 and 1/3 Real-time Octave Analysis</td>
</tr>
<tr>
<td>DS-0323L</td>
<td></td>
<td>1/1 and 1/3 Real-time Octave Analysis (off-line license)</td>
</tr>
<tr>
<td>DS-0324</td>
<td></td>
<td>1/N Real-time Octave Analysis</td>
</tr>
<tr>
<td>DS-0350</td>
<td></td>
<td>Recording function</td>
</tr>
</tbody>
</table>

## Hardware

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Model name</th>
<th>Product name</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS-3100</td>
<td></td>
<td>Main unit</td>
</tr>
<tr>
<td>DS-3102</td>
<td></td>
<td>2 ch main unit</td>
</tr>
<tr>
<td>DS-3104</td>
<td></td>
<td>4 ch main unit</td>
</tr>
<tr>
<td>DS-0362</td>
<td></td>
<td>2 ch input unit</td>
</tr>
<tr>
<td>DS-0364</td>
<td></td>
<td>4 ch input unit</td>
</tr>
<tr>
<td>DS-0371</td>
<td></td>
<td>1 ch signal output module</td>
</tr>
<tr>
<td>DS-0372</td>
<td></td>
<td>2 ch signal output unit</td>
</tr>
<tr>
<td>DS-0391</td>
<td></td>
<td>Unit connecting interface</td>
</tr>
<tr>
<td>DS-0395</td>
<td></td>
<td>Remote controller</td>
</tr>
<tr>
<td>DS-0396</td>
<td></td>
<td>ONO-LINK3 (PCI Express)</td>
</tr>
<tr>
<td>DS-0397</td>
<td></td>
<td>ONO-LINK3 (CardBus)</td>
</tr>
<tr>
<td>DS-0398</td>
<td></td>
<td>ONO-LINK3 (Express Card)</td>
</tr>
<tr>
<td>AX-9031</td>
<td></td>
<td>ONO-LINK3 cable (1.5m)</td>
</tr>
<tr>
<td>AX-9032</td>
<td></td>
<td>ONO-LINK3 cable (3 m)</td>
</tr>
<tr>
<td>AX-9033</td>
<td></td>
<td>ONO-LINK3 cable (10 m)</td>
</tr>
<tr>
<td>AX-9034</td>
<td></td>
<td>ONO-LINK3 cable (20 m)</td>
</tr>
<tr>
<td>AX-9035</td>
<td></td>
<td>Unit connecting interface cable</td>
</tr>
</tbody>
</table>

## Hardware (option)

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Model name</th>
<th>Product name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>AC adapter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Power cable for DC input</td>
</tr>
<tr>
<td>CC-0025</td>
<td></td>
<td>Soft carrying case</td>
</tr>
<tr>
<td>CC-0026</td>
<td></td>
<td>Hard carrying case</td>
</tr>
</tbody>
</table>

## Card slot

Required to be equipped with any one of the following.
PCI Express slot, CardBus slot, Express Card slot

## OS

Required to be equipped with any one of OS (Operating System)
- Microsoft® Windows® 7 Ultimate / Professional (32-bit ver. only)
- Microsoft® Windows® Vista® Ultimate / Business (SP2 or later / 32-bit ver. only)
- Microsoft® Windows® XP Professional (SP2 or later / 32-bit ver. only)

*Some application software may not be applicable to the above operating environment.
For more details, please contact your nearest distributor or send an e-mail to us (overseas@onosokki.co.jp).
*Please note that the DS-3000 series does not work normally when it is used on the above OS by using compatible mode or Microsoft Virtual PC etc.
*The PC environment may be subject to certain constraints, depending on the type of application software or hardware used.
For more detail, please contact your nearest distributor or send an e-mail to us (overseas@onosokki.co.jp)

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*Outer appearance and specifications are subject to change without prior notice.
URL: http://www.onosokki.co.jp/English/english.htm
E-mail: overseas@onosokki.co.jp