**Overview**

The DR-7100 is a portable data recorder for acoustic and vibration with high accuracy. In recent years, we are living surrounded by the equipments which make noise and vibration such as a car, a railroad, a household electric appliance, and a wind power. These equipments are now required for "more quiet" "more comfortable" and "lower vibration" than ever. The DR-7100 greatly helps to make such comfortable acoustic environment by recording sound and vibration on site with ease and high accuracy.

**Feature**

- Data recording with high speed, high accuracy (4ch 40 kHz range 24 bit *1)
- Dynamic range of 90 dB or more
- Equipped with a connector for rotation pulse input
- Available for high-capacity SDHC 32 GB
- Speedy setup by TEDS sensor
- Compact body of A5-size
- 2-Unit synchronicity function (option)

**Lead user**

- Automotive/railway filed (Recording of noise & vibration in driving a vehicle etc.)
- Equipment diagnosis (Routine recording)
- Inspection line (Recording of NG data etc.)
- Part manufacturer (Service after the sales etc.)
- Users of DAT data recorder (Replacement of a recorder etc.)

**Application**

Vehicle interior noise and vibration in driving time

Simultaneous data recording of rotation speed and acoustic·vibration

- Sound and vibration according to the rotation speed can be evaluated by simultaneous recording of rotation speed (rotation pulse) and acoustic·vibration data.

http://www.onosokki.co.jp/
### Specification

**Input**
- Input x 4 rotation speed/external trigger/BNC (voltage/CCLD 4mA selectable)

**TEDS**
- IEEE1451.4 (Ver.1.0 or later)

**Input voltage range**
- 0.01 to 10 V (7 steps) *Can be used at ±10V max.

**Input impedance**
- 1MΩ±0.5%

**A/D conversion**
- Quantization bit rate 24 bit

**Frequency range**
- 100 Hz to 40 kHz (7-step) *1

**Frequency characteristics**
- 3 Hz to 40 kHz ±0.5dB *1

**Dynamic range**
- 90 dB or more (frequency range 20 kHz, 1 V range, TYP)

**Rotation input**
- AC: sine wave or square wave / DC: rectangular wave with pulse width 5μs or more

**Output**
- Audio output x 4 (φ2.5 mini jack), monitor output x 1 (φ3.5 stereo mini jack)

**Trigger type**
- External, internal, time

**Pretrigger**
- 0, 1, 5 s (pretime from trigger event)

**Calibration function**
- TEDS direct (setup by sensor sensitivity value)

**File format**
- ORF format (Onosokki Record Format)

**Recording media**
- SD (256 MB), SDHC (4, 8, 32 GB) * Recording media only after operation check

**Recording time**
- Approx. 43 minutes (when 4ch recording), approx. 172 minutes (when 1ch recording)
- (20 kHz range x 2.56, 24-bit, 2 GB memory card in used.)

**Display**
- 128 x 64 dots (with back light), level bar graph

**Power supply**
- Battery cell (Type AA battery, alkaline or nickel hydride)
- External DC (DC +10 to +18 V)

**Battery life**
- 4.5 hours or more (when nickel hydride in used *2)
- (Frequency range 50 kHz, 4ch, CCLD ON)

**Outer dimension/ weight**
- 199 x 148 x 70 mm, 1.1 kg or more (not including batteries)

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*1. 40 kHz: option
*2. Battery life may change depending on temperature, setup condition, manufacturer/model of the battery cell to be used.

### Option

- **DR-0720**
  - 40 kHz range expansion function

- **DR-0730**
  - Unit synchronicity function *1

- **DR-0703**
  - Cable for unit synchronicity

- **DR-0745**
  - AA filter (Anti-Alias Filter) OFF function *2

- **DR-0711**
  - Remote controller

- **AX-501**
  - Signal cable 2 m (for output, BNC------φ2.5 mini--mini plug)

- **MX-101**
  - Signal cable 1.5 m (for input, BNC------BNC)

*1 The DR-0730 (unit synchronicity function) is required for each unit to be connected. The DR-0703 (cable) is also required for a connection.
*2 AA filter means low-pass filter to avoid aliasing error which may be generated during sampling.

### Accessory

- **Type AA battery (LR6)** x4
- **SD memory card (256 MB)** x1
- **Carrying case** x1
- **Shoulder strap** x1
- **Earphone with microphone** x1 set
- **Instruction manual** x1 set

### Guide of recording time (unit: minute) *+REV: simultaneous recording with rotation speed

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<th>Recording ch</th>
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<th>Recording ch</th>
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ONOSOKKI

WORLDWIDE ONO SOKKI CO., LTD.
1-16-1 Hikarigaoka, Midoricho, Yokohama, 226-8507, Japan
Phone: +81-45-933-9100 Fax: +81-45-933-9096 E-mail: overseas@onosokki.co.jp

U.S.A.
Ono Sokki Technology Inc.
2171 Executive Drive, Suite 400
Addison, IL 60101 U.S.A.
Phone: +1-630-627-0700 Fax: +1-630-627-0704 E-mail: info@onosokki.net

P.R.CHINA
Ono Sokki Beijing Office
Beijing Jinling Guanggu Center 3510
Hu Jia Lou, Chaoyang Qu (Beijing 100020, P.R.China)
Phone: +86-10-5991-3510 Fax: +86-10-5991-3591 E-mail: china_sales@onosokki.co.jp

THAILAND
Ono Sokki (Thailand) Co., Ltd.
2967 M5 9th Division Road, Pakkred, Nonthaburi 11130, Thailand
Phone: +66-2-961-3894 Fax: +66-2-961-3897 E-mail: sales_thailand@onosokki.co.jp

INDIA
Ono Sokki India Private Limited
Unit No. 4B, Ground Floor, Tower-A, SPA, Sector47, Gurugram-Sohna Expressway, Gurugram, Harayana-122002, INDIA
Phone: +91-124-212-1607 Fax: +91-124-212-1609 E-mail: info@onsokki.co.in

URL: http://www.onosokki.co.jp/english/english.htm