Data Acquisition System Omniace



RA2300MKII (HDD model) RA2300MKII-S (SSD model)

The RA2300MKII Ominiace is a data acquisition device that enables you to acquire/record data with simple operation. Reduced condition setting time and easy measurement can be realized by virtual amplifier setup, a touch-panel and dynamic waveform display on a large LCD. The RA2300MKII features with various measuring modes such as HD Recorder (for long-term recording on a 160GB HDD) or Memory Recorder (for fast-speed event recording).

The RA2300MKII will bring you success in many measuring opportunities such as production line, quality inspection and R&D.

Features

Easy oscilloscope

Easy operation of Oscilloscope was realized by virtual amp, setup display and touch panel without complicated settings.

Various features at playback mode

Various search functions are available for finding certain points in large data easily after long-term recording. Fast search using a thumbnail bar (displays all recorded data of selected one channel) and jump search (max/min, time, etc.) available.

Direct input from sensors

Signals from various sensors can be input directly using 9 amplifiers (voltage, strain, temperature, vibration, pressure, rotation pulses, etc.)

Display input waveform on a large screen

A large 12.1" LCD for better visibility of measured data.

Long-term HDD/SSD recording

Long-term & high speed data recording to internal 160GB HDD.

SSD can be chosen as an optional item.

Standard LAN & USB ports

LAN (100BASE-TX) for data communication and USB for external storage devices (USB memories) are standard interfaces.

Standardized FFT/Calculation unit.

RA2300MKII comes with conventionally optional RA23-751 as standard.

Improved vibration resistance (RA2300MKII-S)

The RA2300MKII-S can withstand transportation in vehicles with rigid suspension as well as the harsh environmental conditions on land and sea transport. (satisfies 2G requirement) Standard: IEC60068-2-64



Direct input from sensors9 types of AP amplifiers including voltage, temperature, strain, vibration and frequency (pulse) are available and they enable every signal to direct input.

| Item | Model No. | Sampling | Resolution | Description |
|------------------------------|-----------|----------|------------|--|
| 2-ch high resolution DC amp. | AP11-101 | 10 μ s | 16-bit | DC amp for high resolution measurement |
| 2-ch high speed DC amp. | AP-11-103 | 1µs | 12-bit | DC amp for high speed measurement |
| 2-ch zero suppression amp. | AP11-111 | 10 μs | 16-bit | DC amp for gaining signal changes by eliminating offset element of input signals |
| 2-ch FFT amp. | AP11-102 | 10 µ s | 16-bit | DC and vibration amp to prevent high frequency loop-back |
| Event amp. | AP11-105 | 1μs | N/A | Amp for recording open/close for contact or H/L voltage |
| 2-ch TC/DC amp. | AP11-106A | 10 µ s | 15-bit | Input amp for thermocouple (R, T, J, K and W) and voltage |
| 2-ch AC strain amp. | AP11-104A | 10 μ s | 16-bit | Strain amp which reduces influence of external noises (AC bridge system) |
| 2-ch DC strain amp. | AP11-110 | 10 µ s | 16-bit | Strain amp with DC bridge system |
| 2-ch vibration/RMS amp. | AP11-109 | 10 μ s | 16-bit | DC/vibration amp for measuring signals in RMS |

Basic specifications

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|---------------------------|---------------------------|--|--|
| Display | | 12.1-inch TFT color LCD. Effective screen area: 245.76mmx184.32mm (1024x768 pixels) | |
| Channel | | 16ch (8 slots) + digital input 16ch (optional) | |
| Printer | Printing method | Thermal printing using a thermal head | |
| | Paper width | 219.5mm | |
| | Effective recording width | 1 division (200mm, FS) to 16 divisions (10mm, FS), number of division and printing width can be changed. | |
| | Channel discrimination | Prints channel number in the vicinity of the printed waveform. The ON/OFF function is available. | |
| | Grid pattern | Standard (10mm, 5mm), 10mm, 5mm, No grid | |
| Battery backup | | Clock, Setting value: approx. 3 to 5 years (using a primary battery) | |
| Storage device | | 160GB hard disk drive (HDD), USB memory. | |
| Interface | | Ethernet, USB: standard ***Ethernet has basis over CAT5 (shielded) | |
| Compatible specifications | | RS-232C, Remote terminal: optional | |
| | | EMC: EN1326 A1/A2/A3 | |
| Operating environment | | Safety: EN61010-1 | |
| | | Temperature: 5 to 40°C, Humidity: 35 to 80%RH (without condensation) | |
| Power supply | | 90 to 264VAC, frequency 50 to 60Hz | |
| Power consumption | | 100VA (typical): with AP11-101 x 8 units (approx. 300VA max) | |
| Dimensions | | Approx. 400(W) x 176(H) x 374.5(D) mm | |
| Weight | | 8.5kg or less (main body only), 9.2kg or less (main body with AP-11-103 x 4 units) | |

Communication & storage specifications

| HDD | Function | Setting conditions of main unit and save/read out of measures data | |
|--------------|--------------------------|--|--|
| | Capacity | 160GB (system domain 5 GB + data storage space 155GB) | |
| SSD Function | | Setting conditions of main unit and save/read out of measures data | |
| | Capacity | 256GB (system domain 5 GB + data storage space 251GB) | |
| Ethernet | Function | Control with communication command. Windows and file sharing with Windows PC | |
| | Capacity | 100 BASE-TX | |
| USB Function | | Data saving on storage device by USB connection | |
| | Standard | 2.0 | |
| | Available storage device | USB memory | |



