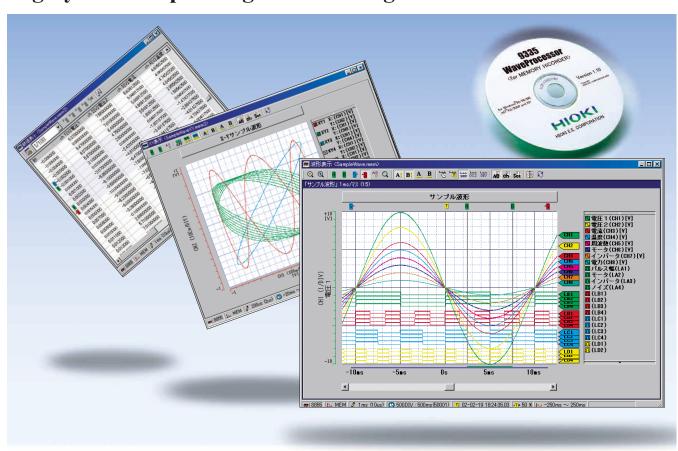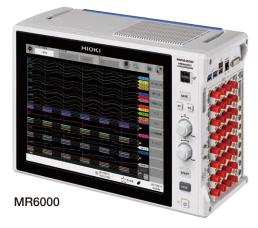# HIOKI

Waveform analysis software for the MEMORY HiCORDER series

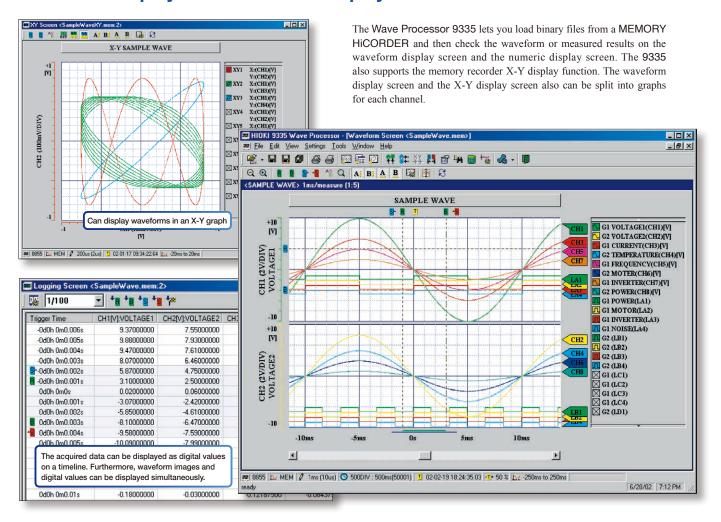# Highly detailed printing to see the slightest waveform fluctuation



## Display, convert, calculate and print large volumes of waveform data on a PC
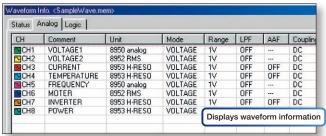
The WAVE PROCESSOR 9335 is an application software for Windows that enables users to display, print, convert, and calculate large volumes of waveform data that have been recorded and collected by instruments in the MEMORY HiCORDER series. This PC application also includes functions for checking and analyzing measured results, such as conditional search, numeric calculations, and cursor measurement. Detailed printing can be performed as if it were printed by the printer installed in the MR8847A MEMORY HiCORDER, very popular for its printer's quality.
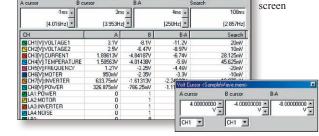


MR6000

# Check waveforms and measured results on a PC

## Waveform display screen and X-Y display screen



Can display waveforms in an X-Y graph

The Wave Processor 9335 lets you load binary files from a MEMORY HiCORDER and then check the waveform or measured results on the waveform display screen and the numeric display screen. The 9335 also supports the memory recorder X-Y display function. The waveform display screen and the X-Y display screen also can be split into graphs for each channel.



The acquired data can be displayed as digital values on a timeline. Furthermore, waveform images and digital values can be displayed simultaneously.




Displays waveform information

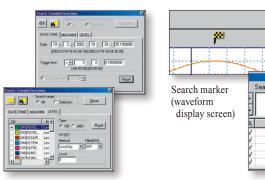Waveform display screen


Trace cursor screen

Voltage cursor screen

## Fast search by date, time, level, etc.

The Wave Processor 9335 allows you to jump to a position that satisfies certain conditions, and display the waveform and the measured value at that position. This function can also be used as a re-trigger function.
The following search criteria can also be specified:

- Date and time
- Maximum value
- Absolute maximum value
- Level up
- Window in
- Logic pattern (logic data only)

- Event mark
- Minimum value
- Absolute minimum value
- Level down
- Window out



Settings screen for search criteria
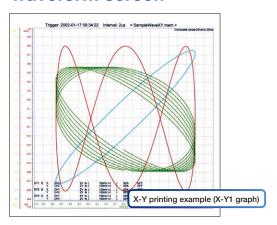(Top: time search; bottom: conditional search)

Search marker
(waveform
display screen)

Measurement value at the search
position (cursor screen)

## Printing and copying the waveform screen



X-Y printing example (X-Y1 graph)



You can make a detailed printout of a waveform from your PC's printer. You can print waveforms that span several pages, and you can print in color or in black.
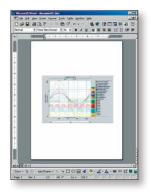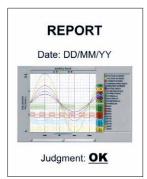
Waveform printing example (1 graph)

When a waveform is displayed on the screen, you can copy that waveform to the Windows clipboard, or make a hardcopy of the waveform. You can also paste the waveform onto text document, as register applications like Word that you often use so that you can quickly open a new document of your choice.
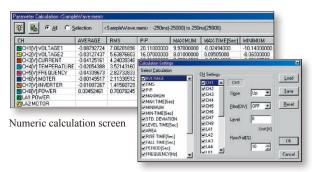


REPORT

Date: DD/MM/YY

Judgment: OK

| 1. Copy to clipboard | 2. Start application | 3. Paste in application | 4. Print from application |

## Statistical functions make data evaluation easy



Numeric calculation screen
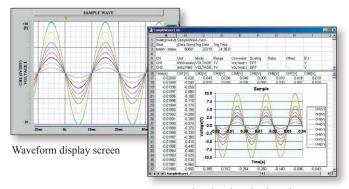
Calculation setup screen

19 types of numerical calculations can be displayed for all the areas or a specific area only. In addition to effective value, maximum value, frequency, and other standard values, you can also calculate values for characteristics such as duty ratio and rise time.

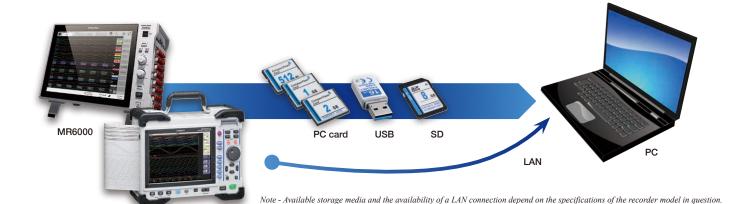Use the Wave Processor 9335 to calculate the following:
average value, maximum value, minimum value, maximum time, minimum time, peak-to-peak value, effective value, area, standard deviation, on time, off time, number of times turned on, frequency, period, duty ratio, pulse width, rise time, fall time, time to level

## Converting data to CSV format

A displayed waveform can be converted into a CSV file, either in whole or in part. Variables such as cropping on/off, the cropping method, and the time axis format can be set. Converting to a CSV file allows you to use the data with spreadsheet software and other compatible software.



Waveform display screen

A screen showing data that have been converted into CSV format and opened in Excel.

*Note - Available storage media and the availability of a LAN connection depend on the specifications of the recorder model in question. For example, for the MR6000 series, we recommend the dedicated software MR6000 Viewer. (Please refer to Introduction of MR6000 Viewer below.)*

## Displaying and printing measurement results through a PC

The WAVE PROCESSOR 9335 is a PC application software that can be used to display and print waveform data recorded by a MEMORY HiCORDER, such as the MR8860, MR8847A, MR8875, or the MR8880.
The application can load an especially large amount of waveform data when recorded by the MEMORY HiCORDER MR6000. (The file size you can handle may be less depending on the PC environment.) Waveform data files can transferred from a MEMORY HiCORDER to a PC via a PC card, SD card, USB memory, or LAN connection.

*Use only the storage media sold by HIOKI. Compatibility and performance are not guaranteed for storage media made by other manufacturers. You may be unable to read from or save data to such media.*

### PC software
# MR6000 Viewer

**Free download**

Load data measured with the MR6000/MR6000-01 onto a PC to display waveforms and perform calculations

| Intuitive operation | Waveform processing | FFT calculations |
|---|---|---|

Utilize functionality similar to that provided by the MR6000 on a PC, including numerical calculations, waveform processing, and FFT calculations. (Some restrictions apply.)



Same functionality and usability as instrument

| Supported models | MR6000, MR6000-01 |
|---|---|
| Supported operating system | Windows 10 (64-bit) For other system requirements, please see the user manual. |
| Availability | Free download from the Hioki website |

### Model : WAVE PROCESSOR 9335

Model No. (Order Code)   (Note)

| | |
|---|---|
| 9335 | Compatible with Windows 10/8/7 (32-bit/64-bit) |

### Specifications

| | |
|---|---|
| Compatible devices | Model MR6000, MR6000-01, MR8847-51/-52/-53, MR8827, MR8875, MR8880, MR8870, MR8740T, MR8740, MR8741, MR8847-01/-02/-03, 8847, 8861-50/8860-50 (not compatible with dual time-axis data of the 8860 series), 8855, 8870, 8842, 8841, 8840, 8835-01, 8835, 8826, 8825, 8808, 8807, 8808-50, 8807-50 (excluding harmononic analysis function), MR8730, MR8731, 8730, 8731, 8720, 8715, 8714 |
| Supplied Media | One CD-R disc |
| Operating environment | Windows 10/8/7 (32-bit/64-bit) |
| Display functions | [Waveform display] displays image of loaded waveform data on screen [X-Y display] memory (.MEM) and power (.POW) only [Digital value display] displays waveform data as digital values, and allows images and digital values to be displayed simultaneously [Cursor function] allows you to display the time and potential differences between cursors A and B, the time and electrical potential between each cursor, and the absolute and relative times [Scroll function] [Maximum number of channels] 32 analog channels, 32 logic channels [Gauge display] time gauge, voltage axis gauge [Graphical input] yes |
| File loading | [Loading data format] memory (.MEM, except for data stored in real time); recorder (.REC), effective value recorder (.RMS), power (.POW) [Maximum loadable file size] maximum size that can be stored by hardware (the maximum size that can be handled may be smaller in some PC environments.) |
| Data conversion functions | [Target data] all data, data between cursors [Data interval] simple interval (number of samples can be specified) [Data conversion] converts analog waveform data into numeric values, converts logic data into binary [Data conversion format] CSV format, tab delimited, space delimited (selectable when data is saved) [Conversion channel] can be selected when data is saved [Batch conversion] multiple files can be specified for batch conversion |
| Printing functions | [Printing format] can print with no partitions, 2 to 16 partitions, 2 to 16 columns, X-Y 1 to 4 partitions, gauges, channel comments [Print preview] yes [Waveform screen hard copy] yes [Compatible printers] any printer supported by the OS (color or black and white) |
| Parameter calculation functions | [Target data] all data, data between cursors [Calculation items] average value, effective value, peak value, maximum value, time of maximum value, minimum value, time of minimum value, rise time, fall time, standard deviation, area, cycle, frequency, pulse width, duty ratio, on time, off time, number of times turned on |
| Other | [Search functions] event mark, date and time (absolute time, time relative to trigger), maximum, minimum, absolute maximum, absolute minimum, level up/down, window in/out [Clipboard copy] waveform screen, cursor value, digital value, file information [Startup of other applications] other applications can be launched by specifying run file |

*Note: Company names and product names appearing in this brochure are trademarks or registered trademarks of various companies.*



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