

ScopeCorder DL850E/DL850EV



The ScopeCorder DL850E/850EV provides both oscilloscope equivalent functions suitable for monitoring high-speed waveforms and data logger equivalent functions suitable for multi-channel, long term measurement. This is a waveform measuring instrument that responds to diverse measurement needs.

It can measure various physical signals such as voltage, current, strain, and acceleration, through multiple channels for an extended time at product development sites in the mechatronics field. Two models are available: one is the standard model DL850E, and the other is the dedicated model DL850EV (vehicle edition) equipped with additional functions mainly for developing vehicle related equipment.

17 plug-in modules are available in total for a variety of measurements.



DL850E

DL850EV

MAJOR FEATURES

- High-speed isolated measurement (*isoPRO* technology)
High-speed optical data transmission through optical fibers achieves high-speed measurement at 100 MS/s, high AD resolution of 12 bits, and a wide analog bandwidth of 20 MHz. In addition, the isolation module for high-speed sampling and for an isolation probe enable high voltage insulated measurement of 1 kV.
- Instantaneous waveform display (*GiGAZoom* ENGINE²)
The high-speed data processing system GigazoomEngine² based on an original data processing algorithm can instantaneously display a max. 2 G points data and two zoomed waveforms.
- Excellent noise immunity
Excellent noise immunity is achieved owing to intensive low noise design technology. For example, the isolation module for 10 MS/s offers CMRR of approximately 90 dB at 10 kHz (for reference only). Switching waveforms in the inverter circuits affected by the floating voltage can be accurately captured.
- CAN/LIN bus monitoring (DL850EV only)
CAN/LIN bus protocol communication data can be monitored as analog trend waveforms by using the CAN/LIN bus monitoring module (available only for the DL850EV).

IMPROVEMENTS COMPARED WITH THE PREVIOUS MODEL DL850/DL850V

- Enhanced linkage with a personal computer (PC) for continuous data recording
By connecting to a PC, data can be recorded with no recording interval limitations.
- Real-time computing and recording specific to power applications
Measured voltage or current data are processed in real time in the main module, and the calculated waveforms of various power related parameters can be displayed in a trend chart and recorded.
- Synchronized measurement by GPS
By connecting the GPS antenna bundled with the product directly on the side of the main body, the internal clock and sampling clock of the ScopeCorder can be synchronized to the GPS.

MAJOR SPECIFICATIONS

Sampling rate	max. 100 MS/s*1
Bandwidth	20 MHz*1
The number of input channels	max. 128 (the number of slots is 8) *1
A/D resolution	16 or 12 bits*1
Record length	max. 2 G points (with /M2 option)
Time axis resolution setting range	100 ns/div to 20 day/div
Continuous interval recordable into the built-in HDD	Max. 200 days
The number of real-time waveform computations (with /G3 option)	Max. 16
Power analysis (with /G5 option)	Parameter calculation and harmonic analysis of the measured power
Display	10.4 inch TFT color LCD monitor
External dimension	355 (W) × 259 (H) × 180 (D) mm
Weight	Approx. 6.5 kg to 9 kg (depends on the type and number of inserted modules)

*1: depend on input modules

APPLICATION EXAMPLES

- Characteristics and performance evaluation tests for motors and inverters
The ScopeCorder can monitor the parameters of the measured power such as active power, apparent power, while accurately observing the waveforms affected by the floating voltage even in an environment with large switching noises.
- Verifying failure occurrence mechanisms by long term continuous tests
To elucidate failures that occur very rarely during product development or evaluation, the ScopeCorder can continuously record the test data for an extended time and analyze them as needed.

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