

# High Speed Chart Recorder & Data Acquisition System Delta HSR100



## Key Features

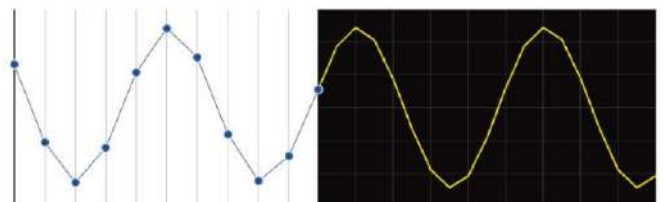
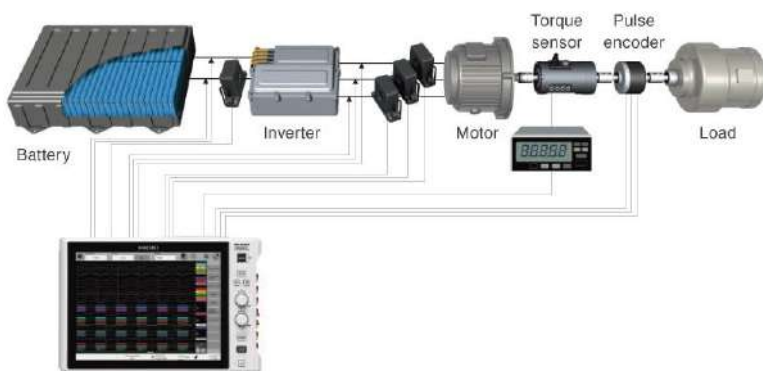
- High-speed 200 MS/s isolated testing
- Simultaneously measure up to 32 analog channels
- Real-time saving of data of all 32 ch at 1 MS/s
- Highly-responsive touchscreen
- Memory Concierge: Easily search for the waveform you want to see with the waveform search function
- Faster save times
- Real-time digital filter calculation

## Test ECUs, inverters and motors

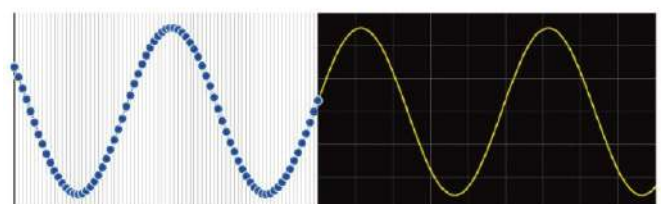
Combine the CURRENT UNIT and a current probe or current sensor designed and manufactured by DeltaTMI to use the system within a wide temperature range or measure large currents with a high level of precision at solar power plants or development sites for EVs/HEVs. The convenient, built-in sensor identification function lets you simply connect the sensor to easily configure the scaling settings through automatic recognition.

## High-speed isolated measurement at 200 MS/s

Blazing fast, never-fail sampling. The HIGH SPEED ANALOG UNIT boasts the highest sampling rate in its entire series, an order of magnitude faster than conventional models, enabling the unit to perform isolated measurement at 200 MS/s. Completely isolated input connections between analog input channels, and between the input Channel and the main unit, are fully isolated. This means that, unlike an oscilloscope, measurements can be made without concern with negative effects from potential differences.



Conventional sampling (20 MS/s)



200 MS/s High-speed sampling

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Equipped with a powerful data analysis function



FFT calculation 4-split screen



Chronological order + FFT calculation screen

## Rich set of search functions

### Peak search

Search for the maximum value, minimum value, local maxima, or local minima in all of the measured data, and mark the search point in the waveform.

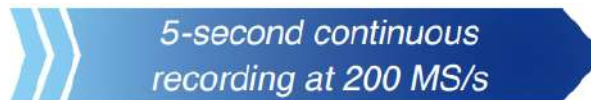
### Trigger search

Set trigger conditions for all of the measured data again to search for points where the conditions are fulfilled, even if no triggers were set during the measuring process.

### Jump

Jump to an event mark you made while measuring, to the cursor position on the display, or to the location measured at a specified time.

## Available recording duration

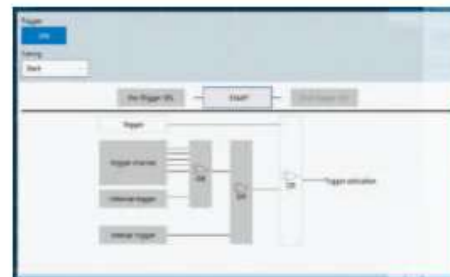


Sampling rate	1 ch	2 ch	3 to 4 ch	5 to 8 ch	9 to 16 ch
200 MS/s	5 s	2.5 s	1 s	0.5 s	0.25 s
100 MS/s	10 s	5 s	2 s	1 s	0.5 s
50 MS/s	20 s	10 s	4 s	2 s	1 s
20 MS/s	50 s	25 s	10 s	5 s	2.5 s
⋮	⋮	⋮	⋮	⋮	⋮

## Triggers that detect targeted events

Set triggers on any channel to record data whenever an event occurs.

- Level trigger** Compares to one voltage value.
- Window trigger** Compares to two voltage values.
- Voltage drop trigger** Detects voltage drops in commercial power lines.
- Period trigger** Monitors periods.
- Glitch trigger** Detects anomalies in pulses.
- Pattern trigger** Compares when the logic signal is ON/OFF.

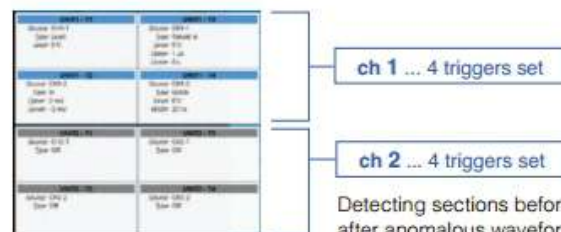


Clear trigger system diagram

## Setting multiple triggers for a single channel

Set up to 4 triggers for a single channel. If, for instance, you set the glitch, level, window-in, and window-out triggers for the same input waveform, that waveform is monitored according to the set trigger conditions.

Various triggers × Up to 4 Settable for any channel



Detecting sections before and after anomalous waveforms

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## Delta HSR100



### Technical Specifications





Function	Range / Values
Display	12 inch XGA-TFT color LCD (1024 × 768 dots), Touch Screen
Number of input units/ Slots	Max. 8 units/ Slots
Number of channels	Max. 32 analog channels or 128 logic channels
Max. allowable input	1000 V AC/DC through 10:1 Probe 250 V AC/DC through 1:1 probe & direct input
Frequency Bandwidth	DC to 500 KHz
Max. sampling rate/ Speed	200 MS/s, all channels simultaneously
Resolution	16 Bit
Accuracy	±0.25%
Recording methods	Normal: Normal waveform recording Envelope: Record maximum and minimum values every fixed
Analysis and Computation	FFT Type: LS, RS, PS, PSD Time windows: Hanning, Hamming, Flat Top, and Rectangle
Function	Real-time waveform calculation, Digital Filter calculation
Storage memory capacity	500 GB Internal Memory (HDD built in the main unit)
Removable storage	SD memory card : 1 Slot , USB memory : 2 Slots
External interfaces	LAN, USB, SD, SATA, Monitor output, RJ-45 Modular Jack x 1 Conforms to IEEE 802.3, Ethernet (1000BASE-T / 100BASE-T)
Power supply	100 to 240 V AC (50/60 Hz) (300 VA max.)
Dimensions and Weight	353 mm (13.9 in) W × 235 mm (9.25 in) H × 154.8 mm (6.09 in) D, Weight : 6.5 kg (main unit only)
Accessories	Rechargeable Battery: 01 No., AC Adaptor: 01 No. Power Cord: 01 No. , Quick start manual: 01 No., 10: 1 Voltage Probe, 1:1 Voltage Probe, Hard Carrying Case : 01 No., Software: 01 No., Test Certificate: 01 No.
Warranty	3 Years

### Ordering Information

Code	Description
Delta HSR100	High Speed Chart Recorder & data Acquisition System
HS200	High-speed 200 MS/s Isolation Module (2 ch)
HS100	High-speed 100 MS/s Isolation Module (2 ch)
HS10	High-speed 10 MS/s Isolation Module (2 ch)
HS1	High-speed 4-CH 1 MS/s Isolation Module
VIM16	16 CH Voltage Input Module
AVM2	Acceleration/Voltage Module (with Anti-Aliasing Filter, 2 ch)
FM2	Frequency Module (2 ch)

# High Speed Chart Recorder & Data Acquisition System Delta HSR100



10:1 PROBE (Part Code : 101)	100:1 PROBE (Part Code : 1001)	AC/DC CURRENT PROBE (Part Code : CT 100)	CONVERSION ADAPTER (Part Code : CA)
			
<ul style="list-style-type: none"> <li>• 1 kV rms Max.</li> <li>• Max. rated voltage to earth depends on input unit.</li> </ul>	<ul style="list-style-type: none"> <li>• 5 kV rms Max.</li> <li>• Max. rated voltage to earth depends on</li> </ul>	<ul style="list-style-type: none"> <li>• DC to 500kHz</li> <li>• Rated 500A AC/DC</li> </ul>	<ul style="list-style-type: none"> <li>• Receiving side banana (female), output BNC (male)</li> </ul>