

DLM5000HD

High Definition Oscilloscope

Uncover Every Detail

Combining a large, highly responsive touchscreen and a traditional oscilloscope panel, the 4 to 8 channel DLM5000HD High Definition Oscilloscope allows users to easily navigate through a wealth of analysis features at the touch of their fingertips.



Adaptability and flexibility to test:

- Intelligent power-semiconductor technologies
- Automotive designs
- Aerospace
- Technologies
- Mechatronics
- Power electronics (Inverter)
- Motor controls
- Energy efficient electronic designs

- 12 bit A/D converter
- 350 MHz and 500 MHz bandwidths
- Up to 2.5GS/s sample rate
- Up to 1 GPoints memory
- 4 or 8 analog inputs channels
- Up to 32 bit logic input
- DLMsync – up to 16 analog channels 64 bit logic
- IEEE1588 time synchronization
- Serial Bus auto setup functions

High Resolution

The 12-bit A/D converter enables users to analyze signals with the smallest detail. Combined with the newly improved analogue front end, which reduces the noise level to maximize the utilization of the high-resolution A/D converter.

Large and easy to configure 12.1-inch touchscreen

The combination of the interactive 12.1-inch touchscreen interface with a traditional oscilloscope control panel allows users to seamlessly transition between the two modes of operation. Users can automatically or manually split the display to separate individual channel waveforms while maintaining their full dynamic range, which makes the DLM5000HD one of the simplest scopes to set up while maintaining full detailed insights of the desired signals irrespective of the number of channels used.

Adaptable inputs - DLMsync

Choose to capture a mix of 4 or 8 analogue signals and up to 32 logic all measured by one single unit. If this is still not enough for the application, the DLMsync function enables even more measurement channels. Connecting two DLM5000HD's with a dedicated cable enables synchronous measurement of up to 16 analog channels and 64 bit of logic. The input trigger is synchronized and common items, such as memory length, sampling rate, acquisition settings, etc. are linked, so the set can be used as a single 16-channel oscilloscope.

Long waveform memory up to 1 GPoints

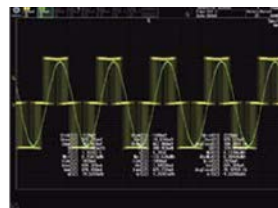
The two advantages of a long waveform memory are the ability to capture for longer periods of time and to be able to maintain high sample rates and hence higher effective measuring bandwidths. Using a short memory means that sample rates will be lower in order to make an acquisition for the same period of time. When the maximum memory length is not selected, the history memory is automatically enabled.

History memory and high-speed acquisition

With faster acquisition rates there is a higher chance of seeing an anomaly when it occurs. The DLM5000HD is able to use its history memory to automatically save up to 200,000 previously captured waveforms and subsequently display just one or overlay all of them on screen. Anomalies in wave shapes can therefore be easily recognized, isolated and further analyzed.

Vehicle Serial Bus Analysis

From automotive braking systems to car navigation, serial buses are used to establish communication between ECUs, sensors and actuators. The DLM5000HD supports FlexRay, CAN, CAN FD, LIN, SENT, UART (RS232), I2C, SPI and CXPI serial bus patterns as well as the ability to simultaneously analyze up to four different buses operating at different speeds. The unique auto setup function analyzes the input signal and will automatically set the appropriate trigger and decoding settings, such as bit rate and threshold levels. The auto setup function now also works on already acquired waveforms.



Power measurement

The oscilloscope can be used as a power meter by providing automated measurement of power parameters for up to two pairs of voltage and current waveforms. These values can then be statistically processed and calculated to provide peak, average and root-mean-square values, along with many other parameters such as power factor and q-factor.

Power supply analysis

Using the long memory, the switching loss of the voltage and current waveforms can be computed over long periods. Joule integral (i^2t), SOA (safe operating area) and harmonics based on EN61000-3-2 can also be measured and analyzed.

Two independent zoom windows

Combined with the advanced search and cursor/parameter measurement capabilities, the two zoom windows enable users, for example, to see the waveform detail of two parts of the acquisition which can be separated by a long time period. It is thus possible to quickly find, measure and analyze the details of the cause and effect of an anomaly which could be on the same or different input channels.

3 years warranty

The quality and reliability of the DLM5000HD is supported by a standard 3 year warranty.

Why choose the DLM5000HD?

Effortless – The DLM5000HD is a compact 8-channel 12-bit oscilloscope with the ability to observe and analyze complex high-speed waveforms in high resolution. The intuitive touchscreen, auto setup, and extensive analysis functions accelerate complex diagnosis

Harmonizing – it is now possible to synchronize the DLM5000HD with a high precision power analyzer using IEEE1588. With DLMsync users have the flexibility to extending measurements up to 16 analog channels and 64 bits of logic to gain even more application insights.

Reliable – Featuring low residual noise, extensive voltage ranges and a variety of real-time low pass filters users are ensured of signal fidelity. Supported by its purpose-built operating system the DLM5000HD is both stable and reliable.

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