

MDIO Decode



Key Features

Support for Clause 22 and Clause 45

Intuitive, color-coded decode overlays

Intelligent clause and bit rate recognition

Support for continuous and bursted clocks

Serial pattern search of decoded data

Interactive protocol decode table

Simultaneous operation with three other decoders (four total) at one time

The Management Data Input/Output (MDIO) decoder provides a fast and easy way to understand and correlate MDIO bus traffic to the management of PHYs or physical layer devices in media access controllers (MACs).

Intuitive, Color-coded Overlays

A transparent overlay with color-coding for specific portions of the MDIO protocol and the entire message frame makes it easy to understand your serial data information. Unlike other solutions, with protocol decode information away from the signal, our solution correlates the waveform and the protocol decode directly on the display. As the acquisition length is expanded or shortened, the decode overlay will adjust to show you just the right amount of information.

Pattern Search

Search through a long record of decoded data by using a variety of search criteria, or values, or simply finding the next occurrence. Pattern Search automatically creates a zoom trace of the acquired waveform and displays the selected location complete with the transparent color-coded overlay.

Intelligent MDIO Recognition

The MDIO decoder will automatically detect the bit rate and the use of Clause 22 or Clause 45, minimizing the required setup time. Additionally, support is provided for both continuous and bursted clocks for maximum flexibility.

Interactive Table Summarizes Results

Turn the oscilloscope into a protocol analyzer with a tabular display of decoded information. Customize the table to show only the data of interest and touch a message in the table to automatically zoom to it and display it on the screen. Export the table for offline analysis. Up to four different decoded signals of any type may be simultaneously displayed in the table.

SPECIFICATIONS AND ORDERING INFORMATION

MDIObus D	
Definition	
Source Setup	Select Source for Clock and Data.
Decode + Search Capability	
Format	Hexadecimal, with selection for Bit Viewing (Index or State).
Decode Setup	Threshold definition required. Default is to Percent amplitude.
Decode Input	Any Analog Channel, Memory or Math Trace, and any Digital trace. Clock channel may be turned OFF and data will still decode (reduces screen clutter).
# of Decodes	Up to 4 buses may be decoded at one time. In addition, zooms can be displayed (with decoded information).
Visual Aid	Color Coding for PACKET, START OF FRAME (SOF), OPERATION CODE (OP Code), PHYSICAL ADDRESS (PHY Address), DEVICE TYPE (Clause 45), REGISTER ADDRESS (Clause 22), TURNAROUND TIME, DATA, and PROTOCOL ERROR. Decode information is intelligently annotated based on timebase setting, and overlaid on acquired waveform.
Table Configure, Export Table	Display 1 to 20 rows of decoded information for up to 4 different protocols or decodes in time order in a single table. Displayed information includes Index, Timestamp, and other various protocol-specific information. Table permits scrolling, touch to zoom, export to .csv file, and special display of long data or other patterns.
Search	Basic search for Previous or Next INDEX, TIME, MESSAGE (value), SOF (Start of Frame), OP CODE, PHY ADDRESS, DEVICE TYPE, TURNAROUND TIME, DATA or STATUS. Advanced search allows complex criteria using boolean and/or logic to combine up to three different searches
Table Filtering	Select a column header to create filter data.

Ordering Information

Product Description

Product Code

MDIO Decode Options

MDIO Decode Option for WaveSurfer 10 Oscilloscopes	WS10-MDIObus D
MDIO Decode Option for HDO4000 Oscilloscopes	HDO4K-MDIObus D
MDIO Decode Option for WaveRunner 6 Zi and HRO 6 Zi Oscilloscopes	WR6Zi-MDIObus D
MDIO Decode Option for HDO6000 Oscilloscopes	HDO6K-MDIObus D
MDIO Decode Option for WaveRunner 8000 Oscilloscopes	WR8K-MDIObus D
MDIO Decode Option for HDO8000 Oscilloscopes and MDA800 Motor Drive Analyzers	HDO8K-MDIObus D
MDIO Decode Option for HDO9000 Oscilloscopes	HDO9K-MDIObus D
MDIO Decode Option for WavePro/SDA/DDA 7 Zi/Zi-A Oscilloscopes, Serial Data Analyzers and Disk-drive Analyzers	WPZi-MDIObus D
MDIO Decode Option for WaveMaster 8 Zi/Zi-A/Zi-B Oscilloscopes, Serial Data Analyzers, and Disk-drive Analyzers	WM8Zi-MDIObus D
MDIO Decode Option for LabMaster 9 Zi-A Oscilloscopes	LM9Zi-MDIObus D
MDIO Decode Option for LabMaster 10 Zi/Zi-A Oscilloscopes	LM10Zi-MDIObus D

Customer Service

Teledyne LeCroy oscilloscopes and probes are designed, built, and tested to ensure high reliability. In the unlikely event you experience difficulties, our digital oscilloscopes are fully warranted for three years and our probes are warranted for one year. This warranty includes:

- No charge for return shipping
- Long-term 7-year support
- Upgrade to latest software at no charge



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Local sales offices are located throughout the world.
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