

MIPI System Power Management Interface (SPMI) Decode



Key Features

- Intuitive, color-coded decode overlays
- Serial pattern search of decoded data
- Interactive protocol decode table
- Simultaneous operation with three other decoders (four total) at one time
- Full SPMI command sequence support
- Multi-master, multi-slave capable
- Full arbitration sequence support
- Support for all sequences with pauses

The MIPI System Power Management Interface (SPMI) decoder provides a fast and easy way to understand and correlate SPMI bus traffic to DC power rails and power management IC (PMIC) operations in mobile, handheld, and battery-powered embedded systems.

Intuitive, Color-coded Overlays

A transparent overlay with color-coding for specific portions of each 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.

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

SPMIbus 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 FRAME, ARBITRATION SEQUENCE, COMMAND SEQUENCE, ARBITRATION/COMMAND BITS, SEQUENCE START CONDITION (SSC), SLAVE ADDRESS, COMMAND, BYTE COUNT CODE (BC), REGISTER ADDRESS, PAYLOAD DATA, PARITY BITS, BUS PARK CYCLE, ACK/NACK, 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), SSC, SLAVE (id), COMMAND, BYTE COUNT CODE, REGISTER, DATA (value), NBITS, or STATUS. Advanced search allows complex criteria using boolean and/or logic to combine up to three different searches.

Ordering Information

Product Description

Product Code

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