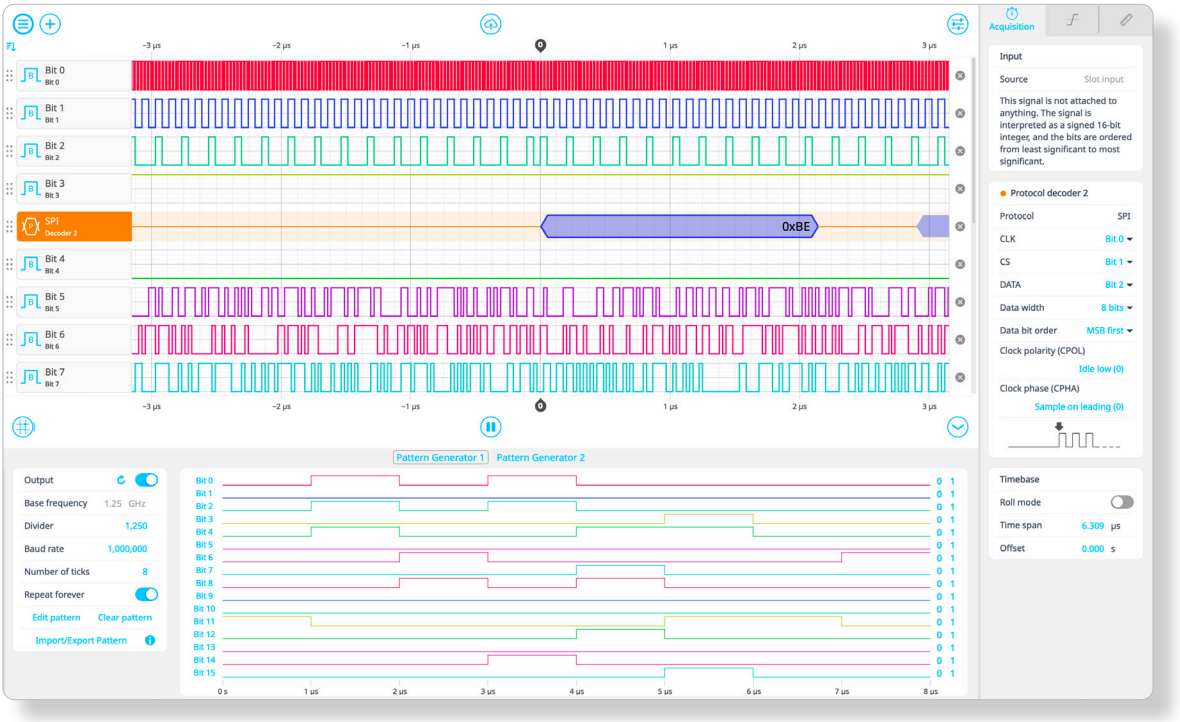
Moku:Delta Instrument Datasheet

Logic Analyzer



Moku:Delta Logic Analyzer enables high-speed, multi-channel digital signal inspection and protocol decoding with seamless integration into your workflow. Featuring 32 bidirectional digital I/O channels and 8 analog channels with configurable threshold sampling rates at 312.5 MSa/s. Decode standard protocols including UART, SPI, I2C, CAN, I2S, USB, and parallel bus with ease, and leverage built-in Boolean logic operations (AND, OR, XOR, etc.) for complex signal analysis. With full API support across Python and MATLAB, and tight integration with Moku Cloud Compile, the Logic Analyzer accelerates custom hardware development from design to deployment.



Sample Memory Depth	Pattern Memory Depth	Input / Output Sampling Rate	Supported Protocols	Decoding Rate
250k × 16	**32,764 × 16**	**312.5 MSa/s**	**UART, I2C, I2S, CAN, SPI, USB, and Parallel Bus**	**> 100 MHz**

Features

- Two selectable 16-bit input buses and two 16-bit Pattern Generators
- Eight analog inputs with configurable threshold
- One auxiliary input channel from external trigger input
- Supported protocol: UART, I2C, I2S, SPI, CAN, USB, and parallel bus
- Supported math: AND, OR, XOR, NAND, NOR, XNOR
- Intuitive graphical user interface with Python and MATLAB API support

Specifications

- Sample memory depth: 250k × 16
- Pattern memory depth: 32,768 × 16
- Maximum clock frequency: 312.5 MHz

Logic Analyzer

- Logic level: 3.3 V, 5 V tolerant
- Impedance: 1 MΩ
- Sampling rate: up to 312.5 MSa/s

Pattern Generator

- Sampling rate: up to 312.5 MSa/s
- Logic level: LVCMOS (3.3 V)

Protocol Decoder

- Decode rate: > 100 MHz (protocol dependent)

Applications

- Custom design simulation, debugging, and monitoring
- IC testing and validation
- Digital circuit design
- Digital communication diagnosis
- Protocol decoding
- Signal simulation
- Embedded system development
- Mixed-signal system debugging

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Note: All Moku:Delta specifications are subject to change.