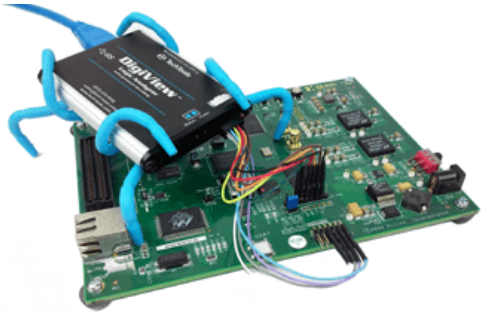
DigiView™ DV509 Logic Analyzer

500 Msps / 1 Gsps, 9 Channel Logic Analyzer with Protocol Decoding and Hardware Compression



(Typical usage - Development Board not included)

Very Small Size:
The sturdy extruded aluminum case is only 2.8" wide, 3.4" long and ½" thick.

Flexible Spider Stand included:
Place the unit virtually anywhere. Flexible enough to place directly where its needed.

DV509 Hardware Specifications

Sample Rate	500 Msps @ 9 ch 1 Gsps @ 4 ch
Sample period (ns)	2ns @ 1-9 ch 1ns @ 1-4 ch
Channels	9
Channels per Cable Pod (x Pods per unit)	9 (x 1)
Threshold Circuits	1
Adjustable Threshold	-4V to +4V
Threshold Accuracy	+- 250mv
Trigger Output (BNC)	No
Trigger position	Selectable (0-100%)
Buffer Size	Selectable (1-100%)
Internal Memory	Yes, 128 Mbit internal Storage for Store & Forward
Real-time Compression	Yes, Multi-mode (varies due to multiple compression techniques implemented on the fly according to data characteristics)
Streaming	Yes, (up to 100 Million Transitions)

Since we have real-time hardware-based compression, we measure captures in 'number of Transitions' rather than ' number of samples.'
The number of samples captured varies with the data rate, but is always higher than the number of transitions
(#samples ~= #transitions * samplerate / datarate).

Typical Transitions captured (USB 3.0)	
9ch@500Msps:	100M (@data rates up to 160MTps)
4ch@1Gsps:	100M (@data rates beyond full bandwidth)
Typical Transitions captured (USB 2.0)	
9ch@500Msps:	100M (@data rates up to 14MTps)
4ch@1Gsps:	100M (@data rates up to 24MTps)
Guaranteed minimum transitions captured (with data rates > 10Tps): (Ensured by the large store-and-forward buffer, even if the data rate far exceeds the USB bandwidth)	
9ch@500Msps:	8 Million
4ch@1Gsps:	10 Million
Typical Serial captures, USB2 or USB3 at full sample rate	
Asynchronous	18 Million Characters
Synchronous	5 Million Characters
I²C	4 Million Characters
SPI	4 Million Characters
Trigger Circuitry	
Operating speed (MHz)	250
Electrical	
Impedance	50KOhms // < 4pF
Power Source	USB
Power (Idle / Active)	<0.5 Watt / < 2.5W
Maximum voltage (Continuous, all channels)	+-20 Volts
Ground current Protection (ground lead to +-voltage)	Yes, +-12 Volts
Anti-static protection	Yes
Connection Type, Speed	USB 3.0 (SS) or USB 2.0 (High Speed)
Mechanical	
Size (LxWxH)	3.4" x 2.8" x 0.5"
Materials	Extruded Aluminum
Trigger Specifications:	
Trigger Sequencers	Configurable: 1@16 stages, OR 4@4 stages, OR 2@8 stages, OR 1@8 and 2@4 stages, OR 1@12 and 1@4 stages

Trigger Match Circuits	8 Universal Match Circuits. Each Circuit can be configured for any of the following: • Edge Detect (Full Channel Width - OR: rising, falling, either) • Patterns (Full Channel Width - AND: 0, 1, X) • Stable (Full Channel Width) • > , >=, <, <=, <> (Full Channel Width)
Match Duration	Yes - 1 per match circuit - up to 1M samples each
Trigger Pass Count	Yes (up to 1 Million per Sequencer stage)
Trigger Output Sources	Seq 1, OR Seq 2, OR Seq 3, OR Seq4 OR (8 input sum-of-8 input products of all 8 match circuits)

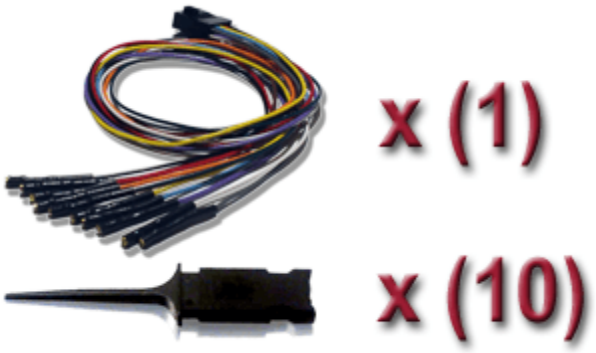
Additional Details

Front View - DV509:

Channel Cable Connector, Status LED, Power LED

Rear View - DV509:

Micro USB Connector (USB 3.0/2.0)



Cables & Clips Included:

High Quality, flexible, connectorized cables and a full set of micro-clips are included with each Logic Analyzer

Flexible Stand/Hanger included:

Place the unit virtually anywhere. Flexible enough to hang over a card riser or stand the unit in the middle of the Device Under Test. Insulated to protect from electrical shorts.

Software Included:

Our professional Capture and Analysis Software is included with each Logic Analyzer

Model DV509 is one of our newest models in the DigiView DV5 series of Logic Analyzers. With a sample rate of 1 Gsps, the DV509 more than doubles the fastest sample speed of our DV3209. This new model has 14 times the storage capacity, a larger threshold range, additional comression capabilities and USB SuperSpeed communication for automatic switchover to streaming from Store & Forward. As with other DigiView models, the DV5 series still features advanced trigger capabilities, inputs designed to handle ± 20 volts (continuous) and auto switching hardware compression.

This latest addition continues to feature the durability of our DV3 series by having an aluminum case, static protection and Ground current protection (ground lead to ± 12 volts). We also include high quality, connectorized channel cables (Strand count > 60) with a micrograbber clip for each channel and ground connection.

Our professional Capture & Analysis software, cables and micro clips and flexible stand are included at no additional cost.

Key Features:

- Sampling Mode: 500 Msps / 1 Gsps
- Physical Channels: 9 / 4
- Adjustable Threshold (-4V to +4V)
- Voltage tolerance range (+- 20 volts)
- Multi-Mode, Intelligent Compression
- Auto-resetting Ground current Protection
- Extra ESD protection
- Channels are Reverse-Voltage protected
- Channels are Over-Voltage protected
- Internal memory: 128 Mbit
- Store & Forward + Streaming (auto)
- USB 3.0 (SS) or USB 2.0 (High Speed)
- USB powered
- Requires Windows 7 (or greater) OS
- Ships with DigiView version 9.0 Software

- **Product Summary:**
- **TechTools DigiView DV509 Logic Analyzer**

DV509 Contents:

- Analyzer, Channel Cable, USB Cable, Micro grabber Clips and Spider Stand/hanger
- **Description:**
- Professional USB Logic Analyzer and Protocol Analyzerwith two sample modes: 500 Msps @ 9 Channels or 1 Gsps @ 4 Channels. DV509 offers more features and a better price than traditional stand-alone units or comparable PC based units.
- **Manufactured By:**
- TechTools, Rowlett, Texas, U.S.A.