

About ITIC

International Test Instruments Corporation designs, manufactures and sells high-quality, full-featured but at the same time low-cost protocol analyzers. We do not have the overhead of a large marketing and sales organization but instead sell directly from engineer to engineer, passing on the cost savings to you, our fellow Engineers. This allows us to offer quality products priced far below other protocol analyzers on the market.



1480A Overview

- Organizes the USB protocol data into an hierarchical tree view which reflects the nesting of the actual USB protocol on the bus.
- Supports all USB 2.0 speeds (Low-speed, Full-speed and High-speed)
- Automatically detects link speed as USB devices are connected to the link under test
- FPGA-based design allows automatic update of firmware and software without user involvement
- Decodes and displays all standard USB Descriptors, Transactions and Packets for easy and quick analysis
- Decodes and displays all bus events down to the most detailed differential D-/D+ bus state changes with 16.67 ns resolution.
- Drivers and software are available for all 32-bit and 64-bit Windows platform (Windows XP and newer)
- A very small physical format and a bus-powered design allows easy transportation and convenient use with laptops (only 4.90" x 4.10" x 1.4" / 8.8oz or 125 x 105 x 35 mm / 250g).
- Designed, manufactured and supported in the U.S.A.

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ITIC 1480A USB 2.0 Protocol Analyzer



International Test Instruments Corporation

Quality Engineering—Quality Instruments



1480A Software Overview

The 1480A software decodes and displays the captured USB data in a hierarchical tree view which allows large amounts of data to be displayed in very compact form.

USB Descriptors, Transactions and Packets are decoded in great detail which allows easy bus traffic analysis at a mere glance.

USB devices communicated with during the capture session are displayed in a separate 'Discovered Devices' view which enables device enumerations to be found quickly in the trace data.

The 'Node Finder' view records statistics about captured packets and transactions and allows direct jumps to any information in the trace, even if located deep inside the protocol hierarchy.

Visit our web site for a complete 1480A software tutorial and software downloads.

Hierarchical Protocol Tree View

Organizes the USB protocol data into an hierarchical tree view which reflects the nesting of the actual USB protocol on the bus. This greatly eases understanding of the USB protocol.

USB Protocol Item Data

The right side of the Protocol View displays payload data for the selected protocol item as well as relative or absolute timestamps with 16.67 ns resolution.

Item	Device	Endpoint	Interface	Status	Speed	Payload	Time (min.sec.ms.us:ns)
Host Chirp	0			OK	HS		00.04:677.201.016
Start of Frame Packets (875)				HS		638.0 -> 747.5	00.04:749.278.150
Device Request (Set Address: 1)	0	0	0	OK	HS	No data	00.04:858.566.516
Start of Frame Packets (499)				HS		747.7 -> 810.1	00.04:858.795.366
Device Request (Get Descriptor: Device)	1	0	0	OK	HS	18 bytes (12 01 00 02 09 00 01 40 E3 05...	00.04:921.094.316
Start of Frame Packet				HS		810.7	00.04:921.805.266
Device Request (Get Descriptor: Configuration 0)	1	0	0	OK	HS	9 bytes (09 02 19 00 01 01 00 E0 32)	00.04:921.923.783
Start of Frame Packets (3)				HS		811.2 -> 811.4	00.04:922.180.316
Device Request (Get Descriptor: Configuration 0)	1	0	0	OK	HS	25 bytes (09 02 19 00 01 01 00 E0 32 09...	00.04:922.470.466

Name	Value	Dec	Hex
bLength	Valid	18	12
bDescriptorType	DEVICE	1	01
bcdUSB	2.0.0	512	0200
bDeviceClass	Device Class defined ...	9	09
bDeviceSubClass	0	0	00
bDeviceProtocol	1	1	01
bMaxPacketSize0	64	64	40
idVendor	Genesys Logic, Inc.	1,507	05E3
idProduct	0660	1,632	0660

Device	Vendor	Product
0	05E3 (Genesys Logic, Inc.)	0660 (Unknown)
1	05E3 (Genesys Logic, Inc.)	0660 (USB2.0 Hub)
2	0000 (Unknown)	0000 (Unknown)

Details View

Displays the details of the selected Device Request, Transaction or Packet. Additional tabs also display search results and trace marker views.

Additional Views

Various views are available that ease navigation to any protocol item, display of hexadecimal payload data and display of low-level PHY data.

Discovered Devices View

Displays and allows quick navigation to the connection sequence of all discovered devices in the trace data.