

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 alternatives on the market.

ITIC 1480A USB 2.0 Protocol Analyzer

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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, Fullspeed 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" / 8.80z or 125 x 105 x 35 mm / 250g).
- Designed, manufactured and supported in the U.S.A.

International Test Instruments Corporation

From Engineer to Engineer

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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.

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џ Item			Device	Endpoint	Interface	Status	Speed		Payload		Time (min.sec:ms:us:ns)	
Start of Frame Packet							HS	213.5			00.09:135:689:183	
Device Request (Get Descriptor: Configuration 0)			1	0	0	OK	HS	9 bytes (09 02 23	00 01 01 00	0 (00 () 0	00.09:135:781:033	
Start of Frame Packets (2)							HS	214.0 -> 214.1		00.09:136:064:233		
Device Request (Get Descriptor: String 0)			1 0		0	OK	HS	4 bytes (04 03 09 04)			00.09:136:306:466	
Device Request (Get Descriptor: String 2)			1 0		0	OK	and the second s		30 00 30 00	00.09:136:558:300		
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	Get Descriptor: Configura	ation 0)				OK	HS	35 bytes (09 02 2	3 00 01 01	00 C0 00 03	00.09:137:194:066	
Start of Frame Pa	ickets (2)						HS	215.4 -> 215.5			00.09:137:564:466	
🛛 🙀 Device Request (Get Descriptor: String 0)			1	0	0	OK	HS	4 bytes (04 03 09	04)		00.09:137:808:016	
Attributes.MaxPower	0 mA	0	00			Iten	n	Count	Current	Previous	Next	
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OTG Descriptor Details					∃ → T	oken Packet	ts	54592	54592 1 Goto Previous		CE DAVIS	
Name	Value Dec		Hex		Bus Events			16	1	Goto Previous	Goto Next	
_ength	Valid			E	🕀 🕂 Handshake Packets			45697	1	Goto Previous	Goto Next	
DescriptorType	OTG 9		09		🕀 🏓 Transactions			45703	1	Goto Previous	Goto Next	
Attributes, Reserved			00		🗄 📑 Device Requests			23	1	Goto Previous	Goto Next	
			00		? Ir	Invalid Packets		0	0	Goto Previous	Goto Next	
Attributes.HNP Support	Supported	1	1	1		⊡			1	Goto Previous	Goto Next	
Attributes.SRP Support	Supported	1	1								45	
Name	Interface Descrip ., Detail	s Dec	He									
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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.

Node Finder View

This view displays statistics of the protocol items captured and allows immediate jump to any of the protocol items in the captured trace data.