USB EXPLORER



Fully Featured USB 2.0 Protocol Analyzer

The USB Explorer 200 is a high end USB 2.0 protocol analyzer that helps producing better USB devices in less time. It monitors USB events and records traffic exchanged on a USB cable, usually between a host and a device. When capturing traffic, a real-time statistics window displays advance information about the nature of transmitted transactions. The USB Explorer 200 exists in several distinctive editions tailored for the most demanding users.

- ✓ Supports all three USB 2.0 speeds (up to 480 Mbit/s)
- ✓ No need for an external power supply
- ✓ Non-intrusive analysis does not affect the Link Under Test
- Evolving architecture with upgradable components
- ✓ Automatic detection of Link Under Test speed



WIRELESS USB EXPLORER

Next-Generation Certified Wireless USB Protocol Analyzer

The Wireless USB Explorer 300 is a protocol analyzer capable of analyzing both WiMedia's ultra wideband and Certified Wireless USB protocols. Certified Wireless USB from the USB-IF, based on WiMedia's ultra wideband, is the leading technology for freeing people from wires. The Wireless USB Explorer 300 records traffic exchanged over the air between devices and displays the resulting decoded information in a convenient way.

- ✓ Displays UWB and Wireless USB protocols in easy to use hierarchical views
- ✓ Automatically deciphers encrypted data payloads
- triggers ✓ Large memory enables high

✓ Displays traffic in real time with

no need to set up complex

data throughput handling

Smooth ^{your}Path_{to} Success

...with a USB Protocol Analyzer!

Why is a USB Protocol Analyzer such an invaluable ally?

A USB protocol analyzer is the single most important tool for improving the quality and reliability of USB subsystems. It is an invaluable tool for eliminating tricky errors and compatibility problems before they reach your customers.

A USB protocol analyzer enables engineers to actually see what the data on the USB bus looks like. Connected between a computer and a peripheral, the USB protocol analyzer records all data, electrical states and control information transmitted on USB. It affects neither communication nor peripheral behavior. Analysis Compute

Switch to surfing at higher speed towards your USB development dreams! Make sure to get one for your next project!



Find out more at www.ellisys.com

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implied.



Utmost value within Every User's Reach Value

ellisys

Power
Activity
Tripper

Link Under Test

Use Ellisys USB Analysis Solutions to:

- Accelerate time to market
- Improve quality and reliability
- Save on development costs
- Prevent intricate problems





Overview

Protocol analyzers are essential tools for developing wired or wireless devices. They enable developers to save on development costs and reduce time to market by optimizing devices' behavior.

Ellisys' protocol analyzers display bus states and packets sent, decode descriptors and detect errors or incompatibilities in devices or drivers. Straightforward to use, they are the ideal companion for anyone developing wired or wireless USB devices, hosts, embedded software or drivers.

Ellisys provides a wide range of protocol analyzer tailored for everyone needs and budget. See www.ellisys.com to find up to date product specifications and prices.

Applications

- Captures traffic to assist development of devices, hosts, firmware and drivers
- USB enumeration verification
- USB drivers and software stacks debugging Monitors communication
- reliability and efficiency

Benefits

- Saves on development and maintenance costs
- Prevents simple errors from becoming intricate problems
- Improves quality and reliability of USB subsystems

ellisys

- Streamlines development and testing processes
- Simplifies the overall integration of a USB solution
- Accelerates time to market

Protocol levels are clearly defined on screen

Transfers, transactions and packets are visualized simultaneously. Useful information is available in a clear and concise fashion on screen. Within a split second you have grasped precisely what is happening on the bus.

Adaptable interface to users' specific needs

Panes can be set up as you choose. The amount of data on display can be adjusted as you wish. Presentation is optimized granting a fast grasp of the transactions' sequence.

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		→ SETUP packet		2	0		HS		0.320 820 316	descri	
		→ DATA0 packet					HS	8 bytes (80 06	0.320 820 650	should	
		← ACK packet				ACK	HS		0.320 821 149		
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		E 🔁 OUT transaction		2	0	ACK	HS	No data	0.320 882 249	🗼 bNum	
		🗉 🗱 GetDescriptor (Configuration)		2	0	OK	HS	32 bytes (09 02	0.321 149 249	-	
		🗉 🔯 GetDescriptor (String lang IDs)		2	0	OK	HS	4 bytes (04 03	0.321 516 216	🐺 bCont	
				2	0	OK	HS	34 bytes (22 03	0.321 708 183	🗼 bmAtt	
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User-friendly and powerful protocol filters

Any protocol element can be filtered by straightforward common text criterions. Sta Frames, Nak transactions, Split transact and even bus states can be hidden or sh with just a mouse click.

All relevant information on sight without overloading the screen

Since consecutive elements are merged in one line, there is no chance of missing vital information, which would otherwise be drowned in a throng of data. Every element detail remains available at hand.

Any sought after information with easy reach

Search modes for text, data pai protocol elements or errors enable find specific elements with power and ease.

Every bit of clever information as detailed as you wish... available just a mouse click away!

Download our USB Analysis Software and several relevant samples from www.usbexplorer.com/download.php

Detailed information messages

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Information messages guide developers through analysis activities or complex debugging procedures. Eventual errors or warnings stand out clearly, providing detailed descriptions.

etDescriptor (Configuration)

The host has requested less data than the total length specified in the configuration descriptor. Although this is not an error, be aware that some descriptors (interface, endpoint) may be missing. Usually a complete request should follow.

Configuration descriptor 🛛 🕹 🕺										
Name	¥alue 🧉	Dec	Hex	Bin 🔴						
bNumInterface	1	1	0×01	00000001						
bConfigurationValue	1	1	0x01	00000001						
bmAttributes. RemoteWakeup	Not supported	0	0x0	0						
bmAttributes. SelfPowered	No, Bus Powered	0	0×0	0						
DMaxPower	400 mA	200	0xC8	11001000						



High-level decoding of numeric values helps developers in achieving intricate tasks

The analysis software decodes numerical values and translates them plainly to the developer. Bit fields are outlined to illustrate their relevant information contents

Numerical values of each field are available at a mouse click

Numerical values are concealed by default in order to alleviate presentation but can be available in different formats with a mouse click.

Flexible data presentation

Every element's data can be plainly spotted. Multiple options enable one to obtain the most suitable data display for a given task. Selected fields' raw data is highlighted.