

# Advisor T3 SuperSpeed USB Analyzer



## Key Features

- CATC Trace™**  
 Expand and collapse transactions for fast interpretation of USB traffic
- 2 GB Memory and Spool-to-Disk Capture**  
 Extended recording for analysis and problem solving
- Fast Signal Locking**  
 Accurate capture of 5 Gb/s traffic
- Hardware Triggering**  
 Isolate important state changes, specific errors or data patterns
- Full Class Decoding**  
 UAS, Mass Storage, 3.0 Hub, PTP/Still Image, Printer, PictBridge, Media Transfer Protocol (MTP), and all popular USB device classes
- Extensive Decodes**  
 Mass storage, Bluetooth HCI, Hub, PTP/Still Image, Printer, Human Interface Device (HID), Audio, Video and Communication
- Raw Bit Recording**  
 View and correlate low-level 10-bit symbols
- Hardware Filtering**  
 Automatically exclude non-essential traffic including IDLEs, TS1, TS2, SKPs and link commands
- Intelligent Reporting**  
 Automatically report event metrics and flag over 20 common USB errors
- LTSSM View**  
 Provides a graphical model of the logical link states occurring within a trace
- Trigger IN/OUT and Sync**  
 Trigger external instruments or synchronize timing from multiple Advisor T3 analyzers (cable sold separately)

Teledyne LeCroy's Advisor™ T3 is an ultra portable SuperSpeed USB 2.0/3.0 analyzer that delivers market-leading accuracy at an extraordinary price. Designed to put precision USB protocol test tools in the hands of every engineer, the Advisor includes all the essential features for debugging SuperSpeed USB devices.

Based on Teledyne LeCroy's market-leading Voyager verification system, the Advisor T3 delivers many of the same advanced features including event triggering and the legendary CATC Trace viewer. This intuitive hierarchical display can be expanded to show packet level events or collapsed to show complete transfers. A comprehensive tool set allows traffic to be filtered, searched, and decoded for faster analysis.

The Advisor T3 provides loss-less capture of USB traffic including SuperSpeed link training, state changes, and LFPS signals. Hardware-based event triggering can be specified at every level including bus states, ordered sets, header fields, and even logical SCSI operations. The Advisor T3 Standard and Pro models provide simultaneous capture of USB 2.0 and 3.0 for easier testing of SuperSpeed hub devices.

The image displays two screenshots from the Advisor T3 software. The top screenshot shows a detailed view of a USB transaction, including a table of packets with columns for Transfer ID, Direction, Endpoint, Length, and Time. A pop-up window displays the INQUIRY command details, such as 'INQUIRY', 'LUN: 0', 'Device ID: 0x12', and 'Device ID: 0x12'. The bottom screenshot shows the 'Errors' report window, which lists various error types and their counts.

Type	Total
Bad Frame Length	0
Bad Turnaround/Timeout	0
Bad Data Toggle	0
Bad Frame/Frame Number	0
Analyzer Internal Error	0
Last Byte Incomplete	0
Bad OTG Signal Value	0
USB 3.0 Bad CRC5	0
USB 3.0 Bad CRC16	0
USB 3.0 Bad CRC32	0
USB 3.0 Disparity Error	2
USB 3.0 10 Bit Symbol Error	0
USB 3.0 Unknown Packet	5
USB 3.0 Framing Symbol Error	0

Find the issues fast with  
Advisor T3 bus error reports

The Advisor's unique small form-factor fits within any briefcase yet boasts 2 GB of recording memory. The system also offers spool-to-disk capture, making it well suited for testing software drivers or analyzing system performance. Like all Teledyne LeCroy analyzers, the Advisor's field-upgradeable firmware allows the system to evolve with the USB specifications.

### Flexible and Upgradeable

The Advisor T3 Basic model is the industry's lowest priced USB 3.0 analyzer. The Advisor T3 Standard Edition adds more capable triggering for 2.0/3.0. The Standard model is also available in a USB 2.0 only configuration that is upgradeable to 3.0. For SuperSpeed power users, the Pro upgrade option brings advanced triggering, real-time metrics and other Voyager Pro software features to the Advisor T3 Standard model.

## Specifications

Host Machine Minimum Requirements <small>(For optimal performance, please refer to our recommended configuration in the product documentation.)</small>	Microsoft Windows® XP, Windows Vista, Windows 7, Server 2003 or Server 2008; 2GB of RAM; hard drive with at least 200MB of free space for the installation of the software and additional space for recorded data; display with resolution of 1024x768 with at least 16 bit color depth; USB 2.0 port or 100/1000 Mbps Ethernet.
Protocols Supported	USB 1.0, 1.1, 2.0 and 3.0
Recording Memory Size	2 GB
Data Rates Supported	1.2 Mb/s, 12 Mb/s, 480 Mb/s, 5 Gb/s
Recording Channels	1
Data Bus Interface	Half duplex differential (USB 2.0) Dual simplex differential (USB 3.0)
Form Factor	Enclosed Chassis
Front Panel Indicators	Platform LEDs: Power, Status Analyzer LEDs: Rec, 2.0, 3.0, Trig
Front Panel Connectors	Analyzer—one (1) USB 2.0/3.0 recording channel with USB 3.0 "A" & "B" connectors
Carrying Case	Included
Dimensions (W x H x D)	15 x 3 x 12.7 cm (6" x 1.25" x 5")
Weight	0.23 Kg (0.5 lbs)
Power Requirements	100-240V, 50-60 Hz (universal input), 1.0A
External Trigger	Trigger IN/OUT & Sync MicroD (proprietary)
Environmental	Operating Temperature: 0 to 55 °C (32 to 131 °F) Non-operating: -20 to 80 °C (-4 to 176 °F) Operating Humidity: 10 to 90% RH (non-condensing)



## Ordering Information

### Product Description

### Product Code

#### Advisor T3 Systems

Advisor T3 USB 3.0 "Standard" Protocol Analyzer System	USB-T0S3-A01-X
Advisor T3 USB 3.0 "Basic" Protocol Analyzer System	USB-T0B3-A01-X
Advisor T3 USB 2.0 "Standard" Protocol Analyzer System	USB-T0S2-A01-X

#### Upgrades and Options

Advisor T3 USB 3.0 "Basic" to USB 3.0 "Standard" Upgrade	USB-T0B3-A01-A
Advisor T3 USB 2.0 "Standard" to USB 3.0 "Standard" Upgrade	USB-T0S3-A01-A
Advisor T3 USB 3.0 "Standard" to USB 3.0 "Pro" Upgrade	USB-T0P3-A01-A



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