

# Beagle™ USB 480 Protocol Analyzer



## Key Features

### Real-Time Non-Intrusive Monitoring

- High-/Full-/Low-Speed USB 2.0 (up to 480 Mbps)
- Digital inputs and outputs to synchronize with oscilloscopes or logic analyzers
- 16.7 ns resolution

### Real-Time USB Class-Level Decoding

- HID, Audio, Video, Still Image, Printer
- Mass Storage, Hub
- Network, Mobile, CDC

### Data Center™ Software

- Real-time display, search, and filtering of captured data
- Descriptor decoding
- Automatic bus speed detection
- Capture traces to >25 GB
- Cross-platform support for Windows, Linux, Mac OS X

### Beagle API

- Create custom software applications
- Example files included

### USB Bus-Powered

- Portable
- No extra power adapters needed

### Quality

- CE, REACH, RoHS
- Manufacturing: ISO 9001, ISO 13485, AS9100C, ITAR
- One year warranty

An ever-wider array of devices and the increasing pressure to minimize costs means that you need to get the most out of your embedded systems interface tools - and the Beagle USB 480 Protocol Analyzer is expressly designed to enable your competitive edge.

The Beagle USB 480 Protocol Analyzer is the ideal tool for debugging and monitoring traffic on your high-, full-, or low-speed USB based applications. The Beagle analyzer provides a high performance and powerful monitoring solution in a small, portable package. It provides fast, interactive, real-time visibility into the protocol layer of your embedded system.

### Enhanced Visibility

- Interactive debugging: make a change and see the result in real-time
- Real-time filter displays user-defined views
- Longer recording buffer than a scope (data streamed to PC's memory)
- Collaborate easily by sharing saved captures with colleagues with Data Center software

### Class-Level and Descriptor Parsing


- Class-level decoding translates raw data into human-readable text in real-time
- Descriptors parsed in real-time during enumeration

### Enumeration Debugging

The Beagle USB 480 analyzer is capable of analyzing all USB traffic that is passed through its ports, including the enumeration process. Many USB communication errors occur during this initial "handshake" between host and device. The analyzer is able to capture and display low-level bus events (K/J chirp pairs), dataless transactions (suspend/resume events), and parse all the descriptors, enabling USB developers to quickly and easily identify problems in their application.

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## Applications

Audio	HID	Mobile Broadband	Tablets	<b>Scan for Video</b> 
Bridges	Hubs	Mobile Phones	Video	
Cameras	Mass Storage	Music Players		

## Specifications

### Software

The Data Center™ Software is a bus monitoring software application that displays captured USB, I2C, SPI, and CAN bus data in true real-time through the Beagle™ line of hardware protocol analyzers and the Komodo™ line of CAN interfaces.

#### Data Center Software Features

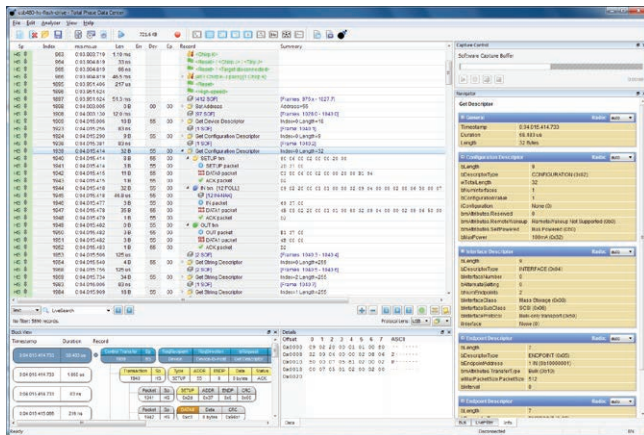
- LiveDisplay™ technology allows for real-time interactive display and analysis of high-, full- and low-speed USB (up to 480 Mbps)
- Automatic class-level decoding and descriptor parsing
- LiveFilter™ and LiveSearch™ tools allow for real-time interactive filtering and searching
- Collaborate easily by sharing capture files
- Export saved capture files to CSV format

#### Beagle API

- Create custom applications using the flexible, powerful, and well-documented Beagle API
- 32- and 64-bit support for C/C++/C#, Python, .NET, VB.Net, VB 6

#### Operating Systems Supported (32-bit and 64-bit)

- Windows: 7, 8, 8.1, 10
- Linux: Red Hat, SuSE, Ubuntu, Fedora
- Mac OS X: 10.7-10.14



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### Hardware

#### USB Monitoring:

- High Speed, 480 Mbps
- Full Speed, 12 Mbps
- Low Speed, 1.5 Mbps

#### Target Device Port:

USB 2.0 Type A receptacle

#### Target Host Port:

USB 2.0 Type B receptacle

#### Analysis Port (connects to PC):

- USB 2.0 Type B receptacle
- Analyzer is bus-powered

#### Digital I/O Port:

- Mini DIN 9 connector
- 4 inputs, 4 outputs, 1 ground
- Digital inputs are rated for 3.3 V and max 30 MHz
- Digital outputs are rated for 3.3 V and 10 mA

#### Dimensions (W x D x L)

70 mm x 26 mm x 114 mm (2.76 in x 1.02 in x 4.49 in)

#### Weight

97.5 g (0.21 lbs)

#### Operating Temperature

10 to 35 °C (50 to 95 °F)

Ordering information	
Beagle USB 480 Protocol Analyzer	
Part Number	TP320510
Country of Origin	USA
HTS	9030890100
ECCN	EAR99