

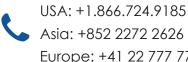


Bluetooth Tracker[™]

Ultra-Portable Bluetooth® Low Energy Protocol Analyzer

Portable • Easy • Efficient

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www.ellisys.com/btr1

Ellisys Bluetooth Tracker[™]

Ultra-Portable Bluetooth Low Energy Protocol Analyzer



Powerful Ellisys Features

- All-in-One: Concurrent capture of Bluetooth Low Energy, Wi-Fi[®] 1x1, raw spectrum, HCI and logic, generic UART, SWD, SPI and I2C, all synchronized to nanoseconds precision
- Wideband Capture: Rock-solid capture of all Bluetooth Low Energy channels
- Widely Acclaimed Software: The Ellisys software application provides intuitive understandings of complex protocol and RF behaviors, and flexible configuration and control to give engineers the insights they need
- Extremely Compact: Pocket-sized at 75 x 75 x 17 mm (2.9 x 2.9 x 0.7")
- USB Powered: Ultimately portable, convenient and environmentally friendly
- Reprogrammable Digital Radio: Evolvable by software to protect your investment

Connectors

Enclosure

Warranty

processor

I GBytes of RAM

framework 4.6.1

100 g (0.2 lbs)

Hardware Upgrade

Capture: Standard SMA female

Sync: Multi-unit synchronization ports

• 75 x 75 x 17 mm (2.9 x 2.9 x 0.7")

The Ellisys Rainbow[™] engine is

Maintenance and Licensing

Free lifetime updates

no maintenance fees

- Control: USB 2.0 connection to control PC

Power: Optional 5V power input, max 3W

automatically updated with each software

release (no user intervention required)

Free full-featured viewer application

- no additional licenses needed

Two-year limited warranty for

One-year limited warranty for

Basic and Standard editions

Minimum Requirements

at least 65,536 colors

USB 2.0 EHCI host controller

Windows[®] 7 or higher .net

Use Ellisys hardware on any computer

Professional and Enterprise editions

Intel Pentium 4, 1 GHz or compatible

1280 x 1024 display resolution with

- Logic: 16 logic signals

Technical Specifications

Bluetooth Capture Characteristics

- Ellisys Rainbow™: Wideband, concurrent capture of all Bluetooth LE channels
- Frequency band: 2.402-2.480 GHz
- Sensitivity range: From -90 to +15 dBm
- Gain: Programmable from -30 to +15 dB
 Modulations: All Bluetooth LE modulations
- (GFSK 1 Mbps and 2 Mbps)
- Baseband: Support of Bluetooth 5.x, upgradeable by software

Wi-Fi Capture Characteristics

- 802.11 a/b/g/n
- Channel width 2.4GHz: 20 MHz
- Channel width 5GHz: 20 MHz
- 11n MCS 2.4 GHz 20 MHz channel: 0 to 7
- 11n MCS 5 GHz 20 MHz channel: 0 to 7

Logic Capture Characteristics

- Maximum bandwidth: 50 MHz
- Sampling precision: 5 ns
- Supported input voltage: 1.8 to 3.3V

HCI Capture Characteristics

 UART/SPI transports: Up to 8 Mbit/s, automatic detection of all parameters

Embedded Memory

- 128 MB of FIFO memory
- Data is stored in highly optimized format
- Analyzed data is uploaded in real time through USB 2.0 connection

Timing

- Clock: ±10 ppm frequency accuracy over -10 to +60 degrees Celsius range
- Bluetooth LE timestamp accuracy: 125 ns
- Wi-Fi timestamp accuracy: 1 us
- Logic timestamp accuracy: 5 ns

More information at: www.ellisys.com/btr1

 Mesh Support: Includes full support for Bluetooth Mesh network topologies

Wi-Fi: Debug your Wi-Fi a/b/g/n and Bluetooth LE

connections simultaneously, as well as coexistence

- LC3 Auto-Detect: Proprietary technology to detect and decode LC3 traffic even without capture of configuration parameters
- Raw RF Spectrum Capture: Characterize the raw wireless environment and visualize co-ex issues
- All Protocols and Profiles: Best-of-breed protocol decoding
- Logic Analysis: Visualize digital signals such as GPIOs, interrupts, debug ports, etc, concurrently and perfectly synchronized with your Bluetooth LE and Wi-Fi traffic
- Free Maintenance: Hassle-free, no-cost lifetime software updates

Ordering Information

Description	Code
Ellisys Bluetooth Tracker Basic	BTR1-
Hardware unit with Basic features set	LE-BAS
Ellisys Bluetooth Tracker Standard	BTR1-
Hardware unit with Standard features set	LE-STD
Ellisys Bluetooth Tracker Pro	BTR1-
Hardware unit with Pro features set	LE-PRO
Ellisys Bluetooth Tracker Enterprise	BTR1-
Hardware unit with Enterprise features set	LE-ENT

Configurations

Editions	BAS	STD	PRO	ENT
Wideband Bluetooth LE Capture	х	x	x	х
Bluetooth LE 1 Mbps	х	x	x	х
Bluetooth LE 2 Mbps			x	х
Bluetooth Long Range			x	х
Bluetooth Advertising Extension			x	х
Wi-Fi 11n 1x1				х
Spectrum Capture				х
HCI Capture (UART, SPI)			x	x
Logic Capture			x	х
WCI-2 Capture				x
Audio I2S Capture				x
Protocol Decoding		x	x	x
Advanced Software Features ¹	x	x	x	х
Warranty	1 year	1 year	2 years	2 years

1. Instant Timing, Instant Piconet, Instant Channels, Instant Throughput, and Instant Audio features

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