Frontline® Sodera® LE
Bluetooth® Low Energy Protocol Analyzer

OVERLOAD   POWER

frontline
SODERA *le*

ANTENNA   WIRED   EXT CLOCK

Key Features and Benefits

- Captures data concurrently from multiple Bluetooth low energy devices for focused Internet of Things debugging

- Software defined radio architecture

- Intuitive analysis of multiple wireless devices and connections

- Small footprint for portability or field applications

- Frontline software and familiar data views

- Built-in attenuation for conducted (wired) sniffing in noisy environments

- Automatic gain control and user configurable gain settings

- Support for CSRMesh and Bluetooth mesh technology

- Support for latest important LE features like 2Mbps, advertising extensions, long range and other key updates

- Decoding support for Bluetooth 4.0, 4.1 4.2 and 5 specifications

- Wideband radio captures the entire 2.4 GHz ISM band simultaneously

- Software-defined radio architecture ready for the constantly evolving and changing Bluetooth specifications

The Frontline Sodera LE Protocol Analyzer is designed to help developers debug Bluetooth low energy data communications problems, e.g. insufficient throughput, power consumption, and timing issues.

Bluetooth low energy is the wireless technology of choice for engineers and developers creating "Internet of Things" devices. But since changes to the Bluetooth specification, particularly relating to low energy, are coming practically every day, it is critical to be able to debug the latest adopted and emerging profiles and protocols to take advantage of the ongoing advances in wireless communications.

The Frontline Sodera LE Wideband Bluetooth Low Energy Protocol Analyzer is designed with these users in mind. It is tuned to capture Bluetooth low energy packets in the 2.4GHz band, which allows Internet of Things developers to focus only on the data they need.

View data captured by the Frontline Sodera LE in the Frontline software you already use for Bluetooth protocol analysis. Sort, search and drill down to decode each low energy frame.

Bluetooth®
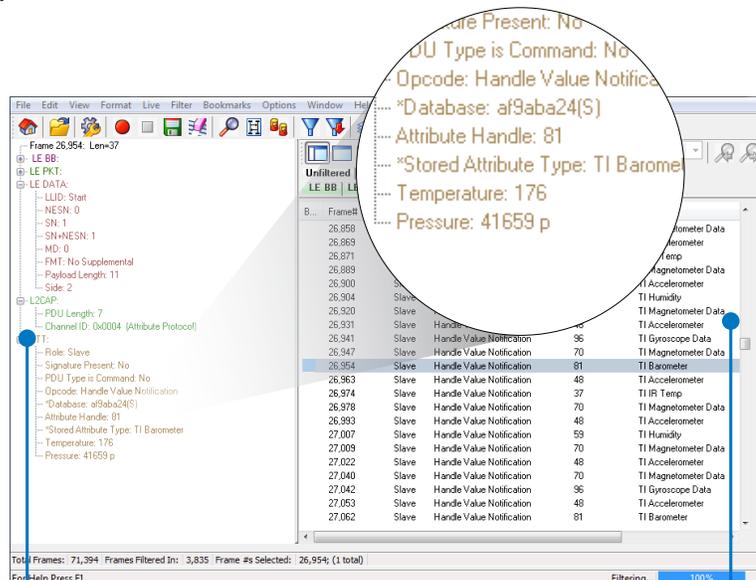
Decode Pane shows comprehensive layered decoders of each frame/message with clear, concise descriptions.

Summary Pane displays a one line overview of each data frame/message.

Specifications

Supported Systems
- Operating System: Windows 7/8/10
- USB: USB 2 and 3.0 High Speed

Minimum Requirements
- Processor: Core i5 at 2.7 GHz
- RAM: 4GB
- Free Hard Disk Space: 20 GB

Hardware Specifications
- Dimensions: 160 mm W x47 mm H x159 mm L
  (6.3" X 1.9" X 6.3")
- Weight: 1.3 kg (2.87 lb)
- Humidity: Operating: 0% - 90% (0 °C – 35 °C), non-condensing
- Temperature: 0 °C to +40 °C (32 °F to +104 °F)
- Power Input: 9 VDC (tip positive)
- Max Power: 12 W
- Timestamp resolution: 250ns

Gain Control
- AGC or programmable from 0 to 31.5dB in 0.5dB steps

Core Specifications Supported
- 4.0; 4.1; 4.2; 5

Supported LE Profiles (above core spec)
- ATT

Supported LE Protocols (above core spec)
- Alert Notification
- Automation IO
- Battery
- Blood Pressure Monitor
- Current Time
- Cycling Speed and Cadence
- Device Information
- DST Change
- Find Me
- Generic Access Profile
- Generic Attribute Profile
- Glucose
- Health Thermometer
- Heart Rate Monitor
- HID over GATT
- Immediate Alert
- Link Loss Alert
- Network Availability
- Notification
- Phone Alert Status
- Proximity
- Pulse Oximiter
- Reference Time Update
- Runners Speed and Cadence
- Scan Parameters
- Time
- Tx Power
- Watchdog

Bluetooth Protocol Analyzer Comparison Bluetooth LE-Only Options

	Sodera Single-Mode LE Advanced	Sodera Single-Mode LE Base	Sodera LE
Dimensions (W x H x L)	6.25 x 2.125 x 6.5 inches	6.25 x 2.125 x 6.5 inches	6.3 x 1.9 x 6.3 inches
Decode all application layers	●	●	●
Wideband for easy device selection and data capture	●	●	●
Capture and decode unlimited complex topologies	●	●	●
Post-capture decryption	●	●	●
Full Mesh Support	●	●	●
Optional Bluetooth Protocol Expert System	●	●	●
Supports capture and decode of all BT Low Energy technologies	●	●	●
Supports Bluetooth 5	●	●	● **
Software defined radio that evolves beyond Bluetooth 5	●	●	
Upgradable to Dual-Mode (Low Energy and BR/EDR)	●	●	
Simultaneous capture of all Bluetooth 5 PHYs	●	●	
Includes Bluetooth Audio Expert System	●	●	
On-board battery	●	●	
Advanced Feature Set			
Sync with Frontline 802.11 for Wi-Fi coexistence analysis	●	*	
Excursion mode for captures without attached PC	●	*	
UART and USB HCI support	●	*	
Spectrum analysis	●	*	
Logic analysis	●	*	

*Upgrade Path Available   **User can select 1Mbps and 2Mbps or 1Mbps and Coded PHYs
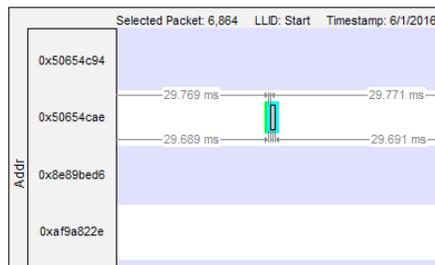
Bluetooth Timeline gives details on packet size, frequency and interframe spacing to help resolve throughput, power consumption and timing issues that may be impacting Bluetooth communications.
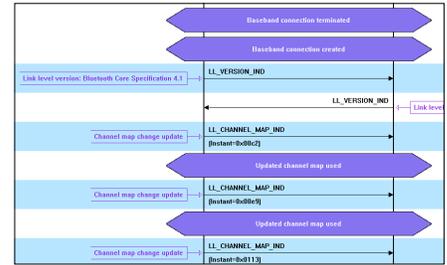
Message Sequence Charts tell the complete story of the Bluetooth connection in clear and descriptive linear terms that help to bring clarity to what can be an otherwise overwhelming flood of granular data.

PREMIUM MAINTENANCE - Frontline Sodera

Premium Maintenance for Frontline Sodera LE Bluetooth Protocol Analyzer ensures that your product is up to date with the latest software updates and features, Your Frontline Sodera LE product comes with one year of Premium Maintenance and includes:

- Updates addressing changes to the upported Bluetooth Specifications
- New software features
- New decodes
- Product bug fixes

Ordering Information

Product Description	Product Code
Sodera LE Protocol Analyzer	2014-24000-000

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