



SODERA™

WIDEBAND BLUETOOTH® PROTOCOL ANALYZER



The ComProbe Sodera Wideband *Bluetooth* Protocol Analyzer includes powerful ComProbe software and the Sodera Wideband *Bluetooth* hardware interface.

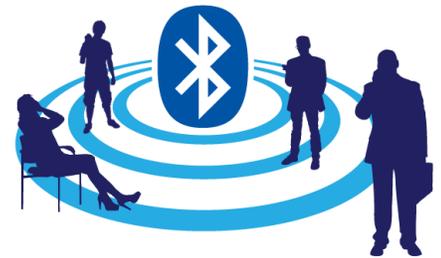
With one click, ComProbe Sodera captures every *Bluetooth* channel of your environment completely and effortlessly. See every BR/EDR and low energy *Bluetooth* device and connection in the air, including pre-connection traffic and SSP pairing, then select the connections of interest for decryption and debugging at any time. Some scenarios require greater focus – for those times and places, the ComProbe Sodera gives you the flexibility to work with only the connections you care about without distraction. It is truly the best of all worlds – a wideband protocol analyzer that works the way you need it to work.

Key Features and Benefits

- **Wireless Captures**
Capture ALL over-the-air *Bluetooth* packets, fully synchronized and time stamped, in the 2.4 GHz band
- **Capture Now, Decrypt Later**
Every *Bluetooth* channel captured concurrently for decryption and analysis at any time
- **Does it All**
All profiles and protocols supported through *Bluetooth* 4.2.
- **Easy, Powerful, and Intuitive**
Analyze and troubleshoot captured data using Frontline's ComProbe software and data views
- **Analyze Multiple Piconets**
Intuitive analysis of multiple wireless devices and connections
- **Peerless Portability**
On-board battery and a small footprint means you can work when and where you need to
- **Fully Configurable**
Software-defined radio means no hardware changes required as the *Bluetooth* wireless technology evolves
- **Total Audio and Protocol Event Correlation**
Works with the Audio Expert System software module to quickly solve *Bluetooth* protocol related audio issues

The Big Picture

Once again, Frontline has redefined protocol analysis with a tool that makes it easier for professional developers and engineers to get great new wireless products to market faster. Simply turn on the ComProbe Sodera analyzer to capture all *Bluetooth* data in the air; both "classic" (BR/EDR) and low energy packets for your *Bluetooth* Smart and Smart Ready devices. Information is collected and recorded for decryption and analysis in real time or at any time after capture. Select the conversation you care about for those packets to be analyzed by the industry-best ComProbe software for the most reliable, complete and mature packet analysis in the world today, featuring full *Bluetooth* 4.2 support.



Information the Way You Need to See It

With Frontline's powerful ComProbe software, you can analyze and view *Bluetooth* data the way you need. "Frame Display" shows packets in tabular format based on profiles and protocols. Each individual packet is fully decrypted and decoded and then presented in an easy-to-see and use format. Use the "Timeline View" to see packets displayed sequentially in a clear graphical timeline. Need more detail? Just mouse over the individual packet and see packet information. Use the Packet Error Rate Statistics or "PER Stats" view to see packet error rates and *Bluetooth* channel management, or use "Message Sequence Charts" (MSC) for a high level display of interactions between devices. All views are synchronized with one another; with a single click in any view you are delivered to the same packet in another view. ComProbe Software provides all the tools you need to understand exactly what information is going between devices and the tools, helping you develop and debug your device FAST!

Convenience and Flexibility - Post-Capture Decryption

Want to capture now and decrypt and review later? No problem! Just start the ComProbe Sodera analyzer and begin capturing traffic, then save the collected complete raw capture data file that can be parsed, filtered, decrypted, and decoded at a later time. Once saved, you can conveniently parse, and reparse the data sent by devices of interest, and then send only that data to ComProbe software where those specific packets are fully decrypted, decoded, and made viewable in the various analysis tools and views like Frame Display and MSC. You can then save this filtered data in a capture file, which can be shared with your colleagues or reviewed later. The power is in your hands.

Protocol Analysis in Motion – Ultra Portability

Frontline has built its flagship product with the active professional in mind. No longer are test engineers and developers confined to the workbench – today, wireless technologies are mobile, requiring testing to be equally mobile. For this reason the ComProbe Sodera analyzer is built with size and portability in mind – being just over 6 inches wide and deep and weighing only about 2 lbs., it is the most powerful and compact whole band *Bluetooth* analyzer on the market. It also comes with powering options that include both an AC adapter and a 12V vehicle adapter for use in automobiles.

Frontline makes another quantum leap by building the ComProbe Sodera with an on-board battery for hassle-free testing in automobiles and mobile settings. If you need to cycle the vehicle power during testing, your *Bluetooth* captures will continue unaffected. You will capture everything in the air even when the power to the ComProbe Sodera analyzer is interrupted!

ComProbe is a registered trademark of Frontline Test Equipment, Inc.



Hardware Specifications

- **Power:**
9-17 VDC
- **Dimensions including feet and all connectors:**
6.25" wide X 2.125 tall" X 6.5 deep"
158.75 mm X 53.975 mm X 165.1 mm
- **Weight:**
2.2 lbs
- **Bus Type:**
USB 2.0 Mini B
- **Operating Frequencies:**
2402 MHz – 2480 MHz
- **Sensitivity Range**
-90.0 dBm to +23 dBm
- **Supported Demodulators**
BR/EDR and LE (GFSK, $\pi/4$ DQPSK, 8DPSK)
- **Temperature:**
T<50°C (122°F) = normal operating conditions, no user warning

50°C (122°F) <T<60°C (140°F) = over temperature operating conditions, user is warned unit is approaching thermal overload

T>60°C (140°F) = thermal overload, unit automatically shuts down

- **Humidity:**
Operating: 10% to 90% RH (noncondensing)
- **Regulatory Compliance**
PSE FCC part 15 B (USA)
CE (Europe) NRTL (UL, CSA, TUV)
ARIB T-66 (Japan) EMC
EN 60950

ComProbe Sodera is fully Bluetooth 4.2 compliant, as well as all previous Bluetooth specifications (1.0, 1.1, 2.0+EDR, 2.1+EDR, 3.0, 4.0, 4.1).



Audio Expert System

troubleshooting audio quality issues specifically related the *Bluetooth* protocol has been next to impossible – until now.

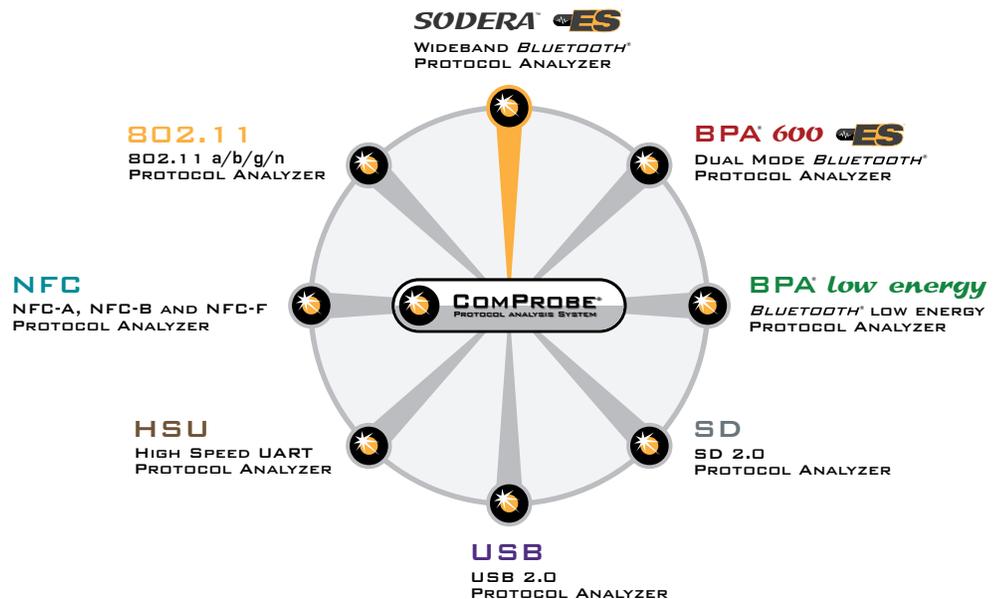
The Frontline Audio Expert software module for ComProbe software synchronizes audio, codec, and *Bluetooth* protocol events directly back to the trace. This allows you to pinpoint exactly where the problem began so that you can quickly find the root cause of the issue. Powerful and easy to use, this tool will help seasoned audio engineers and “new-to-audio” engineers alike by giving them the tools they need to quickly pinpoint the root cause of an issue and to identify possible solutions. Frontline’s *Bluetooth* Audio Expert works seamlessly with the ComProbe Sodera Wideband Bluetooth Protocol Analyzer.

Supported Configurations

- OS Supported: Win 7 and Win 8
- USB Port: USB 2.0 or USB 3.0 High-Speed

Minimum System Requirements

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



The ComProbe Modular Approach

ComProbe software is at the core of Frontline protocol analysis, allowing technology-specific hardware interfaces to work individually or in combination with other hardware interfaces. This modular approach gives the developer or analyst the widest possible range of scenarios for debugging complex communications.

To order or for more information:

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