

CATC BTTracer/Trainer



Advanced Design and Verification System for Bluetooth

BTTracer/Trainer™ is CATC's top-of-the-line design and verification tool for Bluetooth®. Combining a powerful Bluetooth protocol analyzer and a Bluetooth exerciser into a single CATC Universal Protocol Analyzer System™ (UPAS™), the BTTracer/Trainer provides a robust, flexible and efficient integrated environment for Bluetooth developers, testers and verifiers. BTTracer/Trainer is compliant as a Bluetooth v1.2 analyzer and supports Bluetooth v1.1 traffic generation.

BTTracer/Trainer incorporates all of the experience and knowledge CATC has gained since launching its Merlin design system, the world's first Bluetooth protocol analyzer. The result is a Bluetooth protocol analyzer/exerciser system that delivers all of the capabilities found in CATC's earlier Bluetooth design and verification systems along with new capabilities and features that will allow BTTracer/Trainer to become the number one design and verification tool in the Bluetooth industry.

BTTracer/Trainer has an optional second channel (as shown) allowing it to easily record all traffic in mixed piconet environments. The BTTracer analyzer can easily synchronize to the BTTrainer exerciser to quickly capture the results of tests and its robust



interface makes it simple to inject user defined errors, jitter or write complete verification test suites using a simple scripting language. The BTTracer analyzer has 512 MB of memory, an advantage during long recording sessions.

The BTTracer/Trainer is a reliable platform for Bluetooth product developers and manufacturers to do extensive in-house verification testing to help assure first pass success when certifying their products at a Bluetooth Qualification Test Facility (BQTF).

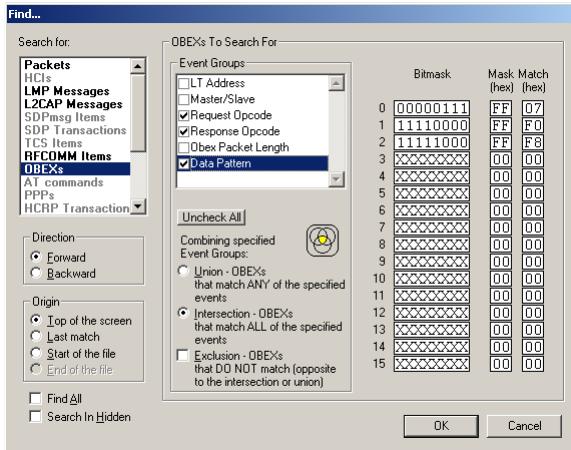
For complete product information, please visit www.catc.com.

FEATURES	BENEFITS
• CATC Trace Expert Software System	De-facto industry standard speeds up interpretation and debug of Bluetooth traffic.
• Extensive Protocol and Profiles Decoding	Automatically decodes: Baseband, HCI, LMP, L2CAP, SDP, TCS, RFCOMM, OBEX, AT commands, HCRP, HDLC, BNEP, HID, AVCTP, AVDTP, Handsfree and PPP (including LCP, CCP, CHAP, NBFCP, NetBIOS), IPv4, IPv6, TCP & UDP.
• Automatically Decodes Encrypted Traffic	Decodes entire piconet without requiring the need to participate in the piconet.
• Completely Non-intrusive or with Full Participation	Record piconet traffic using one of the analyzers non-intrusive recording modes or become a master or slave of the piconet using the BTTrainer mode.
• Injects Defined Errors	Tests robustness of the device under stress and allows validation of Baseband and LMP implementations. Also allows for testing to meet Bluetooth certification requirements.
• Automatic Device Listing	Captures and stores device info automatically, allows editing of device data including encrypted data for repeatable test benchmarks.
• Intelligent Reporting	Quickly identify and track error rates, abnormalities or timing conditions.
• Sophisticated Viewing	Selectively view Bluetooth protocol layers (from a single layer to all layers).
• Advanced Triggering	Isolate important traffic, specific errors or data patterns.
• Hardware Filtering	Faster analysis by removing non-essential fields from the trace.
• Integrated Protocol Analyzer/Exerciser on the CATC UPAS Platform	Protects investment by providing for future enhancements with its support of Bluetooth v1.2, as well as support of other protocols with the purchase of additional plug-in technology modules.
• 3 Year Hardware Warranty	Protect your investment with industry leading warranty.

POWERFUL SEARCH TOOLS

BTTracer/Trainer utilizes the CATC Trace™ to present captured data in an immediate, understandable and useful format.

The CATC Trace is a powerful and intuitive expert software system embedding detailed knowledge of the protocol hierarchy and intricacies, as defined in the protocol specification. The software allows the user to control the analyzer and set specific real-time triggering and filtering conditions. The CATC Trace utilizes a graphical display that has been optimized for fast and easy navigation through a captured traffic session.



Quickly isolate specific packets or transactions within a trace file using the CATC Advanced Search functionality



A robust toolset and advanced reporting capabilities make it easy to track and find critical information

Users are alerted as violations are detected at all levels of the protocol layering and can easily drill down on areas of interest or collapse and hide fields that are not relevant.

The display software operates independently of the hardware, allowing it to function as a stand-alone “trace viewer” that can be freely distributed.

For additional information on the CATC Trace, please download the White Paper from the CATC website:
<http://www.catc.com/support/whitepapers/index.html>

SPECIFICATIONS

Package Dimensions

Dimensions: UPAS 2500H
 12.2 x 12.2 x 3.5 inches (31.1 x 31.1 x 8.9 cm)
 BTTracer/Trainer Plug-in
 4.5 x 6.7 x 1.3 inches (each) (11.3 x 17.0 x 3.2 cm)

Connectors: UPAS:
 AC power connection
 External Trigger connection (TRIG IN/OUT, BNC)
 Host connection (USB, type “B”)
 BTTracer/Trainer Plug-in:
 Headset Connection (standard 2.5mm audio)
 Weight: UPAS: 7.5 lb. (3.4 kg)
 BTTracer/Trainer Plug-in: 1.0 lb. (0.5 kg)

Power Requirements

90-254 VAC, 47-63 Hz (universal input), 100W maximum

Environmental Conditions

Operating Range: 0 to 55° C (32 to 131° F)
 Storage Range: -20 to 80° C (-4 to 176° F)
 Humidity 10 to 90% non-condensing

Radio

Bluetooth v1.1 qualified
 Class 2
 FCC and CE compliant

Indicators (LEDs)

UPAS:
 Power (PWR) Illuminated when the UPAS is powered on
 Status (STATUS) Illuminated when the analyzer is functioning properly

BTTracer Module:

Recording (REC) Illuminated when the analyzer is actively recording data
 Triggered (TRG) Illuminated during power-on testing and when the analyzer has detected a valid trigger condition
 Synchronize (SYNC) Flashing indicates that the analyzer is tracking the defined slave or master device. Illuminated indicates that the analyzer is tracking an active piconet.

HCI Probe

Able to simultaneously probe and decode RS232, UART and/or BlueCore, along with piconet traffic (supports HCI probing for up to 3 IUTs)

Recording Memory Size

512 MB for trace capture, timing and control information

Host Compatibility

Requires a PC with a USB port
 Supports Windows 98/ME/NT/2000

LeCroy is a global leader in developing, manufacturing, and marketing electronic signal acquisition and analysis products and services.



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Inventory code: #142-02-500/Nov 2004