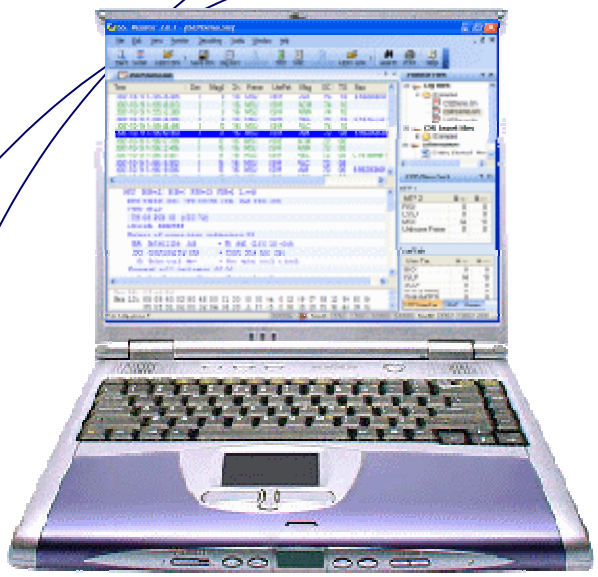
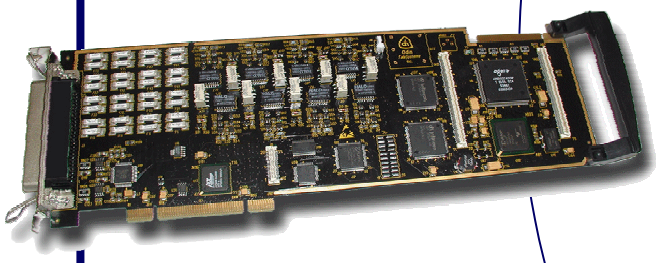
STINGA MOBILE
Monitor

- Extremely cost-efficient
- World class support
- Very easy to use
- Very Portable





Gain customers and money
by improving your networks and projects

Whether you're into mobile, VoIP, PSTN, or ISDN business,
get on top of your problems now!

UTEL SYSTEMS
Your customers will notice

Odin TeleSystems Inc.
Open Telecom for Open Minds

STINGA MOBILE Application Areas and Overview

IMPROVED BUSINESS WITH LOW COST SOLUTIONS

- Helps you to satisfy your customers by improving Quality of Services in your network
- Helps you to get the most out of your existing investments in your network
- Generate reports for your telecommunication authorities
- Get your development and test projects finished on schedule
- Helps you to reduce Time To Market (TTM)
- Resolve your network problems before your customers even notice
- No 1st or 2nd line support anymore, you have 3rd line support directly by world class specialists
- Tailor made solutions in just a few days
- Training available by highly experienced and skilled protocol and signalling specialists

NETWORK MANAGEMENT

- Know the capabilities of your network
- Easily generate reports for your executives
- Resolve network issues easily
- Tune up your network for better performance
- Quality of Service & Network Performance analysis: From CDRs (call detail records) generated by the protocol analyser, it is easy to generate different statistics reports presenting QoS and NP parameters.

FAULTFINDING & TROUBLESHOOTING

- Comprehensive protocol decoding of all user parts and protocol layers makes it possible to track and search for protocol irregularities. Recorded irregular messages may be regenerated with the protocol simulator. This is a very convenient way of reproducing errors in the network.

The PCMCIA and PCI cards are supporting both SS7, BICC, V5 and ISDN PRA software modules for protocol analysis and simulation.

KEY FEATURES

- **Mobile protocol analysis/monitoring**
- **SCCP CDR Builder**
- **PCMCIA and PCI based solutions**
- **Monitoring up to eight bi-directional E1/T1/J1 interfaces**
- **Top-down QoS and Networks Performance analysis**

OVERVIEW

Components

The cost-efficient STINGA MOBILE test instruments from Utel Systems comprises the following components:

- One or more hardware cards (PCMCIA or PCI) with E1/T1/J1 line interfaces
- One or more software modules: MOBILE Monitor for protocol analysis

Highly Portable

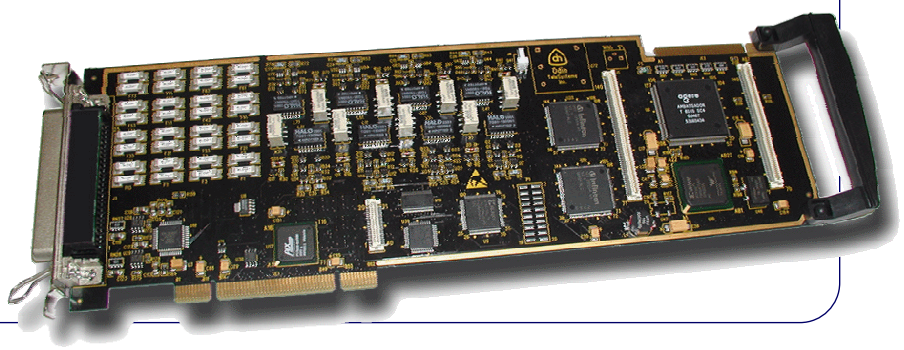
"All-in-one" concept: PCMCIA based instrument with many applications in one notebook. With these hardware and software components, highly portable protocol simulators and analysers, desktop protocol simulators and analysers, and rack-based monitoring probes are supported.

Cost-efficient Windows-based Test Instruments

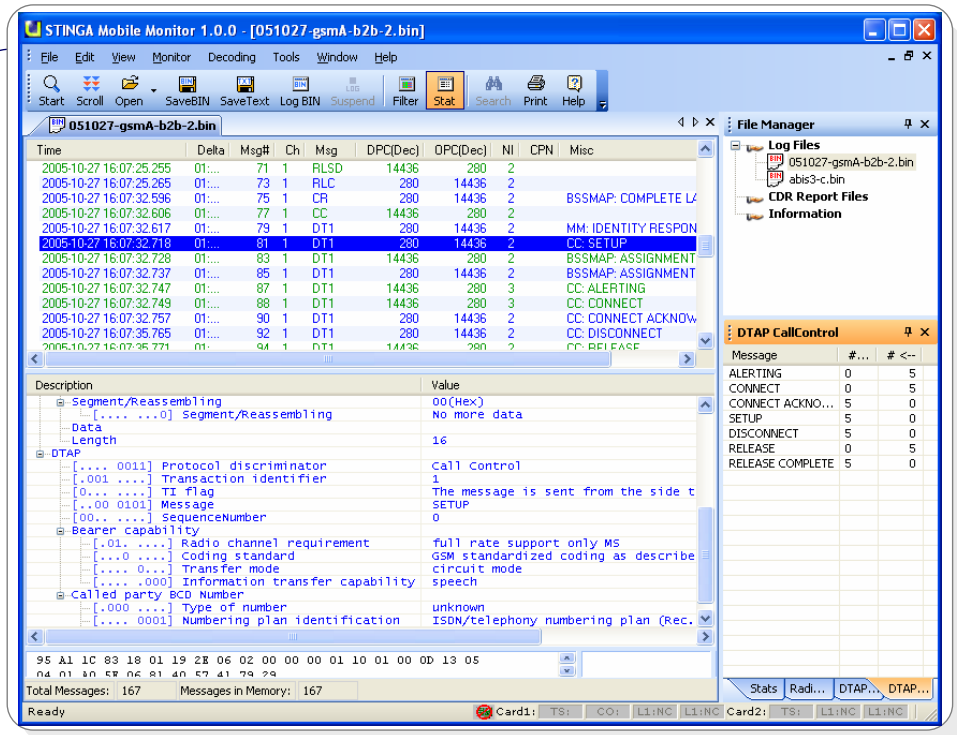
All software and hardware components are running on standard notebook and desktop PCs with Windows, providing cost efficient IT service, fast learning curve, easy and cheap access to replacement units.

Same User Interfaces for all Products Reduce Costs

All test instruments from Utel Systems are based on the same windows user interface framework. The user do not have to focus on how to use different applications, meaning full focus on different protocols and network technologies in use. Same decoding format for monitor and simulator results in time efficient testing.



STINGA MOBILE Protocol monitoring & analysis



Easy to use Windows-based user interfaces. Integration with Microsoft Word, Microsoft Excel and Adobe Acrobat Reader is supported. Log files and CDR Report files are easily accessed from the Monitor Files pane. Real-time statistics are displayed in the different statistics panes.

MOBILE MONITOR - PROTOCOL ANALYSIS

Real-Time Monitoring

It is possible to monitor two E1/T1/J1 interfaces with one notebook, and up to eight E1/T1/J1 interfaces with the PCI based desktop/rack solutions. Up to five timeslots can be monitored simultaneously for each line interface. More E1/T1/J1 interfaces can be monitored with the notebook solution by using a 3rd-party E1/T1/J1 concentrator.

Real-Time Decoding

Comprehensive real-time decoding of MTP, SCCP, DTAP, BSSMAP, BTSM, MM, RR, CC is provided. Customer configured one-line decoding, detailed decoding and hex information are displayed. Physical link status is displayed with indicators in the status bar and layer 1 alarms are printed in the one-line decoding window.

Filter Mechanisms

Through a user friendly dialog a comprehensive user specified filter mechanism is available.

Search

It is possible to search for information in all captured messages, and it is also possible to specify which columns in One-Line Decoding to search.

Audio Monitoring

It is possible to listen to a specific user channel. With the PCMCIA solutions, the audio is played through the PC-speakers using the built-in sound card. With the PCI solutions, an on-board codec is used to play the audio in a connected head set.

Decode Single Message

With the Decode Single Message feature, it is possible to import protocol information on hex format to get it detailed decoded. This protocol information could be some messages captured by a 3rd-party analyser that you for example have received by e-mail.

Point Code Editor

A Point Code Editor is included to let the user add descriptions to point codes. Descriptions for a large amount of international point codes are included – descriptions for national point codes must be added by the user. Both hex and ITU formats are supported.

Call Trace View

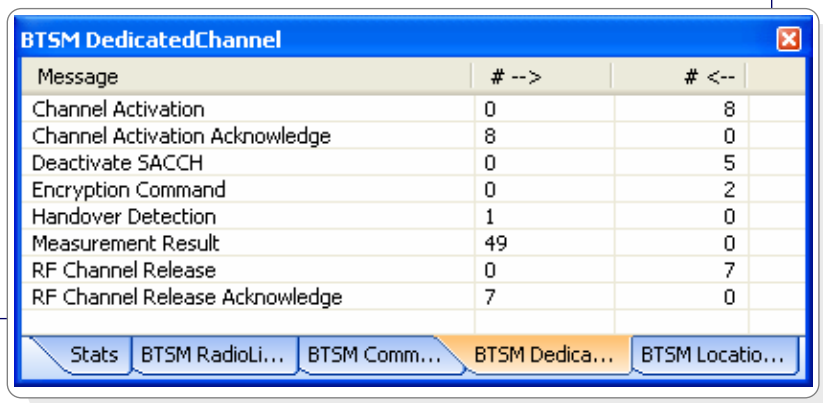
It is also possible to present captured messages in a Call Trace view to group messages related to the same connection. In this Call Trace view, CDRs (call detail records) are generated on the basis of the captured messages. These CDRs can be saved to file for later CDR Statistics Report generation, or exported to Microsoft Excel for further analysis.

Real-Time Statistics

Statistics on BTAP, BSMAP and BTSM messages are reported in real-time. The statistics counters are presented separately for each monitored direction. The statistics can be save to file later analysis.

Remote Control

The monitor application is constructed to be remotely controlled over a IP connection (like a dial-up connection). The graphical user interface is installed on a local PC, while the monitor "agent" is running on a remote PC connected to the tapping point through the hardware.



STINGA MOBILE Protocol analyser

TECHNICAL SPECIFICATIONS

Hardware & Software Requirements

- Software modules running on Windows Vista/ XP/2003 Server/2000
- PCMCIA cards (type II) with two dongles with built-in amplifiers and RJ45 connectors – one dongle for each E1/T1/J1 line interface.
- Half or full length PCI cards with up to eight E1/ T1/J1 interfaces. A special monitoring card with sixteen receivers (no transmitters) is also available - typically used in monitoring probes for monitoring up to eight bi-directional E1/T1/J1 interfaces.

Protocols Supported

- E1/T1/J1 interfaces
- E1/T1/J1 alarm signals and link status
- MTP (ITU, ANSI, Japan TTC, Chinese ITU)
- SCCP (ITU, ANSI, Japan TTC, Chinese ITU)
- GSM/EDGE and CDMA A-interface
- BSSAP
- BSSMAP
- DTAP
- MM
- RR
- CC
- GSM/EDGE Abis interface
- LAPD
- BTSM
- RR
- MM
- CC
- SMS
- SS
- Other protocols and national protocol variants are implemented on customer requests.

Cables

Cables included with the SS7 test instruments:

- One 1:1 twisted pair cable with RJ45 connectors for simulation (TE).
- One twisted pair crossover cable with RJ45 connectors for simulation (NT).
- One Y-cable with RJ45 connectors for monitoring.

Options

Optional products available for the SS7 test instruments:

- Impedance Converter: A small external adapter for 75 Ohm dual coax (BNC or Type 1.6/5.6) termination to 120 Ohm twisted pair RJ45 termination. No AC power or batteries required.
- T-Attenuator: A small external adapter for tapping into a twisted pair signalling link for non-intrusive monitoring. RJ45 connectors. No AC power or batteries required.
- Amplifier: A external switchable 0, 20 or 30 dB amplifier with both 75 Ohm coax (Type 1.6/5.6), 120 Ohm twisted pair (RJ45) and terminal block connectors, is available for compensating for possible attenuation on the cross coupling device (tapping point). High impedance mode is also supported. Battery eliminator is included.

Related Products

- STINGA BICC Monitor & Simulator
- STINGA IRI Analyser
- STINGA ISDN PRA Monitor & Simulator
- STINGA ISDN BA Monitor & Simulator
- STINGA MEGACO Monitor & Simulator
- STINGA NGN Monitor
- STINGA PNNI Monitor & Simulator
- STINGA SCTP Simulator
- STINGA SIP Simulator
- STINGA SS7 Monitor & Simulator
- STINGA V5 Monitor & Simulator
- E1/T1/J1 support for Wireshark (Ethereal)

Note: The **BICC** products includes all the functionality of the SS7 products, in addition to support for the BICC protocol. The SS7 test instruments can easily be upgraded to the BICC products.

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