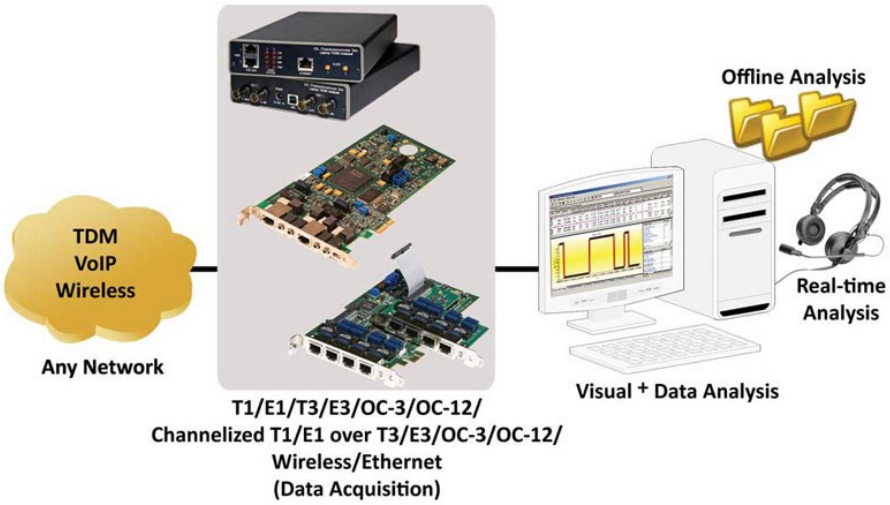
Communication Traffic Recorder and Protocol Analyzer

(TDM, Wireless, and IP)



Overview

GL's **Communication Traffic Recorder and Protocol Analyzer** test suite includes advanced testing, analysis, and emulation capabilities of almost all standard protocols over T1/E1, T3/E3, and VoIP. The test suite comprises of the following hardware to interfaces with Wireless, and TDM networks of data rates 34 Mbps (E3), 2.048 Mbps (E1), and 1.544 Mbps (T1) –

- Dual PCI T1/E1 Analyzers
- USB based T3/E3 Analyzer

The test suite interfaces with VoIP network using the following software –

- PacketScan™ - a real-time packet analyzer
- SIGTRAN Analyzer

Main Features

- Handles advanced protocol decoding and capturing
- Handles traffic classification, monitoring, and recording
- Unlimited and continuous capability of recording the traffic to files for future analysis
- Supports data rates of 34 Mbps (E3) and 2.048 Mbps (E1) and 1.544 Mbps (T1)
- Based on a uniform architecture with identical features and functions makes the test suite flexible to perform any basic to advanced testing
- Advanced search and filtering abilities to drill through the capture for the required frames
- Filtering of the frames can be performed during real-time capture as well as on the pre-captured files
- Numerous statistics can be obtained to study the performance and trend in the network
- Graphically analyze captured traffic using wave graph, spectral display, and/or using other shareware such as Goldwave

Applications

- Can be used as independent standalone units as "probes" integrated in a network surveillance systems
- Triggering, collecting and filtering for unique subscriber information and relaying such information to a back end processor;
- Collecting Call Detail Records (CDR) information for billing

For more information, refer to Communication Traffic Recorder and Protocol Analyzer webpage.

GL Communications Inc.

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Features and Specifications of USB Based T1/E1 Analyzer

Basic Features

Monitor T1 or E1 Status

Monitor T1/E1 Alarms, Errors, and Level measurement of signal for all time slots of E1 and T1

Rx Signal Monitoring

Byte Values and Binary Byte Display for all time slots

Monitor signaling bits

Power Level Display for all time slots

DC Offset Display for all time slots

Frequency Display for all time slots

Multi-frame Byte Display

Real Time Multi-frame Monitoring

Real Time Bitmap Monitoring

Time Slot Byte Display

Real-time Oscilloscope Display of DS0

Real-time Power Spectral Display of DS0

Audio Monitoring

Active Voice Level Monitoring

Intrusive Testing Applications

Full / Fractional T1 or E1 BERT with Drop and Insert

Enhanced Multi Channel Bit Error Rate Tester Transmit Tone

Transmit Gaussian Noise

User-defined Multi-frame

Signaling Bits

Precision Delay Measurement

Tx_Rx Loopback

Error Insertion

Four Wire VF Interface with Drop and Insert

Features and Specifications of USB Based T1/E1 Analyzer *(Contd.)*

Special Features

API Development Software Toolkit (Programmers Guide)

Real-Time T1 or E1 Multi-Channel Audio Driver

Multi-Channel BERT Software Transmit / Receive File Utility

Record / Playback File

DTMF/MF/MF-R2 Detector and Generator

Real-time Strip Chart

T1 or E1 Call Capture/Analysis

Signaling Bits Recorder

Multiplex / De-multiplex Software

Basic Client/Server Scripted Control Software

w/ Traffic Classifier

w/ High Throughput MC MLPPP Tx/Rx Test

TDM Echo Canceller Test Tools

Echo Path Delay / Loss Simulation Software

Echo Path Delay / Loss Measurement Software

Digital Echo Canceller

Audio Processing Utility

Voice, Fax and Modem Analysis over TDM

Call Management Utility

GLInsight™ Fax Analysis TDM

GLInsight™ Modem Analysis TDM

Voice Band Analyzer

GoldWave (Waveform Viewer)

TDM Protocol Testers

Real-time ISDN Protocol Analyzer

Real-time ISDN Protocol Emulator

Real-time SS7 Protocol Analyzer

Real-time HDLC Decode/Store/Impair Software

Real-time GR303 Protocol Analyzer

E1 Real-time V5.x Protocol Analyzer

E1 Real-time Maintenance Data Link Analyzer

Channel Associated Signaling Simulator

Features and Specifications of USB Based T1/E1 Analyzer *(Contd.)*

Special Features

Packet and Frame Protocol Testers

Real-time PPP and ML-PPP Analyzer

Real-Time Frame Relay Protocol Analyzer

Real-Time CDMA2000 Protocol Analyzer

Real-Time UMTS Protocol

Features and Specifications of USB Based Portable T3/E3 Analyzer

Basic Features

Monitor T3 or E3 Status

Monitor and Log T3/E3 Alarms, Errors, FEAC Messages

Alarm Generation and Error Injection

Tx Rx Memory Loopback

Monitor Received Data

Transmit and Receive Configurations

Multiplex and De-multiplex T1 or E1 signals

Bit Error Rate Test - BERT (Full Frame and Unframed)

Special Features

T3 FEAC Messaging

Playback (Transmit from File) / Record (Capture to File) applications

Features and Specifications of VoIP Analyzer - PacketScan™, SIGTRAN Analyzer

PacketScan™:

- Supports SIP (SIP Session Initiation Protocol -2543 and -3261), Megaco3525, Megaco3015, MGCP, H323/H225, and RTP
- Supports decoding of MAC, IP, SIP, UDP, TCP, RTP, RTCP, T.38 (Fax over IP), and SMPP (Short Message Peer to Peer Protocol)
- Standard codec supported - G.711, G.726, G.729AB, GSM, iLBC, AMR, EVRC,G.722.2, iSAC
- Listen / record VoIP calls in real-time
- In-depth RTP Traffic Analysis with host of graphs and statistical information

SIGTRAN Analyzer:

- Supports SCTP, M2UA, M3UA, M2PA, SUA, IUA, SIGTRAN protocols
- Supports decoding of MTP2, MTP2, M2PA, MTP3, MTP3, MAP, INAP, CAMEL, and more.

Buyer's Guide

Item No	Product Description
CPT001	Communication Traffic Recorder and Protocol Analyzer Suite

Item No	Related Hardware
TE3001, TT3001/ EE3001	Dual T3 E3 / T1 E1 Hardware USB Base Unit w/ Basic T3 or E3 Software
PTE001	tProbe™ Dual T1 E1 Laptop Analyzer with Basic Analyzer Software
FTE001	QuadXpress T1E1 Main Board (Quad Port– requires additional licenses)
ETE001	OctalXpress T1E1 Main Board plus Daughter Board (Octal Port– requires additional licenses)
XTE001	Dual T1 E1 Express (PCIe) Boards (requires additional licenses)

Item No	Hardware Platforms
SA005d	Notebook PC
SA005i	Ruggedized Lunchbox PC
DP001	Portable Pentium Lunchbox PC

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