

Capture of Voice / Fax / Modem on 2-Wire Analog Interface

Non-intrusive, Bi-directional Traffic Capture

Capture Traffic as a Single PCM File

Supports FXO & VF Inputs

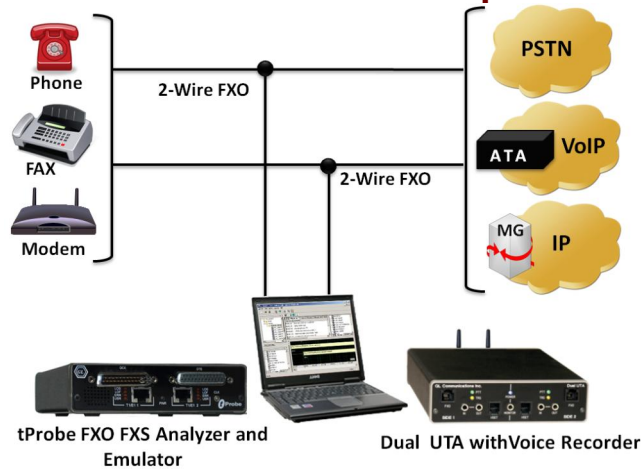
Capture and Emulate 2-Wire Signaling using tProbe™ FXO

Auto Trigger Threshold (-dbm) Option

All Measurements Associated with 2-wire Networks

GL Insight™ for Modem / Fax Data Analysis

2 - Wire Voice / Data Capture



Overview

GL provides two different solutions to capture signals on 2 Wire analog lines (FXO ports):

- Using Voice Recorder with Dual UTA
- Using tProbe™ FXO

GL's **Voice Recorder** is used with [Dual Universal Telephony Adapter \(Dual UTA\)](#) hardware to non-intrusively capture the voice, fax, or modem traffic over a 2-wire Analog interface.

The **Dual UTA** is a comprehensive hardware device designed to interface two completely separate networks to test the voice quality. The Dual UTA can be directed to automatically send and record sample voice files between nodes of a telephony network, which can then be submitted to software application for analysis.

GL's new [tProbe™](#) is an enhanced USB based **T1 E1 VF FXO FXS Datacom Analyzer / Emulator**. The FXO port on the **tProbe™** permit non-intrusive capture and analysis of voiceband signal from a two-wire telephone line. This feature allows you to capture and analyze data from a two-wire telephone line, as well as to generate and transmit analog data onto that two-wire line. FXO FXS testing can also be performed using [MAPS™ FXO FXS Emulator](#) application. MAPS™ provides a facility to place call/answer incoming call on both FXO and FXS ports, and automate the entire testing process using scripts.

For more details, please visit our web page <http://www.gl.com/2-wire-voice-data-capture.html> and <http://www.gl.com/analog-fxs-fxo-testing-using-tprobe-client-server.html>

Main Features

- A USB plug 'n' play recorder that does not tie up the sound card on the PC
- Enables recording of the following transmissions:
 - Data (Modem)
 - Fax
 - Mobile Fax
 - T.38 Fax
 - Passive Voice
 - X, Y, Z Modem and others
- Non-intrusive, bi-directional traffic capture into a single PCM file
- Supports all types of measurements associated with a 2-wire analog call
- Use with GL Insight™ for modem / fax data analysis, or Adobe Audition for voice analysis
- Use with [Voice-band Analyzer \(VBA\)](#) application to perform voice band analysis

Main Features

- Provides bottom-up deep diagnosis of the call
- Provide info from data pump layer up to tiff picture
- Helps solve interoperability issues
- Diagnoses physical layer problems
- Diagnoses network layer problems



GL Communications Inc.

818 West Diamond Avenue - Third Floor, Gaithersburg, MD 20878, U.S.A

(Web) <http://www.gl.com/> - (V) +1-301-670-4784 (F) +1-301-670-9187 - (E-Mail) gl-info@gl.com

Voice, Modem and Fax Data Capture with Dual UTA

Voice Recorder software allows to non-intrusively capture the signals on FXO or VF ports on DUAL UTA connected to 2-wire lines.

The Dual UTA unit supports 2 FXO ports and can be connected directly to the 2-wire lines. One can non-intrusively 'tap' into the analog 2-wire line via the RJ-11 interface and capture the bi-directional voice/data. The recorded voice/data is automatically saved into a single PCM file. The recording can be automated using auto trigger options, or manually controlled. For more information, please visit [Automated FXO testing using Dual UTA](#).

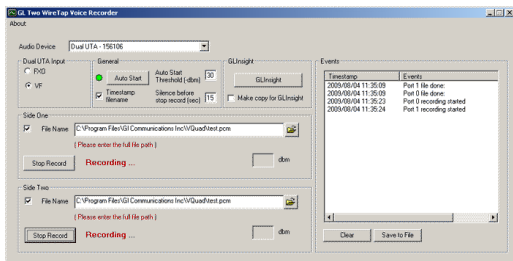


Figure: Two Wire Tap Voice Recorder

Voice, Modem and Fax Data Capture with tProbe™

tProbe™ FXO FXS permits non-intrusive capture and analysis of voiceband signal from a two-wire FXO / FXS lines. With the tProbe™ FXO call scripts, one can perform the basic operations during the call setup such as the Off-hook/On-hook, check dial tone, transmit / receive DTMF digits, monitor ring signal, and record traffic to pcm file. The signals so monitored over the FXO ports can be captured as A-Law, μ -Law, 16-bit PCM (Intel), and 16-bit PCM (Motorola) file formats. For more information, please visit Analog [FXO FXS Testing using tProbe](#) webpage. With additional FAX simulator license (XXFT0), tProbe™ FXO port can be used to send/receive FAX over analog lines as shown in the figure below. For more details refer to [FAX Simulation over PSTN, T1 or E1](#).

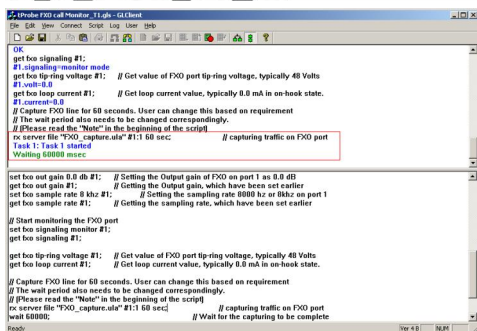
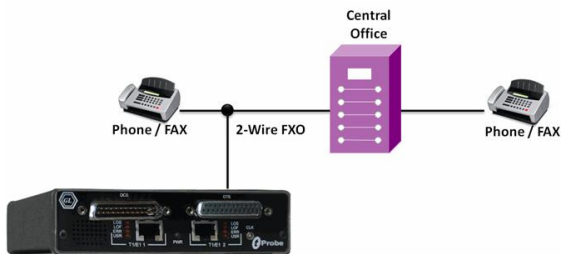


Figure: 2-Wire Capture Using tProbe™

Modem and Fax Data Analysis with GLInsight™

[GLInsight™](#) verifies fax and modem calls by analyzing the recorded PSTN files (or IP stream). The Voice Recorder helps record these PSTN calls to the required location. The analyzer can then report with a detailed log file for easy event tracking.

Supported Protocols for Fax over PSTN

- V.34HD, V.17, V.33, V.29, V.27, V.21, T.30, T4 / T6

Supported Protocols for Modem over PSTN

- V.92 (Quick Connect and Modem-on-Hold supported. PCM-upstream not supported)

- V.90, V.34, V.32bis / V.32

- V.22bis / V.22, V.21, V.23

- Bell 103 / Bell 212

Supported Start-up Protocols

- V.8
- V.8bis
- V.8 short

Fax / Modem Capture Analysis using GLInsight™

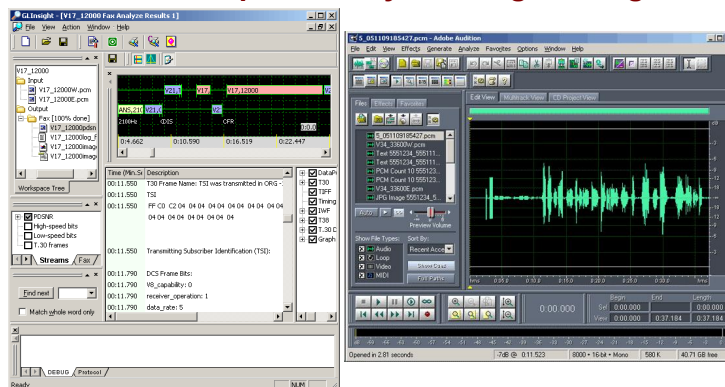


Figure: Adobe Audition and Fax/Modem Capture Analysis using GLInsight™

Buyers Guide

- [VQT035](#) – 2-Wire Voice/Data Capture
- [VQT241](#) – Dual Universal Telephony Adapter (Dual UTA)
- [PTE001](#) – w/ 2Wire FXO and FXS Optional Board (requires xx610, xx620)
- [XX610](#) – File based Record/Playback (Client side) and ClientDataTxRx (Server side)
- [XX620](#) – Transmit/Detect digits

Related Software

- [FXT001, FXT002](#) – GLInsight™ for Fax Analysis – TDM, IP
- [MDT001, MDT002](#) – GLInsight™ for Modem Analysis–TDM, IP
- [VBA032](#) – Near Real-time Voice-band Analyzer
- [SA026](#) – Adobe Audition Software
- [SA048](#) – Goldwave Software



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