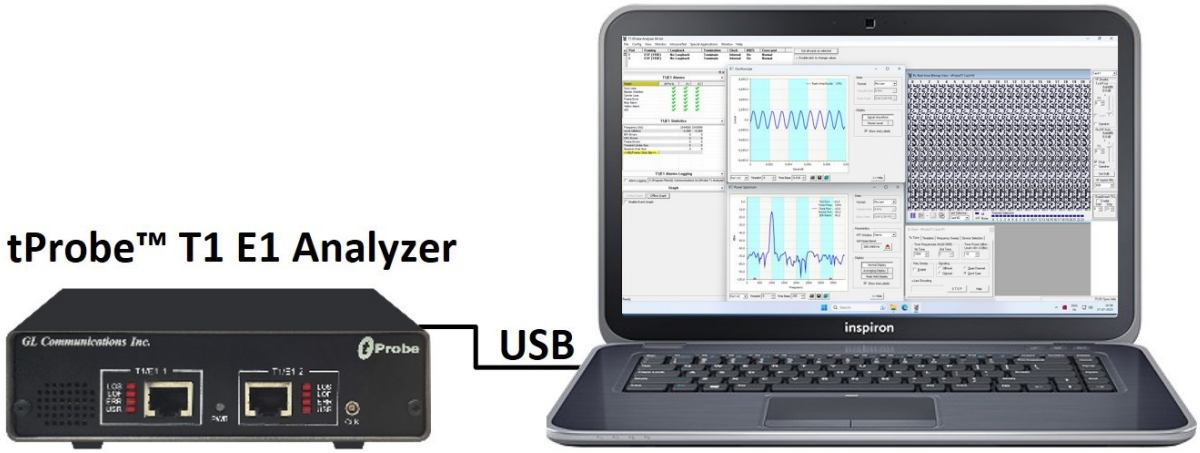
Dual VF Tx/Rx with tProbe™ Analyzer



Overview

The Dual VF Tx/Rx (Only applicable for GL's tProbe™ T1 E1 analyzer, earlier called as Simplified Audio Client) application is designed exclusively to perform non-intrusive monitoring, and recording of audio (Tones, Digits, and Voice) signals, and intrusive audio testing easily.

Dual VF Tx/Rx provides an alternate and simple GUI similar to the basic applications in T1 E1 Analyzer software to perform analog Tx/Rx functions. In addition, the application does not require any knowledge of timeslots. It permits greater visual and audible display of the VF signals e.g. one can see, hear, detect, and decode both the input and output signals – simultaneously.

Now, Dual VF Tx/Rx is available as a part of T1 E1 analyzer basic applications.

SS1/SS4 Analyzer and SS1/SS4 Dialer applications also have been enhanced to operate in conjunction with the **Dual VF Tx Rx** and its modules.

For more information on **Dual VF Tx / Rx**, please visit Dual VF Tx Rx - Analog with tProbe™ Analyzer webpage.

Main Features

Analog

- Supports two independent VF I/O
- TX and RX simultaneously
- Full tone/digit generation/detection
- File Transmission and Recording
- Multiple cards supported per system – VF Tx/Rx and VF1/ VF2
- SS1/SS4 & DTMF Goldwave Digit record/playback capability
- SS1/SS4 Emulator and Analyzer capture/record/playback capabilities

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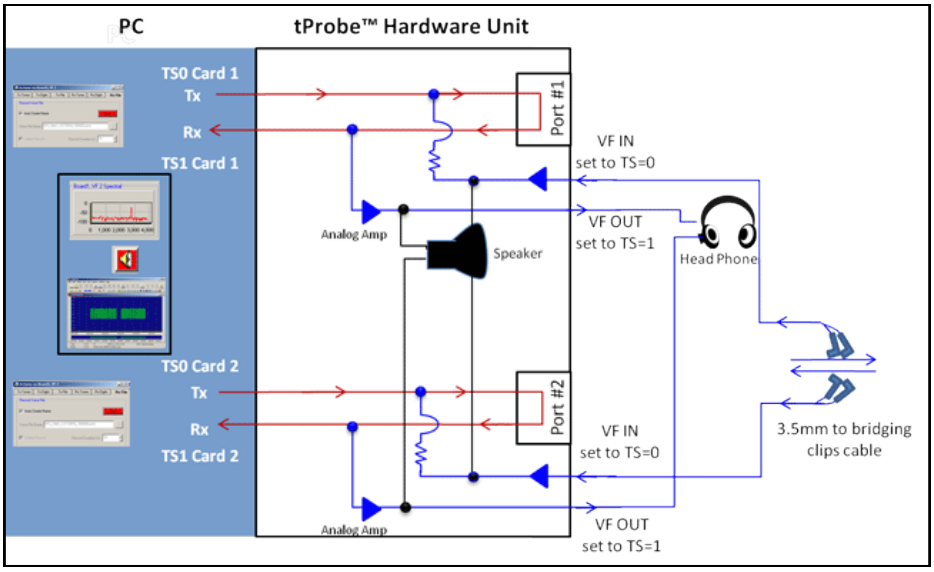
Working Principle

Dual VF Tx Rx supports Analog operational mode featuring two VF interfaces per tProbe T1 E1 unit, with each VF interface providing independent Tx/Rx functionality.

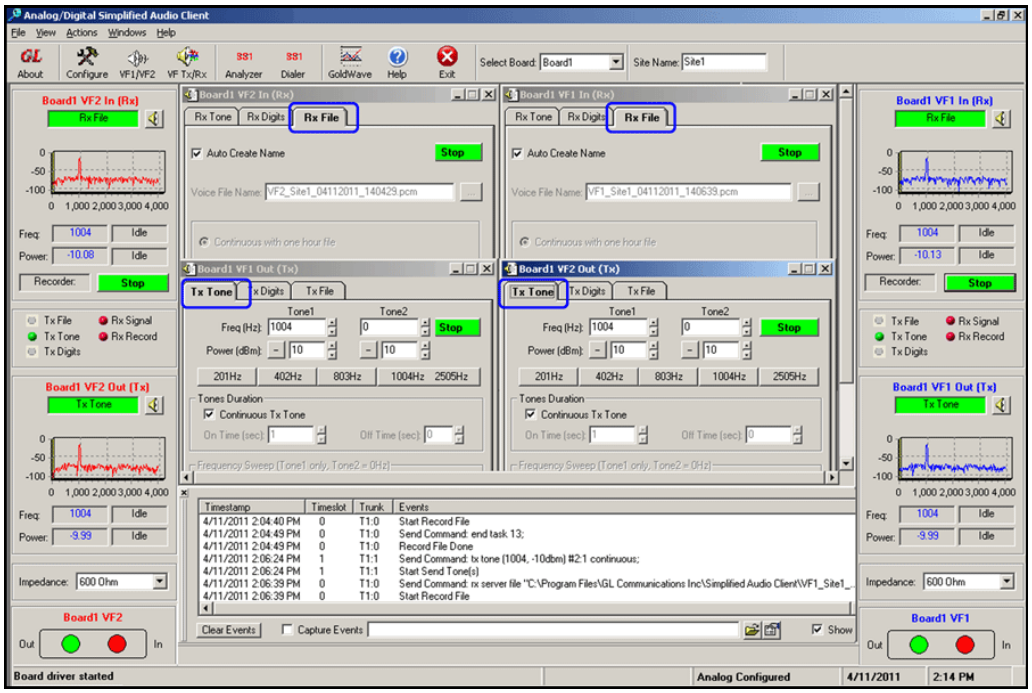
- Mode 1: VF1 (Tx/Rx) and VF2 (Tx/Rx)
- Mode 2: VF Tx and VF Rx

The VF Out ports can be configured to drop any timeslot from the incoming T1 E1 multiplexed signal. The VF In ports can be configured to insert the analog signal into an outgoing T1 E1 signal. This capability is readily available from the main GUI VF dialog bar. VF monitor and record functions can be performed simultaneously using appropriate modes.

The application supports spectral displays, which can be observed for both Tx/Rx directions. Analog signal can also be listened using the inbuilt speaker inside the tProbe™ unit or using stereo headphones if the environment is too noisy.



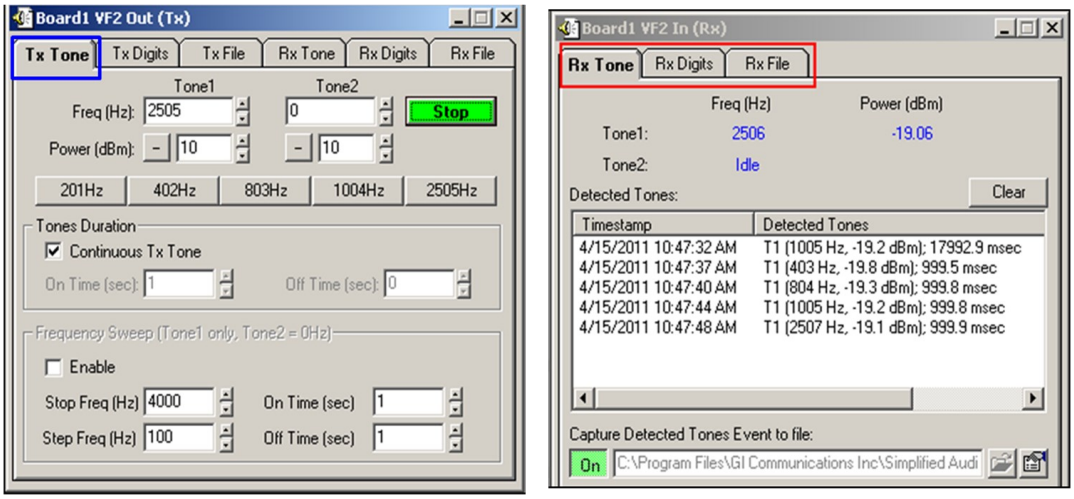
VF In and VF Out Configuration



Recording Tone into a PCM File

VF Tx and Rx Actions

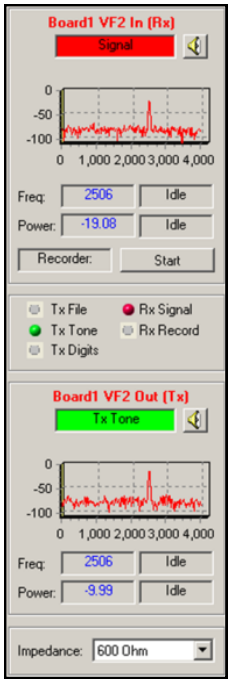
- Supports independent Tx/Rx between VF1 (Tx/Rx) and VF2 (Tx/Rx) simultaneously. The transmit actions on one VF port will be received on another VF port. The sending and receiving traffic functions such as Tones, Digits, and Files are possible. In VF Tx /Rx operational mode, TX/Rx functions are supported on a single VF port (either VF1 or VF2).
- Tx/Rx Tones option is used to transmit/detect user-defined single/ dual Frequency tones on VF ports
- Tx/Rx Digits option used to transmit/detect DTMF/MF digits with defined On/Off time (ms) and Power (dBm)
- Send/Record Voice File option used to send GL Propriety voice files of type PCM on VF ports.



Transmitting and Receiving Tone through VF2 Port

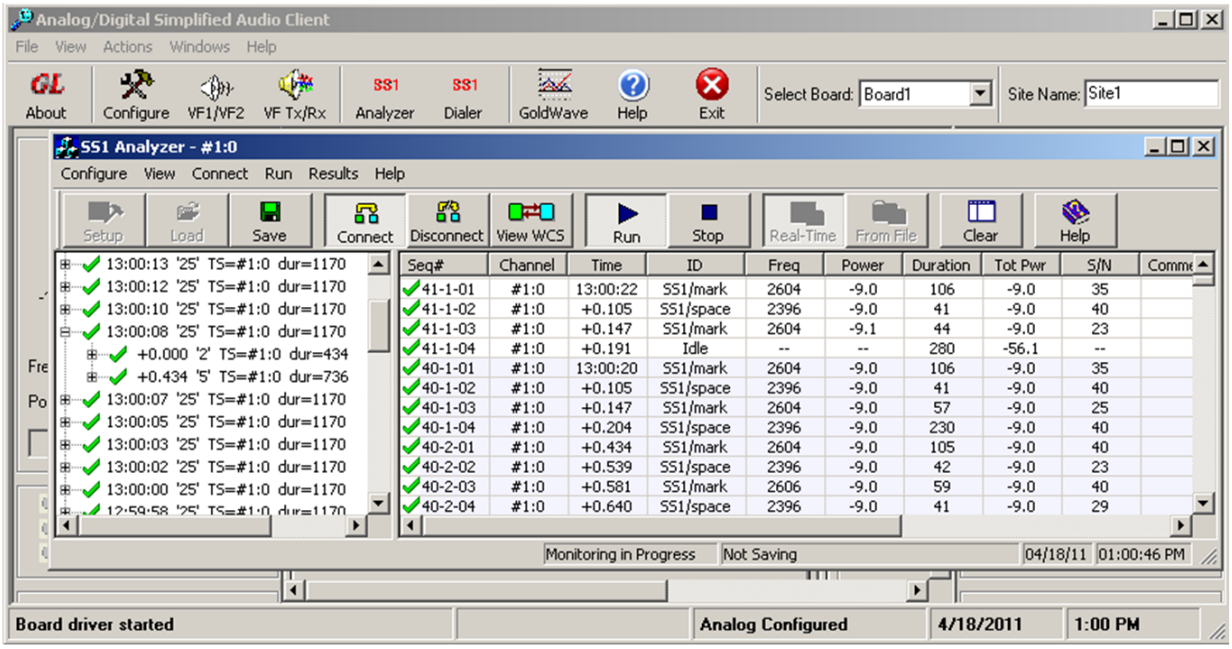
VF Tx / Rx Status and Spectral Display

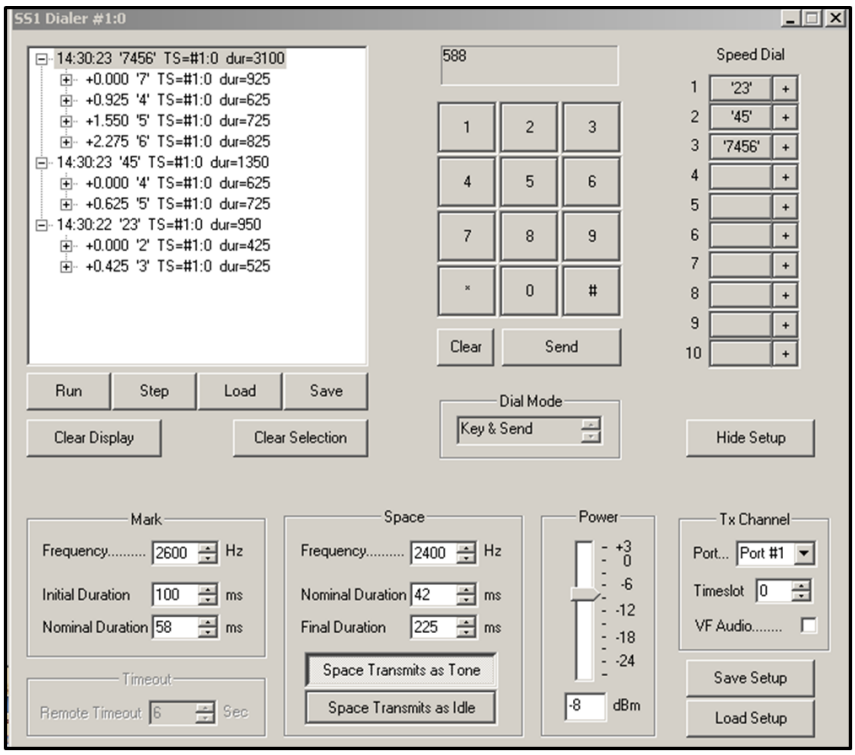
- Tx/ Rx status display for the tone, digits, voice transmitted/received on any particular VF port.
- Frequency, Power count status of the VF In and Out are displayed
- Data transmitted or received on a specified VF port displayed graphically (spectral Power (dBm) Vs Frequency (Hz))
- Turn On/Off Sending/Receiving Speakers provided for Tx/Rx ports
- Audio In and Out ports are supported with multiple impedance options



SS1/SS4 Emulator and Analyzer

- Real-time and File-based analysis.
- Generate and introduce SS1/SS4 Dial Codes on Transmit Channels using SS1/SS4 Dialer.
- Ability to capture either TDM or audio signals.
- Evaluate sequence of SS1/SS4 tones, including 2-digit or 3-digit dial codes.
- Operate the SS1/SS4 Analyzer either remotely from the data acquisition site, or as on the same PC that is capturing the data.
- Examine a faulty dial code at length with Review Dial Code and Spectral Graph features, even as a run is in progress.

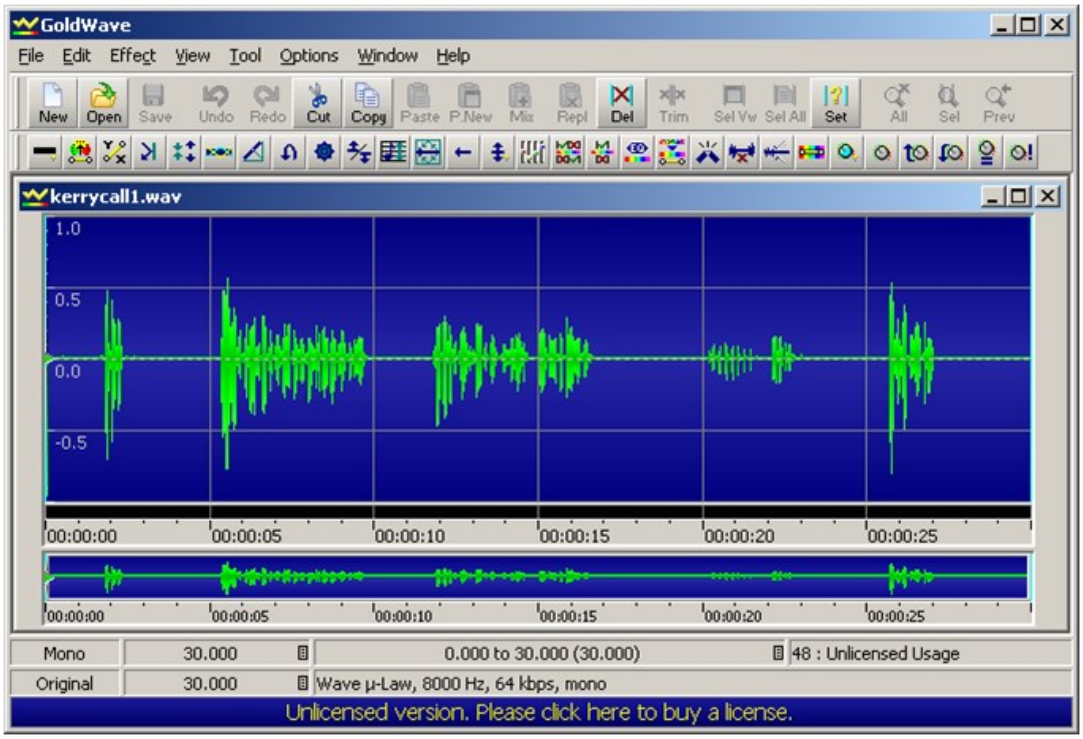




Introducing SS1/SS4 Dial Codes on Tx Channels using SS1/SS4 Dialer

Goldwave Capabilities

- View and analyze mono and stereo (east and west) audio files
- Supporting file formats -.pcm, A-Law, Mu-Law, *.wav, and many others



Analysis of Audio Files through GoldWave

Buyer's Guide

Item No	Product Description
XX605	Dual VF Tx Rx (Only applicable for GL's tProbe™ T1 E1 analyzer), previously called Simplified Audio Client. Available with Basic Software.
XX626	SS1/SS4 Dialer and Signaling Analyzer (Optional)

Item No	Related Software
XX022	DTMF/MF Detector & Generator Software
SA048	Goldwave Software
XX050	Signaling Bits Recorder Software
XX051	Synchronous Trunk Record Playback
XX020	Record/Playback File Software
XX030	T1 or E1 Call Capture and Analysis Software
XX012	Pulse Shape and Jitter Measurement

Item No	Related Hardware
PTE001	tProbe™ Dual T1 E1 Laptop Analyzer (Require Basic Software)
FTE001	QuadXpress T1 E1 Main Board (Quad Port)
ETE001	OctalXpress T1 E1 Daughter boards (Octal Port)
XTE001	Dual Express (PCIe) T1 E1 Boards
TTE001	tScan16™ T1 E1 Boards

Note: PCs which include GL hardware/software require Intel or AMD processors for compliance.

For more information, please visit Dual VF Tx Rx - Analog with tProbe™ Analyzer webpage.

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