

Simulate Bank of Analog Telephones (up to 384)

CO, PBX, Gateway Testing using POTS Interface

Bulk Call Generation with Scripting

Real Time Fax and Modem Calls

DTMF/MF Generation/Detection

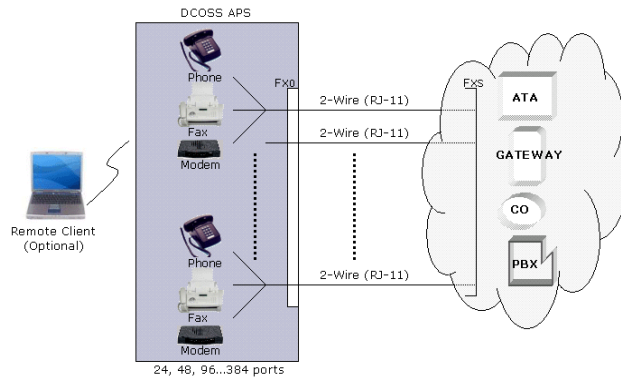
Real Time Telephone Status

Generate Call Records and Error Logs

Utilizes existing DCOSS, T1/E1 Analyzer, and VQuad™ with T1 interfaces

Remote Access via Client/Server

Analog Phone Simulator



Overview

The **Analog Phone Simulator** can work with any of the following hardware options –

- DCOSS T1 with CAS Loop Start protocol
- [MAPS™ CAS](#) with T1/E1 Analyzer (tProbe™ FXO FXS, USB T1/E1, Dual HD, Quad, or Octal board)
- [VQuad™](#) with DUAL UTA or T1/E1 option

The **Analog Phone Simulator** connects to the APSCB24/48 via a T1 (up to two T1's per APSCB24/48) and digital calls are generated to the APSCB24/48 using the **DCOSS**, **VQuad™**, or **MAPS™** GUI. Each digital call signifies analog off hook with DTMF dialed digits from the APSCB24/48. Both outgoing and incoming analog calls are supported. The connection to the APSCB24/48 includes a standard amphenol connector, which can be connected to a breakout box that supports up to 24 2-wire interfaces. Each of the analog ports (up to 48 per APSCB24/48, maximum of 384 ports per DCOSS system) serves as an independent analog telephone, which can be individually configured and activated for various telephony tasks.

All functionality currently associated with the **DCOSS**, **VQuad™**, or **MAPS™** including bulk calling, scripting, and remote client/server, may be used to control the APSCB24/48 2-wire analog ports. In addition to the functionality, all traffic supported by the DCOSS (Fax, Modem, Voice Files, DTMF/MF Digits, and Frequency Tones) is also fully supported by the APSCB24/48 devices.

The **DCOSS APS** (Analog Phone Simulator) converts a GL DCOSS into an analog phone simulator that simulates a bank of up to 384 analog telephones. Using a basic DCOSS with T1 trunks along with the APSCB24/48 external boxes, the DCOSS APS may be used to test a Central Office (CO), PBX, Gateway or other telecommunications equipment, which provide local loop interfaces. For more information on Analog Phone Simulator, refer to <http://www.gl.com/aps.html>

Main Features

- Connecting with POTS lines from PSTN or PBX, the DCOSS APS serves up to 384 regular analog telephones per DCOSS system.
- Supports analog services such as Call Forwarding, Call Waiting, and Conference Call.
- Supports Loop Current Detect for automatic on-hook when the far-end disconnects the call.
- Supports Caller ID functionality.
- Voice, FAX and Modem call generation and reception.
- DTMF/MF generation and detection.
- Single/Dual frequency tones generation and detection.
- Call monitoring and recording.
- Automatic bulk call generation/reception for load testing digital/analog trunks.
- Bulk call scripting and Call statistics.
- Save and load all parameters as user-defined configurations.
- Real-time status of each call.
- Call record generation and logging.
- Telephone number directory with unlimited capacity



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DCOSS APS

The DCOSS APS utilizes an existing DCOSS with T1 interfaces and the Loopstart protocol. Calls are generated using the DCOSS and sent, via the T1 interface, to the APSCB24/48. The APSCB24/48 converts the digital loopstart calls to analog loopstart and, thus, simulates standard analog telephones.

The DCOSS APS, using a T1 connection to the APSCB24/48, generates a series of up to 384 analog ports with standard FXO interfaces. Basically, anywhere a standard analog telephone can be connected, we can replace that analog phone with the DCOSS APS.

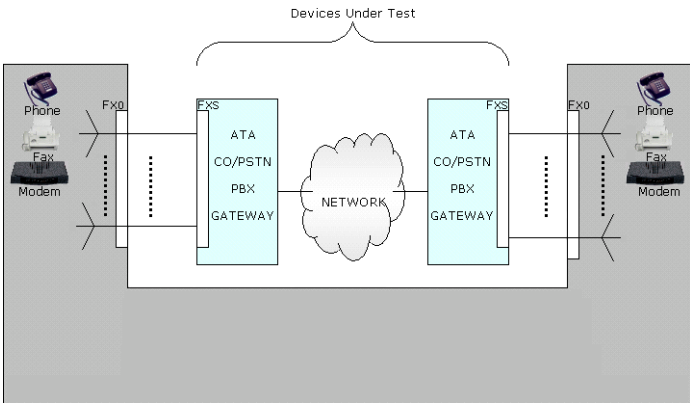


Figure: DCOSS with T1 Interfaces

Traffic Generation and Reception

The analog phone ports in DCOSS APS may be connected to any ATA, PSTN, PBX, or Gateway.

Since the DCOSS is controlling these APSCB24/48 devices, all functionality and traffic associated with the DCOSS is fully supported (bulk calling with scripting, remote client/server, fax, modem to name a few). While the DCOSS is controlling the APSCB24/48, the DCOSS can also generate SS7, PRI ISDN, or CAS calls with full automation and traffic simulation available. The DCOSS APS is a full function digital/analog CO in a single box.

The remote side of this call may be sent back to the DCOSS via digital T1 or E1 (CAS, PRI ISDN, SS7).

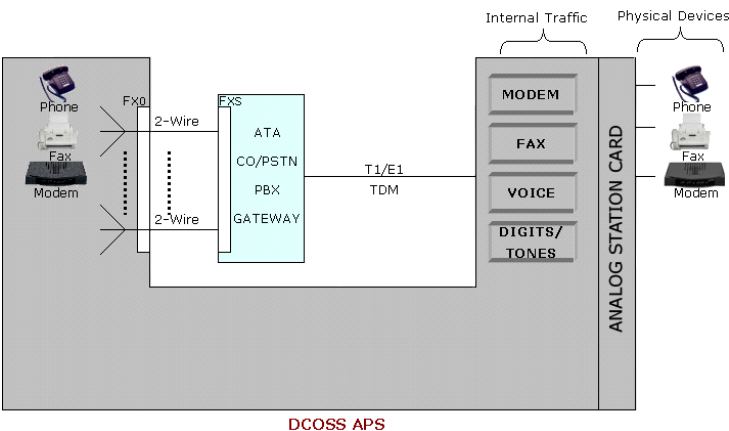


Figure: Generation and Reception of Traffic Through DCOSS

MAPS™ CAS

MAPS™ CAS Emulator is an advanced protocol simulator/tester for CAS (Channel Associated Signaling) signaling simulation in telephone networks where each channel or timeslot carries speech and signaling. **MAPS™ CAS Emulator** is a client-side application that works along with GL's T1/E1 Analyzer Cards and Windows Client/Server software. Supported CAS signaling types include Loopstart, Groundstart, Feature Group D (FGD), Winkstart, MFC-R2 and any user-defined. Also supports generation and detection of TDM traffic, including voice, fax, digits, and tones, over CAS signaling network.

A Typical MAPS™ CAS Test System is as shown below:

- Analog Hardware with FXO Cards
- A patch panel for RJ-11 connections to the outside world
- MAPS™ CAS communicating with Analog hardware via T1 hardware and software

For automation, MAPS™ can be integrated into TestShell from TSI with a TCL interface communicating over TCP/IP.

For more details, please visit our web page <http://www.gl.com/maps-cas-emulator.html>.

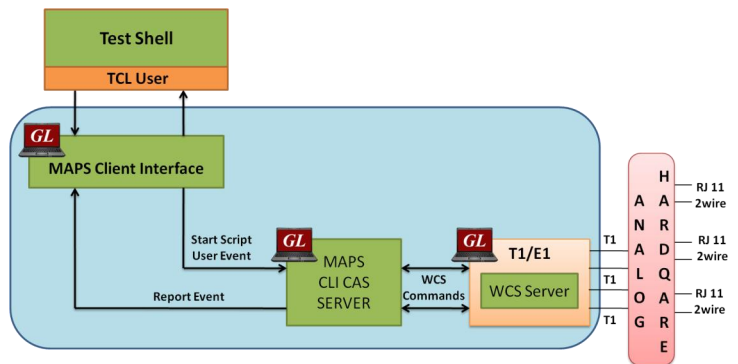


Figure: CAS Test System Modules



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VQuad™ with DUAL UTA or T1/E1 Option

GL's VQuad™ with Dual UTA provides the solution for testing analog 2-wire interfaces (PSTN, ATA, Media Gateway). The Dual UTA supports 2 Analog FXO interfaces (RJ11) and provides Off/On - Hook, DTMF Dialing, Flash Hook, Tone Detection (Dialtone, Ringback, Busy, Fast Busy, SIT) and CallerID. The Dual UTA Analog interface supports two-stage dialing, IVR testing, Voice Quality Testing, Delay Measurements, and Echo Measurements. This solution can be configured to automatically send/record a multitude of voice files and to perform VQT algorithms immediately after the voice file recording is complete.

VQuad™ software can also work with T1/E1 hardware and software to generate and receive up to 8 simultaneous CAS, PRI ISDN, or No Call Control (NOCC) calls on either T1 or E1 trunks. The T1/E1 option includes a script based CAS State Machine for creating any desired CAS protocol. Included with the PRI ISDN are all variants associated with ANSI and ETSI specifications.

For more details, please visit our web page <http://www.gl.com/vquad.html>.



Figure: VQuad™ with USB T1/E1 Analyzer

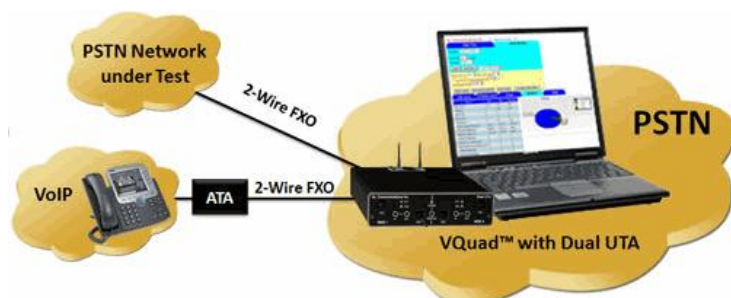


Figure: VQuad™ with Dual UTA

Buyer's guide

- [APSCB-24](#) – 24-Port Analog Phone Simulator (APS)
- [APSCB-48](#) – 48-Port Analog Phone Simulator (APS)
- [APSCB24i](#) – 24-Port Analog Phone Simulator for International P/S
- [APSCB48i](#) – 48-Port Analog Phone Simulator for International P/S
- [DR001](#) – DCOSS Software (R1 Protocol Included)
- [BRI001](#) – DCOSS BRI Phone Simulator
- [DT002/4](#) – Dual/Quad T1 Card
- [XX651](#) – MAPS™ CAS Protocol Emulator
- [XX649](#) – MAPS™ ISUP Emulator
- [XX648](#) – MAPS™ ISDN Emulator
- [VQT010](#) – VQuad™ Software (Stand Alone)
- [VQT015](#) – VQuad™ with T1 E1 Call Control
- [VQT241](#) - VQuad™ Dual UTA with Balanced, Analog FXO, PTT, and Phone Handset Interfaces
- [VQT022](#) - VQuad™ Fax Emulation (2 simultaneous ports)
- [VQT035](#) – FXO RJ11 Hardware Tap and Audio Capture Software
- [FXT001/FXT002](#) - GL Insight – Single Fax Analysis - TDM / IP
- [MDT001/MDT002](#) - GL Insight – Single Modem Analysis - TDM / IPx
- [VBA038](#) – FaxDD™

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