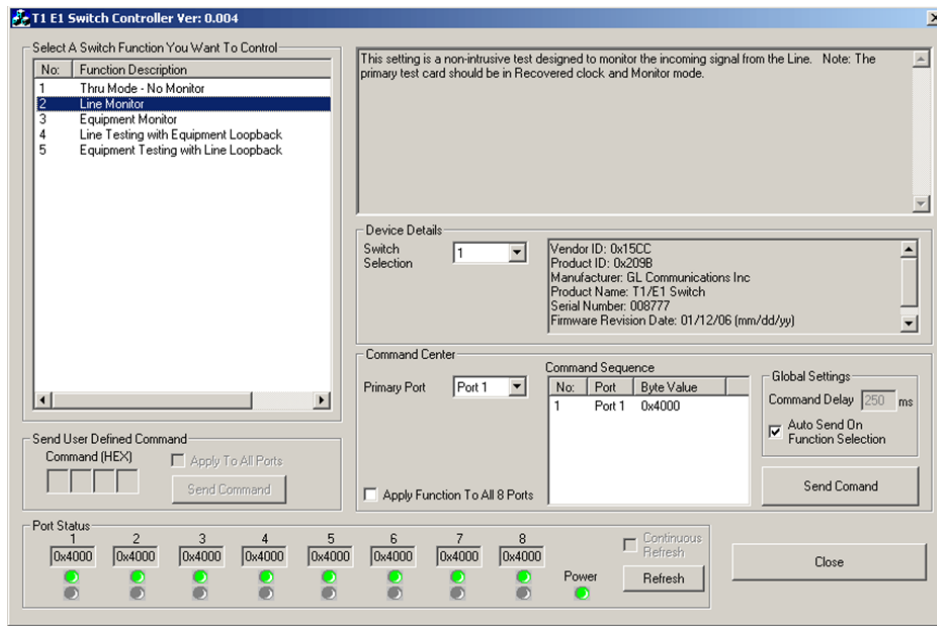# T1 E1 or J1 USB Controlled Switch

Overview

The T1 E1 J1 Switch can be used to control multiple T1 E1 lines to monitor, drop and insert, and perform intrusive and non-intrusive tests simultaneously. One can operate the switch in different modes by just changing relay settings remotely without requiring any changes to the physical connection. The T1 E1 or J1 switch device is designed to monitor and intrusively test up to eight individual T1 or E1 or J1 lines.

The switch can be remotely controlled via a USB connection. Both GUI as well as CLI control are available for controlling the switch in various modes for monitoring and diagnostic purposes.

For more information, refer to T1 E1 or J1 USB Controlled Switch webpage.

Main Features

- Provides modes for Single or Dual Direction Monitoring of T1 E1 or J1 lines
- Provides modes for Intrusive Testing in either direction of T1 E1 or J1 lines
- Controlled locally of remotely
- Fail-Safe mode in the event of a power failure. Returns to a Thru Mode immediately
- Up to 8 full duplex T1, E1, and J1 lines can be supported per unit

Software Included

- T1 E1 or J1 Switch Software GUI for local control from host PC

GL Communications Inc.

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

Working modes of T1 E1 or J1

The switch has three basic modes of operation.

Through mode

This mode allows the signal to pass through the device by disconnecting the test access. With the test access disconnected, the test card from the line will be set inactive, and therefore the signals will pass through the switch without any monitoring.
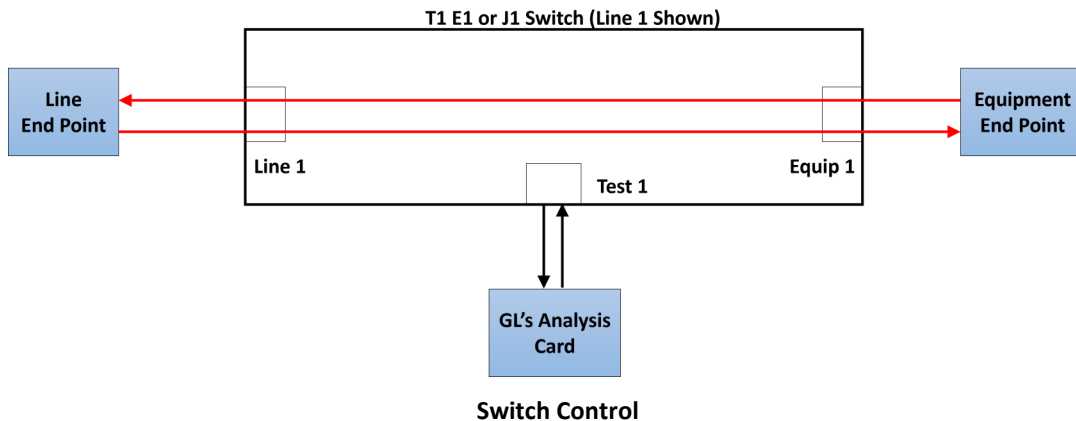

Through Mode
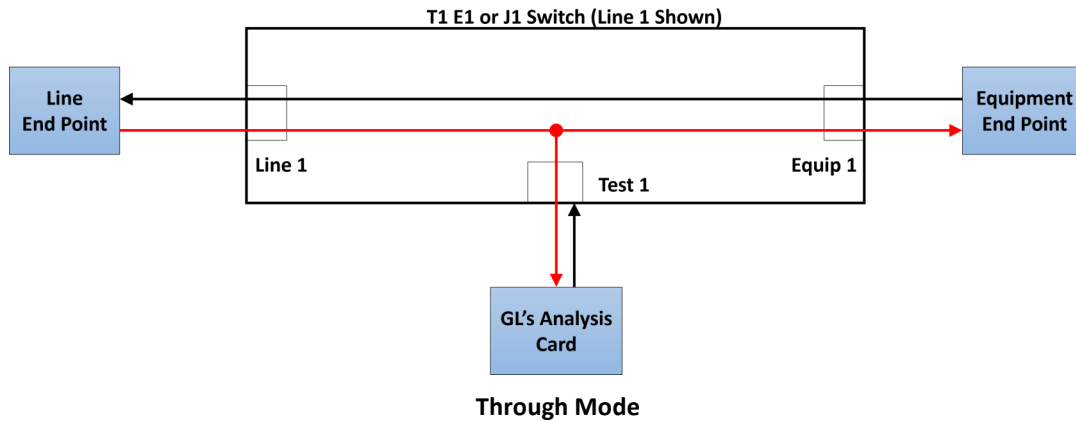
Intrusive mode

This allows test access on either the line or equipment telecommunication sides. The monitor and intrusive modes have additional detailed configurations, which allow greater control of the test access.
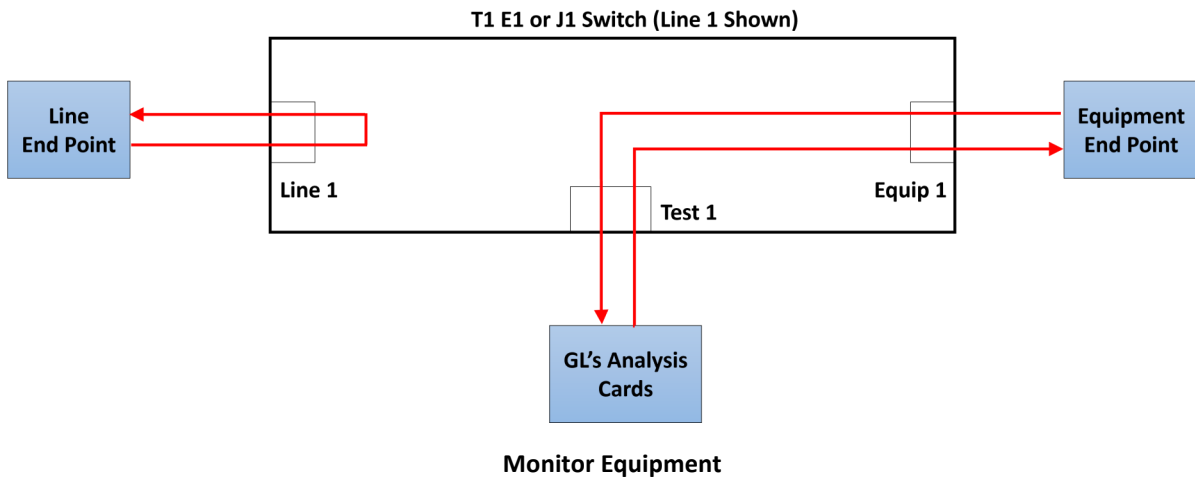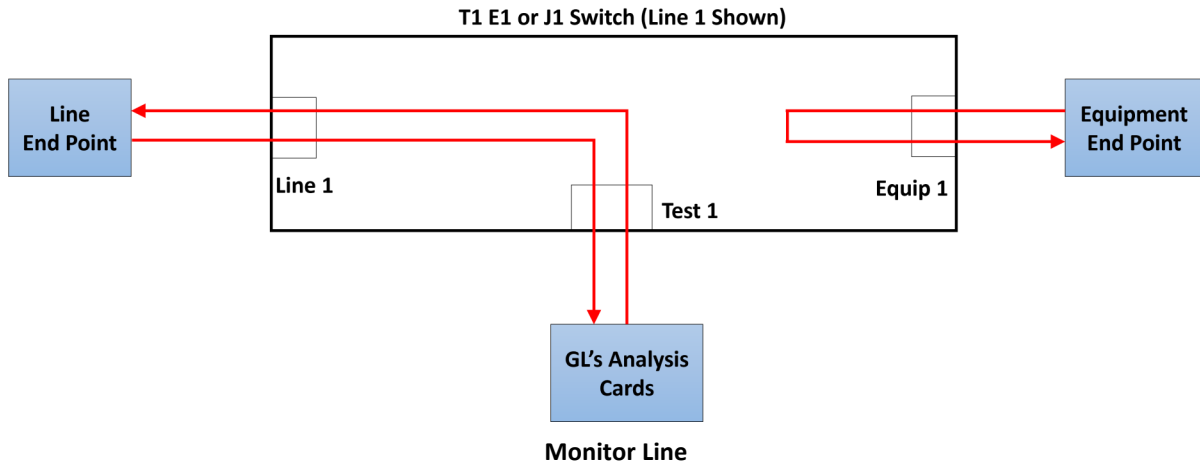
Software control of the switch

The switch can be controlled using either T1 E1 application or using GL's Windows client server (WCS). The T1 E1 switch software allows the user to control the switch without sending commands remotely.

Switch Control

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Working modes of T1 E1 or J1 (Contd.)

Monitor mode

In this mode user can monitor either line or equipment telecommunication sides.

T1 E1 or J1 Switch (Line 1 Shown)

Line End Point

Equipment End Point

Line 1

Equip 1

Test 1

GL's Analysis Cards

Monitor Line

T1 E1 or J1 Switch (Line 1 Shown)

Line End Point

Equipment End Point

Line 1

Equip 1

Test 1

GL's Analysis Cards

**Monitor Equipment**

GL Communications Inc.

Other Detailed Configurations

The monitor and intrusive modes have additional detailed configurations, which allow greater control of the test access.
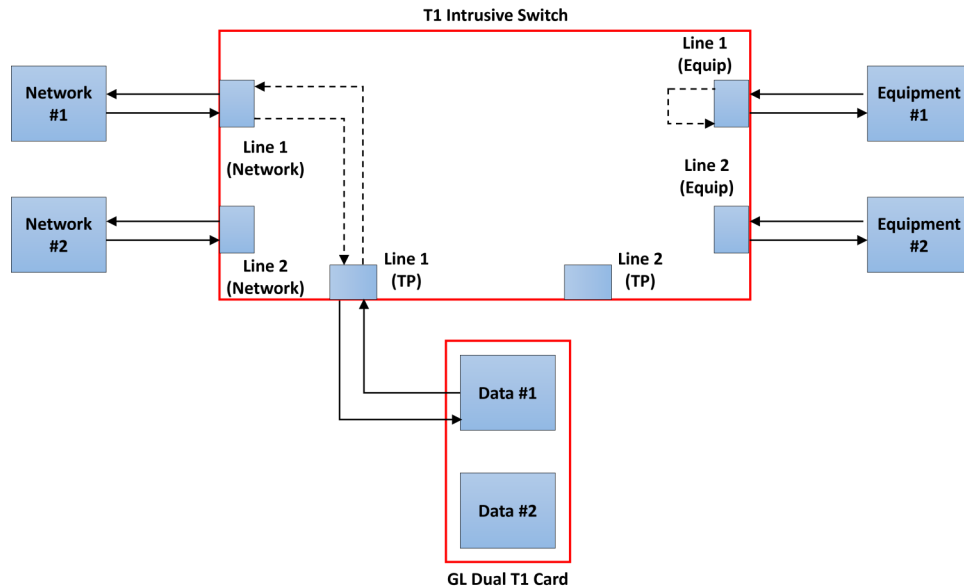
Line Testing with Keep Alive (Shared)

This allows to test intrusively in the direction of Line. The secondary test cards provides Keep Alive signals indicating the line is active.
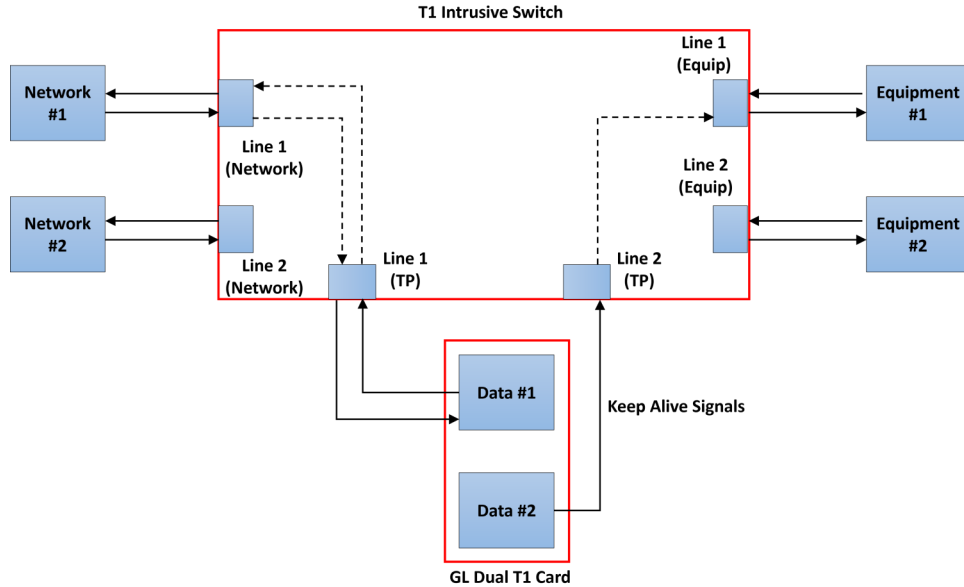
Line Testing with Keep Alive (Shared)

Line Testing with Equipment Loopback

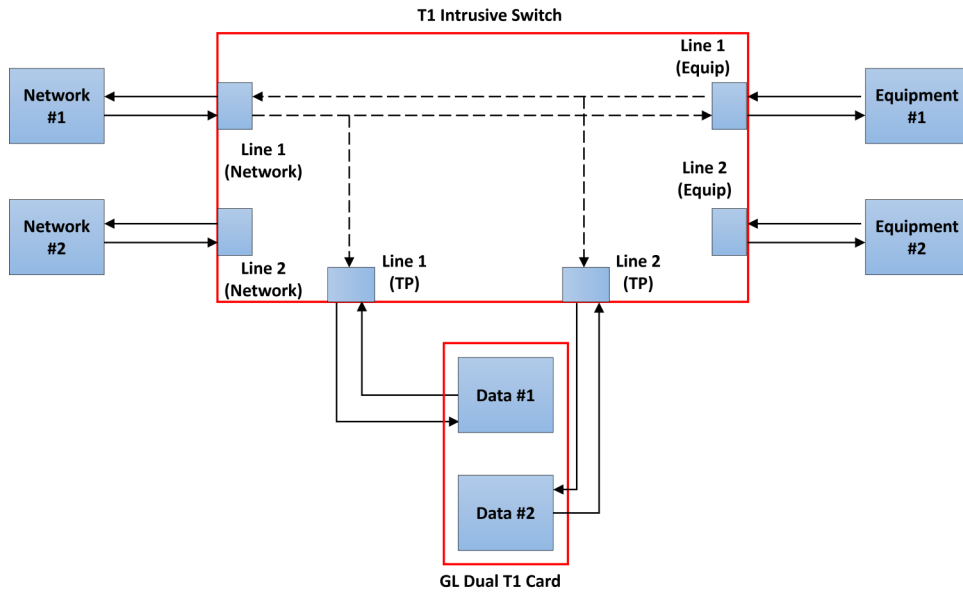This allows to test intrusively in the direction of Line. The Equipment side is looped back within the switch.

Testing Line with Equipment Loopback

Other Detailed Configurations (Contd.)
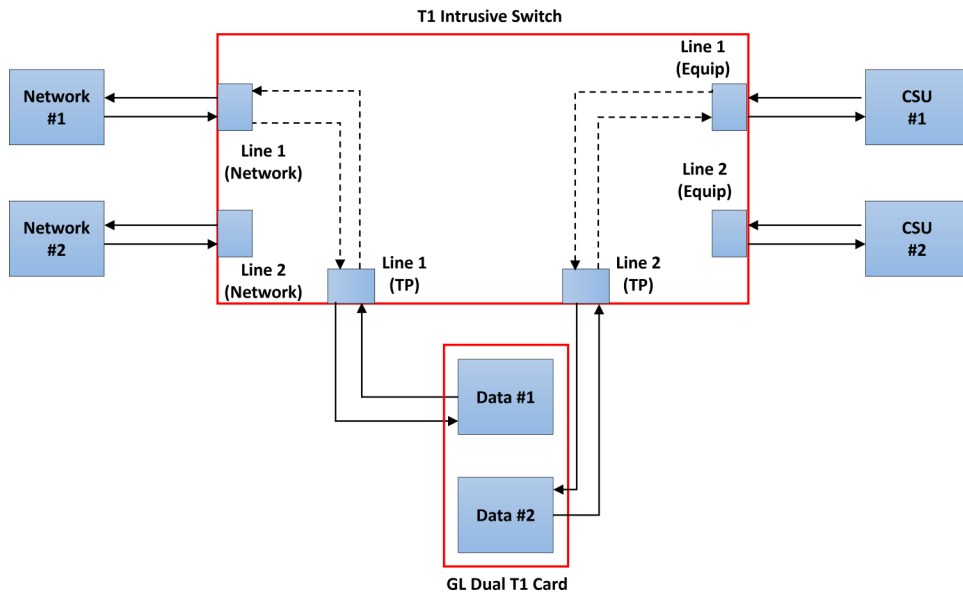
Dual Direction Monitoring

This allows to monitor the incoming signals from the Line and the Equipment non-intrusively.

Monitoring Dual Direction

Dual Direction Testing

This allows to test the incoming signals intrusively from the Line and the Equipment at the same time.
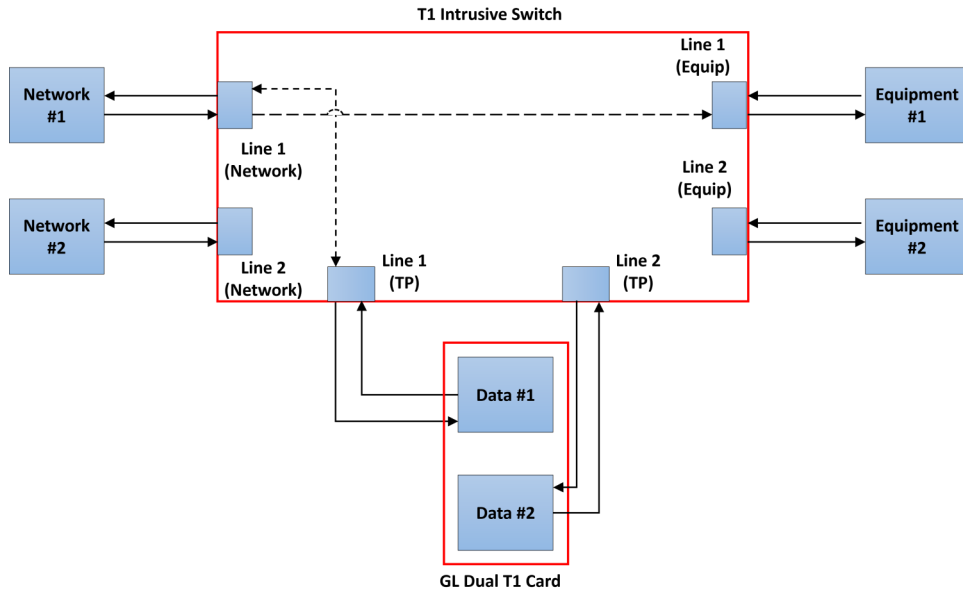
Dual Direction Testing

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Other Detailed Configurations (Contd.)

## Monitor Line Loopback with Signal Thru

This allows to loopback the Line signal within the Switch and allow the test port to monitor. The signal from the Line is passed thru to the Equipment .

Monitoring Line Loopback with Signal Thru

Drop and Insert to Equipment

It is an intrusive test allows to drop the received signal from the Line and insert the generated signal from the test card to the Equipment.
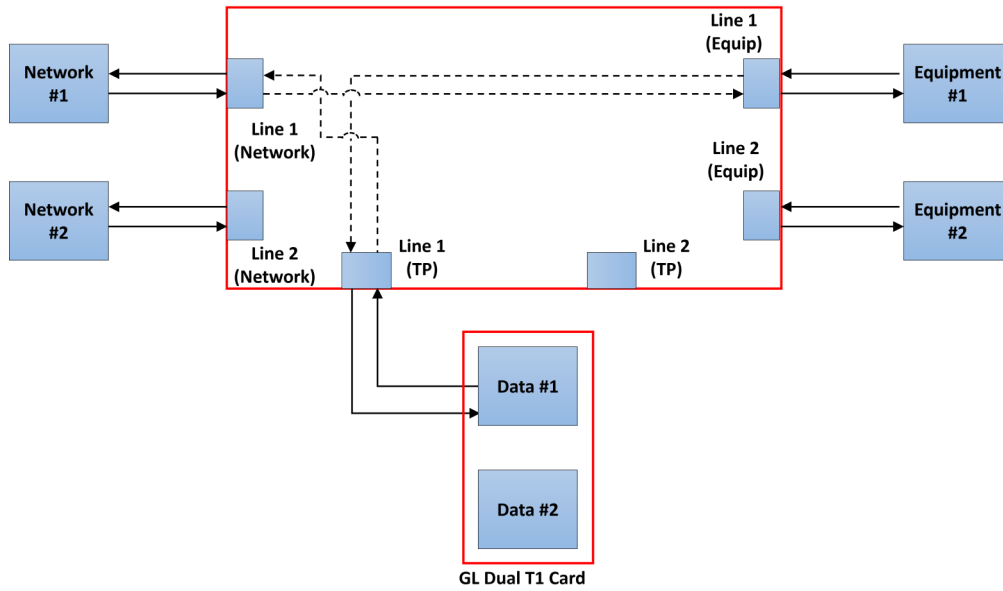
Drop and Insert to Equipment

GL Communications Inc.
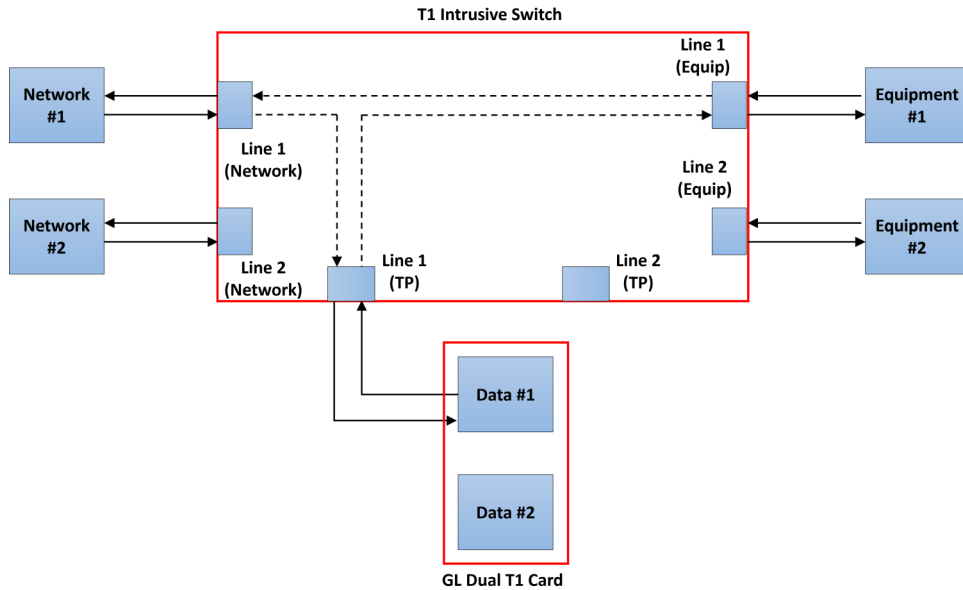
Other Detailed Configurations (Contd.)

Drop and Insert to Line

It is an intrusive test allows to drop the received signal from the Equipment and insert the generated signal from the test card to the Line.

Monitoring Dual Direction

Dual Cable Connection

It is an intrusive test allows to test the Equipment/Line. The test card 2 provides Keep Alive signal towards the Line/Equipment respectively.

Dual Direction Testing

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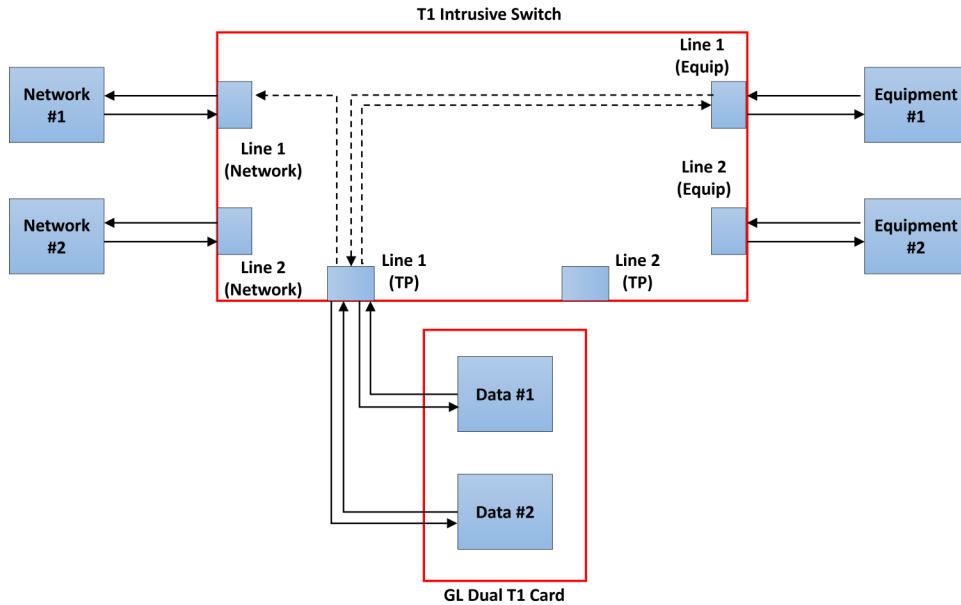
Buyer's Guide

Item No	Product Description
SWT001	T1 E1 or J1 Switch

Item No	Related Hardware
	*Specifications and features subject to change without notice.
PTE001	tProbe™ Dual T1 E1 Laptop Analyzer
FTE001, ETE001	Quad and Octal T1 E1 Analyzer Boards
XTE001	Dual Express (PCIe) T1 E1 Boards

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

For more information, refer to T1 E1 or J1 USB Controlled Switch webpage.