



Installing the Dialogic® Brooktrout® TruFax Analog PCI Express Board

Products Discussed in This Document

901-017-03 TruFax 200E LP

The Dialogic® Brooktrout® TruFax Analog PCI Express boards are low profile, single-slot, PCI Express serial I/O bus-compatible fax boards. They provide the following:

- ◆ On-board analog loop start connections
- ◆ V.17 fax transmission speeds
- ◆ Up to two fax channels per board

The TruFax Analog PCI Express Series boards use 3.3V and 12.0V power from the serial bus and can be inserted into a 1x, x4, x8, or x16 bus (signaling) slot.

You need an application to use a TruFax Analog board. Dialogic does not provide the application or a driver for this board. Normally, you purchase the application and driver from a third party vendor.

Safety Compliance Statements

- ◆ Install this board only in UL Listed equipment that has instructions stating that the user may install and remove accessory boards.
- ◆ Disconnect any TNV circuit connectors (telephone line cords) from this board before removing the cover of the equipment.

System Requirements

This board must be installed in an enclosure that meets the following specifications:

- ◆ A Pentium or later host processor
- ◆ A PCI Express serial I/O bus slot that is x1 wide or greater. See [Recognizing PCI Express Slots](#) for more information.
- ◆ Temperature: 0 C - 50 C
- ◆ Humidity: 10% - 90% (non-condensing)
- ◆ Power Requirements:

+3.3V	+3.3 Aux	+12V	Total Power
0.7A	0.050A	0.25A	5.5W

The following is also required:

- ◆ Telephone service: analog loop start interface

Setting the Module Number

Set each board to a unique module number to easily identify the resources associated with a specific board in a multi-board system.

Use the SW-1 rotary switch (Figure 1) to set a unique module number for each Brooktrout Fax Board. See Figure 5 for the switch location. Select a number from 2 - F on the rotary switch. Settings 0 and 1 are reserved and cannot be used.

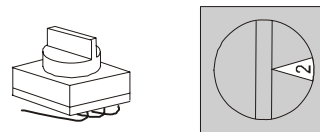


Figure 1. Rotary Switch (SW-1)

Installing the TruFax Board

To install your board:

1. Turn off your PC and remove the cover.



Caution: A small amount of static electricity can destroy the sensitive components on your board. To prevent static damage, always connect yourself to ground using a ground strap before touching a circuit board. Handle boards only by the edges or metal mounting brackets and transport boards in an anti-static bag.

2. Locate a free PCI Express bus slot (see Figure 2).
3. Carefully align the board with the slot and firmly seat the PCI Express Board Edge connector into the PCI Express slot.
4. Tighten the mounting bracket screw to secure the board to the chassis.



Warning: When installing the board, be sure that the mounting bracket is securely fastened to the chassis and the chassis is plugged into a grounded three prong plug. Improper chassis or bracket grounding can result in harmful or fatal electrical shock as well as component damage.

5. Replace the cover.
6. Turn on your computer.

Note: Brooktrout Fax Boards should not be present in the computer during the installation of any operating system. The operating system might misinterpret the board as being some other device, with unpredictable consequences.

Recognizing PCI Express Slots

The PCI Express slots in the computer chassis appear as black slots. The TruFax Analog board has a PCI Express board edge connector. It can be inserted into any one of the PCI Express slots shown in Figure 2.

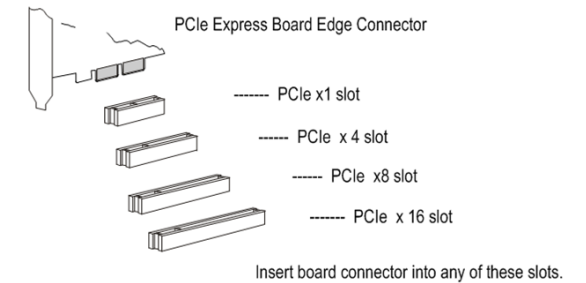


Figure 2. PCI Express Serial Bus Slots

Connecting the Phone Service

The appropriate telephone service and hookups must be installed at your site in order to connect to telephone service.

Use the cable supplied with the board. Use the following instructions to connect your board to Analog Loop Start service:

1. Plug one end of the cable into the RJ-45 telephone connector on the board for channels 0-3.
2. Plug the other end into the wall connector for your telephone service.

See Figure 3 for pinout details for your board:

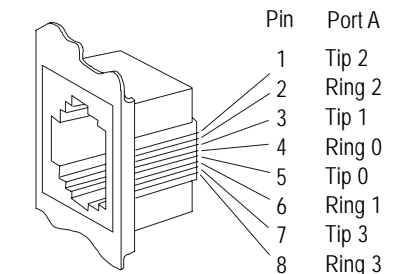


Figure 3. Analog Connector Pinouts

Understanding LED Signals

LEDs on the Mounting Bracket

The LEDs on the mounting bracket provide information about the status of the different systems on the board. To identify and locate these LEDs, see Figure 4.



Figure 4. End Panel RJ 45 Connector and LEDs

The following tables describe how the end panel LEDs provide information:

Board Status LED

Board Status LED	Meaning
Flashing yellow (1.5 second rate)	Board is powered up and is passing self-test checks.
Steady red	Board is powered up, but the self-test has failed.
Flashing yellow and green	Board is powered up and is downloading firmware.
Flashing green (1 second rate)	Firmware is downloaded, and the board is in service.
Solid green	Board is hung, needs to be reset.
Flickering red	Board has failed, needs to be reset.
Off	Board has no power, or board is hung and needs to be reset.

Channel LEDs

Channel LEDs	Meaning
Off	Channel is on hook.
Flashing at 0.5 second rate	Channel is off hook.
Flashing at Ring Cadence	Incoming ring signal.

Note: For TruFax 200E LP, only Channel 0 and 1 LEDs are active.

LEDs on the Brooktrout Fax Board

The LEDs on the board provide information about the status of the board. To locate these LEDs, see Figure 5.

The following table describes how the LEDs on the board provide information:

LED	Meaning
DSP FW	Displays the status for DSP that supports the four ports on the connector (RJ-45). After the firmware is loaded and during normal execution, this LED blinks about every second. If the LED is not blinking, the DSP firmware is not running.
Power	Steady green indicates good board power.
Reset	Red indicates board is in reset.

Using the TruFax Board

Once you have installed the TruFax Analog board, install and configure your software application according to instructions included with the software.

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<http://www.dialogic.com/warranties>

Getting Help

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To obtain technical support, please use the web site:

<http://www.dialogic.com/support>

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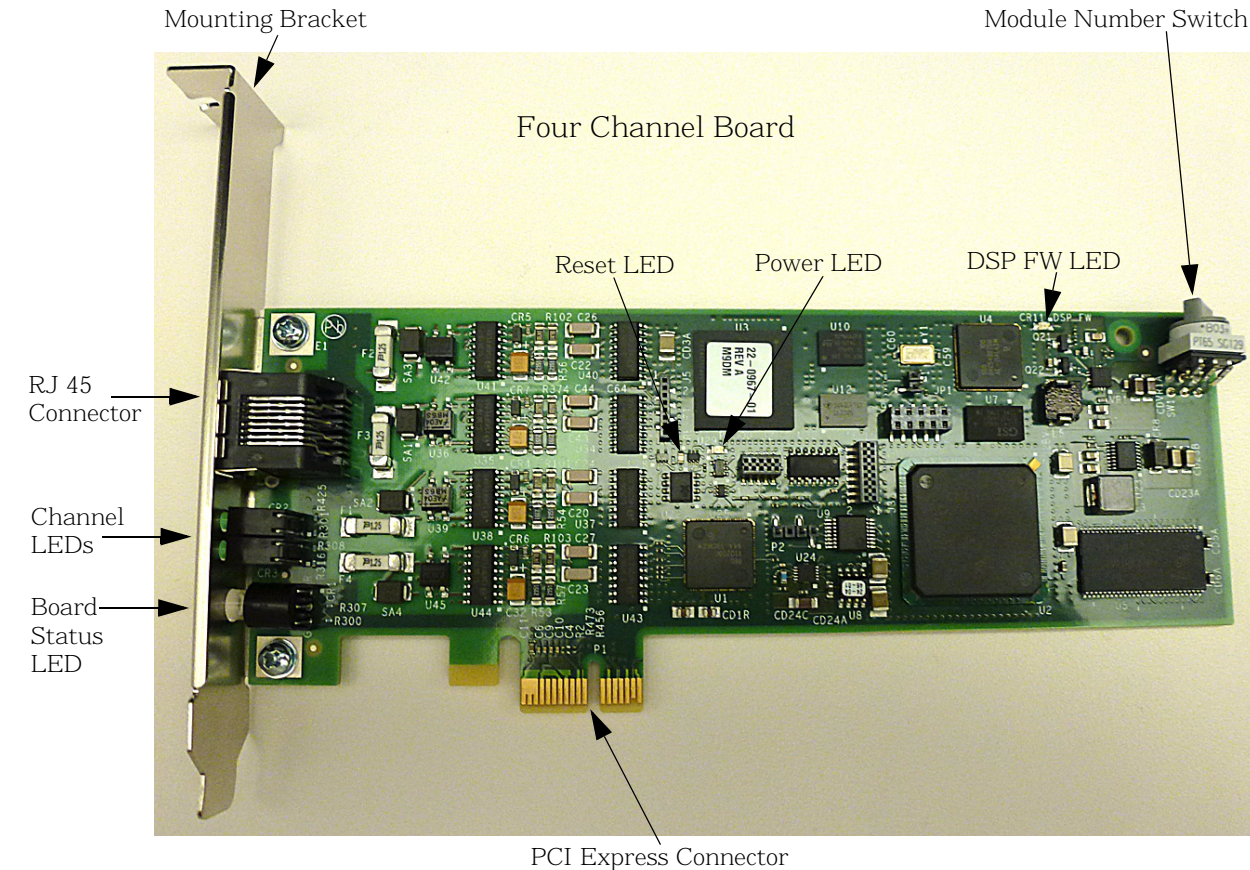


Figure 5. Dialogic® Brooktrout® TruFax Analog Low Profile PCI Express Series Board