# intel<sup>®</sup> Dialogic<sup>®</sup> D/240PCI-T1

**Quick Install Card for PCI** 

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## **Before You Begin**

#### **Electrostatic Discharge**

#### CAUTION

All computer boards are electrostatic sensitive. Handle all static sensitive components, boards and computers at a static-safeguarded work area.

#### A static-safe work area consists of:

- a grounded, static-dissipative wrist strap that drains static charge from the person wearing the strap.
- a **work surface** covered with or composed of a grounded, static-dissipative material that drains electrical charges from conductive materials placed on the surface.

Both items ensure that static charges are drained to a safe rate and current level.

Always observe these practices to maintain a static-safe environment during the entire installation:

- Use the wrist strap to ground yourself to the static-safe work area.
- Remove the board from the shipping carton and static shielding at the static-safe work area.
- Lay the board on the static-dissipative work surface.





Part	Function	
SW100	Board slot identification switch	
CT Bus Edge Connector	CT Bus connector	
BK2	ISA edge retainer	
JP2, JP3, JP4, JP5	Jumpers to determine signal termination on CT Bus	
JP6, JP7	Jumpers to select CT Bus clock type	
Power LED	Indicates power status	
Loopback LED	Indicates remote loopback mode	
SW500	Remote loopback switch	
Green LED	Signal present LED; indicates powered up and receiving signal from external T-1 sources	
Yellow LED	Alarm to indicate loss of frame synchronization at far end external network	
Red LED	Alarm to indicate loss of frame synchronization on incoming line from external network	
RJ-48C	Connector to external digital network interface	

## **Configuring the Hardware**

**NOTE:** This product allows you to use the factory default hardware settings for quick installation and operation. However, you should review the following information and select any options as desired.

#### **Board Identification Number**

Device names are used to identify and to communicate with boards. For example, you need to know a device name to use the **dx\_open()** function. Device names are assigned in the order specified by the board numbering methods described below. The addition or removal of any boards could cause the renumbering of boards in the system. Consequently, the assignment of device names could change during the next system start up.

#### **Geographical Assignment: Board ID 0**

All of the PCI boards can share the factory default setting of board ID 0 (set with rotary switch SW100). Board numbers are assigned automatically based on the PCI bus and slot number. This method is not available for ISA bus boards. **NOTE:** If you add a board to the system, existing board IDs could change, depending upon the PCI bus and slot number where the new board is installed. (Board IDs set using the geographical assignment method will be assigned before board IDs that are manually set to 1-9, A-F.)

#### Manual Assignment (SW100): Board IDs 1-9, A-F

In addition to the geographical assignment method, the manual assignment method can be used to further identify the boards in your system.

If you change the board ID from the factory default of 0 to any other number, the software will use that setting to identify the board.

**NOTE:** When not set to 0, the board ID must be unique (it must not conflict with the board ID of any other Intel ISA or PCI telecom board). If you use this method, it is recommended that you assign sequential numbers starting at 1. This method is also used for all ISA bus boards.

#### Precedence in Mixed Systems

In systems using both methods, or where both ISA and PCI boards exists, PCI boards that use board ID 0 will be

numbered **before** PCI or ISA bus boards that use board IDs 1-9, A-F. Board IDs set using the geographical assignment method will be assigned before boards IDs manually set to 1-9, A-F.

For more details on board numbering, see the  $Intel^{\textcircled{R}}$  website at:

http://resource.intel.com/telecom/support/appnotes/ PCI.htm#Board%20Identification%20Number

#### Remote Loopback Switch (SW500)

The default (normal mode, loopback disabled) for SW500 is as shown. Once the firmware is downloaded, turn SW500 to the right to set on loopback mode. Turning the switch to the right enables you to verify the T-1 or E-1 connection. This switch position overrides any board modes set by your application.

#### JP2 - JP7 Settings

All boards are set at the factory default of SCbus clocks selected and no signals terminated. If you wish to modify the settings, refer to the following table.

Jumpers JP6 and JP7 are 3-pin jumpers used to select the type of CT Bus clock signals by installing the jumper clips on pin pairs 1+2 or 2+3. The clips must be installed on the same pair of pins for both jumpers.

SELECT	SHUNT	STANDARD
* SCLK	JP6 PINS 1+2	SCbus
* SCLKX2	JP7 PINS 1+2	SCbus
C2	JP6 PINS 2+3	MVIP
C4	JP7 PINS 2+3	MVIP

#### \* indicates factory default setting

Jumpers JP2, JP3, JP4, and JP5 are 2-pin jumpers used to terminate signals on the bus. The jumper clips must be installed on all four jumpers to terminate the CT Bus at that board.

TERMINATE	SHUNT	STANDARD
CT_FRAME_A	JP2	SCbus
CT_FRAME_B	JP4	SCbus
CT_C8_A	JP3	MVIP
CT_C8_B	JP5	MVIP

**NOTE:** Only the boards at the ends of the ribbon cable must have their terminations enabled. All other boards must not have the jumper clips installed.

#### ISA Edge Retainer (BK2)

If you are not installing your board in an ISA form factor PCI slot, remove the ISA edge retainer (BK2).

### Installing the Hardware

**NOTE**: Intel Dialogic hardware must be installed before the Dialogic System Software.

- 1. With your computer on the static-safe work area, switch off the power and disconnect all power cords from the electrical outlets.
- 2. Remove the chassis cover.
- 3. Select an empty expansion bus slot and remove the slot's retaining screw (if applicable).
- 4. Use the slot's board guides as you insert the board

edge retainer into the chassis slot. Press firmly until the board is securely seated in the slot.

- 5. Tighten the retaining screws to secure the board firmly in the chassis slot.
- 6. Select a new slot and repeat steps 3-5 for each board you are installing.
- 7. Use the CT Bus cable to connect the board you are installing to other boards in the system.
- **NOTE:** Your system may include both CT Bus and SCbus boards. To connect both board types, you must install a CT Bus/SCbus Adapter on one of the CT Bus boards in a system. See the *CT Bus/SCbus Adapter Quick Install Card* for installation details for the Adapter and the bus cables. Contact your Intel sales representative to order an adapter.
- 8. Replace the chassis cover when finished and reconnect the power cords. Turn the power to the chassis **ON**.

## After Installing the Hardware

After installing the hardware, proceed with the system software installation as described in the system software documentation (if applicable).

For technical specifications and product information, see the Intel<sup>®</sup> website at *http://www.intel.com/design/network/products/telecom* 

#### **Direct Return Authorization (DRA) Process**

To return a board for repair or credit in the American geographies, use the online form at *http://www.intel.com/support/motherboards/draform.htm* 

To return a board for repair or credit in all other geographies, please contact your distributor.