Dialogic®

Dialogic® DI0408LSAR2I Switching Board

Installation Guide

WARNING! This Dialogic® analog station interface product is designed to be used only within the walls of a single stand-alone building or structure (i.e., on-premise). It is not designed to sustain electrical overstress from external sources and factors such as severe weather conditions. Electrical overstress can be introduced on cables extending outside of the walls of a single stand-alone building or structure (i.e., off-premise) such as in a campus environment or other multi-building facility. Severe electrical overstress caused by misuse of this interface product with cables extending outside of the walls of a single stand-alone building or structure could cause property damage and/or personal injury and/or death. Such misuse voids the warranty for this interface product.

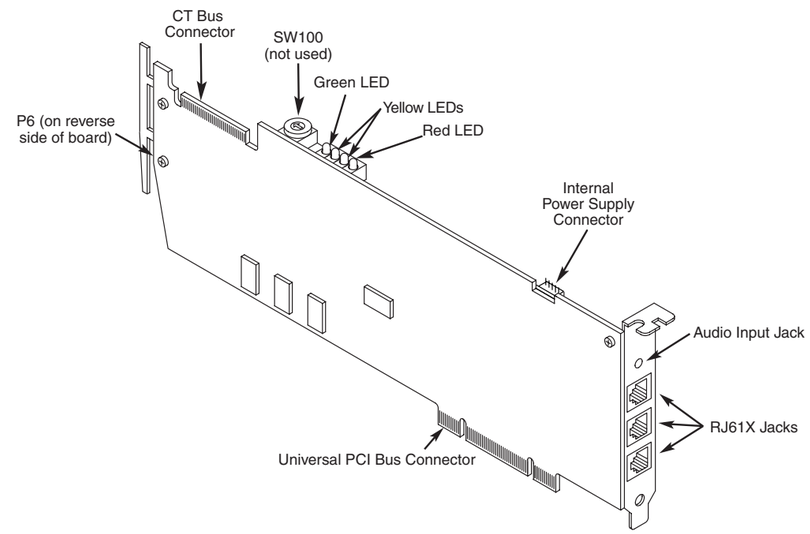
1. Product Description

The Dialogic® DI0408LSAR2I Switching Board ("board") provides four analog loop start interfaces and eight analog station interfaces in a Universal PCI form factor. The board supports call processing, voice, conferencing, and fax applications.

The Dialogic® DI0408LSAR2I board requires a DIINTPPS Internal Telephony Power Supply that must be installed in the computer with the board for analog station voltage and ring generation. A 3-drop Internal Telephony Power Supply Cable connects up to three Dialogic® DI0408LSAR2I boards to the DIINTPPS.

Part number: 64-0061-02

Physical Layout



The Dialogic® DI0408LSAR2I board includes the following components:

P6: CT Bus termination jumper block.

CT Bus connector: Provides a connection to the CT Bus. The connector is ECTF H.100-compliant.

Green LED: When lit, indicates that the power is on.

Yellow LEDs: User defined #1 and #2.

Red LED: When lit, indicates that the board is out of service.

Internal power supply connector: Connects to the DIINTPPS Internal Telephony Power Supply.

Audio input jack: For music on hold feature.

RJ61X jacks: Connect to telephone breakout box.

Universal PCI bus connector: Connects to PCI bus.

Additional Information

Additional information about the Dialogic® DI0408LSAR2I board is available from a number of sources.

The Release Guide and Release Update for your particular Dialogic® system software release may include information on new features for the board and any issues that may relate to it.

The Regulatory Notices document that is packed with each Dialogic® DI0408LSAR2I board contains safety warnings and national requirements for proper operation of telecommunications equipment.

2. Before You Begin

Protecting the Board from Damage

CAUTION: All computer boards are sensitive to electrostatic discharge. Handle all static-sensitive boards and components at a static-safe work area, and observe anti-static precautions at all times.

If you are not familiar with ESD safety precautions, visit http://dialogic.com/support/hwinstall to learn more.

Unpacking the Board

CAUTION: Do not remove the board from the anti-static packaging until you are ready to install it. Observe proper anti-static precautions at all times.

Unpack the board according to the following steps:

1. Prepare a static-safeguarded work area.
2. Carefully remove the board from the shipping carton and static-shielding bag. Handle the board by the edges and avoid touching the board's components.
3. Lay the board on the static-safe work surface.

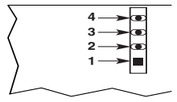
Note: Place boards in static-shielding bags when carrying boards from station to station.

3. Configuring the Board

Note: The information in this section applies only to boards that will connect to the CT Bus. This information is **not** applicable when boards are used in stand-alone mode or when boards are operating in SCbus mode (that is, using only SCbus master/slave boards without a CT Bus master board).

Certain clock signals on the CT Bus must be terminated on boards that are physically located at either end of the bus. Termination settings for the clock signals are determined using pins on the P6 jumper.

P6 Jumper



CT Bus Termination Settings

P6 Jumper Block	Setting	Function
Pins 1 and 2	Clip installed	Bit clock signals CT_C8_A, CT_C8_B, CT_FRAME_A, and CT_FRAME_B are terminated.
	Clip removed	Bit clock signals CT_C8_A, CT_C8_B, CT_FRAME_A, and CT_FRAME_B are unterminated.
Pins 3 and 4 (MVIP-90 bus only)	Clip installed	Bit clock signals C2 and / C4 are terminated.
	Clip removed	Bit clock signals C2 and / C4 are unterminated.
Note: When pins 1 and 2 are used, use pins 3 and 4 as well.		

Only the boards located at each end of the CT Bus cable should have the jumper clip installed to terminate the clock signals. Do not terminate the clock signals on any boards located between the end boards of the CT Bus cable.

4. Installing the Board

CAUTION: These procedures assume familiarity with the general terminology associated with electronic equipment and with the safety practices and regulatory compliance required for using and modifying electronic equipment.
These procedures should be performed only by qualified technical personnel.

WARNING! Unplug the equipment before performing the procedures described here. Failure to disconnect the power before you open the chassis can result in personal injury. Ensure that the system is disconnected from its power source and from all telecommunications links, networks, or modem lines whenever the chassis cover is removed. Do not operate the system with the cover removed.

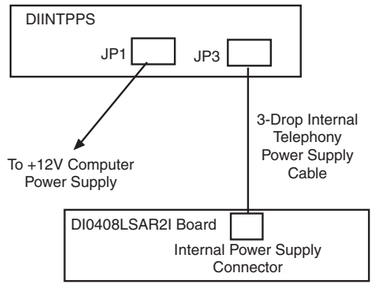
CAUTION: To avoid possible damage to the board, remove power from the computer before beginning installation. Observe proper anti-static precautions at all times while handling and installing the board.

After ensuring that the power is off and the system is disconnected from its power source, install the DIINTPPS Internal Telephony Power Supply and Dialogic® DI0408LSAR2I board as follows.

Note: In order to use the DIINTPPS, the computer power supply must be a SELV power source or a source that has reinforced insulation.

1. Remove the computer cover.
2. Install the DIINTPPS in an empty slot of the 5¼-inch drive bay. Place the DIINTPPS so that the input and output connectors are facing the inside of the computer chassis.
3. Fasten the DIINTPPS to the side walls of the drive bay with four M3 X 5MM lg. screws. Insert screws through the two mounting screw holes on each side of the DIINTPPS.
4. Locate an unused disk drive power cable from the computer power supply, and connect it to the DIINTPPS input power connector JP1.
5. Install the Dialogic® DI0408LSAR2I board:
   a. Select an empty PCI bus slot, and remove the slot's retaining screw and access coverplate.
   b. Insert the board into the chassis. Press firmly until the board is securely seated in the slot.
   c. Replace and tighten the retaining screw to secure the board.
6. Repeat Step 5 for each board you are installing.
7. Connect the Dialogic® DI0408LSAR2I board(s) to the DIINTPPS using the 3-drop Internal Telephony Power Supply Cable as shown in the "Connecting to DIINTPPS Internal Telephony Power Supply" figure. Up to three Dialogic® DI0408LSAR2I boards can connect to the DIINTPPS. Connect the 3-drop Internal Telephony Power Supply Cable to the DIINTPPS output power connector JP3.
8. For applications that require media sharing or switching across the CT Bus, connect the board(s) you are installing to other boards in the system using the CT Bus cable.This step is not needed when boards are used in stand-alone mode.
9. Replace the cover and reconnect the power cords.

Connecting to DIINTPPS Internal Telephony Power Supply



Dialogic® DI0408LSAR2I Internal Power Supply Connector Pin Designations

Pin	Signal	Pin	Signal
1	No connect	4	-24 V (loop current)
2	Ground	5	-70 V (ring voltage)
3	Ground		

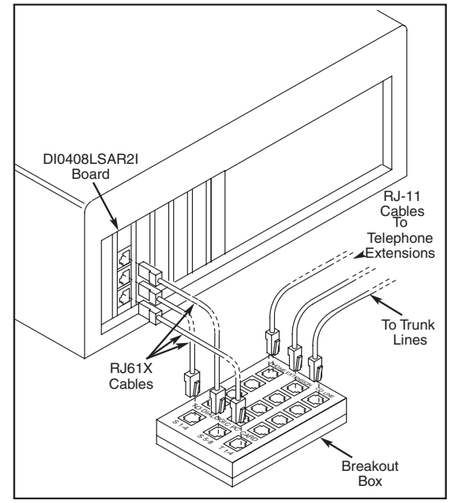
5. Connecting to External Equipment

The RJ61X jacks on the Dialogic® DI0408LSAR2I board connect to a telephone breakout box. Before connecting, set up the breakout box as follows:

1. Open the back of the breakout box and remove the adhesive pads from the housing.
2. Mount the back of the breakout box to the desired location in one of two ways:
   - Apply double-sided tape to the side of the rear panel that touches the mounting surface and press the tape against the mounting surface, or
   - Hold the rear panel against the mounting surface. Insert screws through the screw holes and fasten the panel to the surface.
3. Insert the front panel of the breakout box into the rear panel.

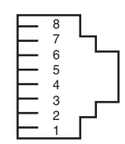
Connect the Dialogic® DI0408LSAR2I board to the breakout box using RJ61X cables as shown in the "Connecting to Breakout Box" figure.

Connecting to Breakout Box



If you are building your own cable, you should be familiar with the connector pin designations.

RJ61X Jack



RJ61X Jack Pin Designations

Pin	Signal	Pin	Signal
1	TIP D (D = 4, 8, or 12)	5	RING A
2	TIP C (C = 3, 7, or 11)	6	RING B
3	TIP B (B = 2, 6, or 10)	7	RING C
4	TIP A (A = 1, 5, or 9)	8	RING D

6. After Installing the Board

After installing the board, you can proceed with the following activities:

- Installing the software
- Configuring the software
- Testing the board
- Troubleshooting problems

Install the Dialogic® system software and configure the Dialogic® DI0408LSAR2I board as described in the software installation and configuration information for your system release.

The device driver, part of the system software, assigns board identification (ID) numbers in ascending order (beginning with 0) as it detects each board in the system. The board ID number is used by the system software to recognize the board.

Note: If you add a board to the system, the existing board ID numbers may change, depending on the PCI bus and slot number where the new board is installed.

After the hardware and the system software are installed on a Windows system, use the Dialogic® Configuration Manager (DCM) utility to retrieve the board ID numbers assigned to the boards.

Test the Dialogic® DI0408LSAR2I board as described in the diagnostics documentation for your system release. The administration and diagnostics guides for your system release provide information about troubleshooting problems.

7. Removing the Board

Removal of the board is a straightforward process. Remove the board using the reverse of the procedure described in Section 4.

8. Warranty and Return Information

For specific warranty information for this board, refer to the Warranty section of the Products page, located at this URL: http://www.dialogic.com/warranties/.

Contacting Technical Support

Dialogic provides technical support for its products through a network of value added distributors who are trained to answer technical questions on installing and configuring Dialogic® products. If you are unsure how to contact your support channel, please call Dialogic in the United States at 973-967-6600 (9am-5pm EST) and we will assist in obtaining the appropriate support channel. Outside the United States please refer to http://www.dialogic.com/support/contact to obtain local contact information. Dialogic also provides direct support via Dialogic® Pro™ Services agreements. For more details of direct support from Dialogic please refer to:http://www.dialogic.com/support/DialogicPro

Returning a Product

To return a board for warranty repair or any other returns, please refer to the following: http://www.dialogic.com/support/hwfaults.

9. Sales Assistance

If you have a sales question, please contact your local Sales Representative or the Regional Sales Office for your area. Address, telephone and fax numbers, are available at the Dialogic website located at: http://www.dialogic.com/contact.htm.

To purchase Dialogic® products, please refer to the following website to locate the appropriate supplier: http://www.dialogic.com/purchase.htm.