



Dialogic® DSI SS7LDH4Q Network Interface Board Installation Guide

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1. Product Description

The Dialogic® DSI SS7LDH4Q Network Interface Board (herein referred to as DSI SS7LDH4Q) is a low-density network interface board with four T1/E1 digital network interfaces in a half-length PCI Express form factor.

The DSI SS7LDH4Q board includes the following components, shown in the Physical Layout illustration:

J1 RJ-48C Jacks: Four connectors, each of which connects to T1 or E1 network interfaces. Refer to the Physical Layout illustration for the network interfaces supported by each connector.

CR2 General Network Interface Alarm LED:

When the yellow LED is lit, it indicates that an alarm condition is present on one or more of the network interfaces. When unlit, alarm conditions are cleared.

CR1 Reset/Power Dual Green/Red LED: When the green LED is lit, it indicates that board power is good. When the green LED is unlit, either power has not been applied to the board, or the board has detected that one or more of the on-board-generated voltages are not correct.

When the red LED is lit, it indicates that the board is in a reset state because either a PCIe Reset from the edge connector is active, or one or more of the on-board-generated voltages are not correct.

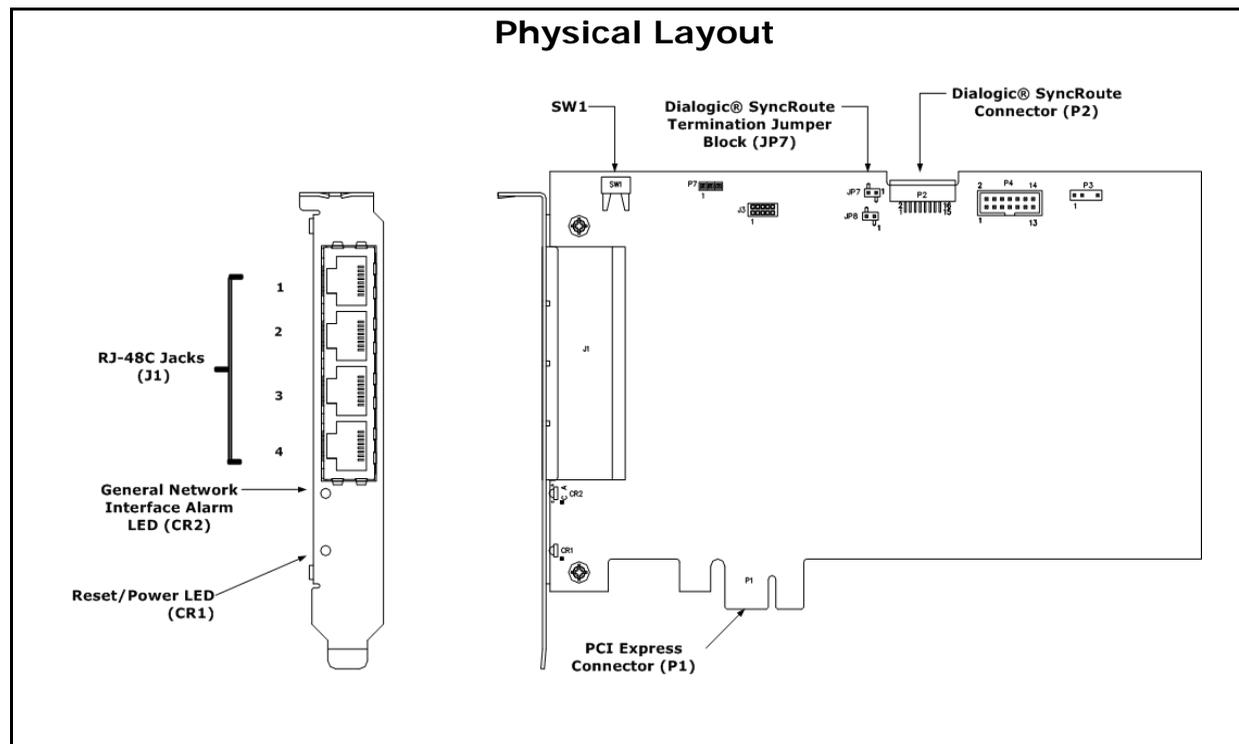
SW1: Rotary switch used when setting board ID.

P2: Dialogic® SyncRoute connector.

JP7: SyncRoute termination jumper block. Only the board in the end positions of a SyncRoute connector should be terminated. Factory default is not terminated (clip installed over only one pin).

P1: PCI Express connector, host bus connector. Compatible with x1 or larger PCI Express Link connectors.

Note: P3, JP8, J3, P7, and P4 in the physical layout figure are not user configurable.



Additional Information

Additional information about each DSI SS7LDH4Q board and the specifications to which it conforms is available in the following documents:

- The Regulatory Notices document, packed with each DSI SS7LDH4Q board, contains safety warnings and international and national requirements for proper installation and operation of telecommunications equipment.
- Dialogic® DSI SS7LD Network Interface Board Programmer's Manual, available at <http://www.dialogic.com/support/helpweb/signaling>, provides information about the software used with each DSI SS7LDH4Q board.
- The product data sheet, available at <http://www.dialogic.com/products/list.asp>, provides a functional description as well as information about applications and configurations, features, and technical specifications.
- The latest software, available at <http://www.dialogic.com/support/helpweb/signaling>.
- PCI Express Base Specification Rev 1.0a, available at <http://www.pcisig.com>

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://www.dialogic.com/support/hwinstall> to learn more.

Unpacking the Board

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 anti-static packaging. Handle the board by the edges and avoid touching the board's components.
3. Lay the board on the static-dissipative work surface.

Note: Place board in static-shielding bag when carrying board from station to station.

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.

3. Configuring the Board

The DSI SS7LDH4Q board uses Plug and Play technology to simplify installation. No user configuration is required for IRQ or memory address.

The DSI SS7LDH4Q board has the following manually configurable options:

- Board ID
- SyncRoute termination

Setting the Board ID

The Dialogic® DSI SS7LDH4Q board supports the use of two different modes of Geographic Addressing within the system (PCI address mode and ADDR switch-based addressing).

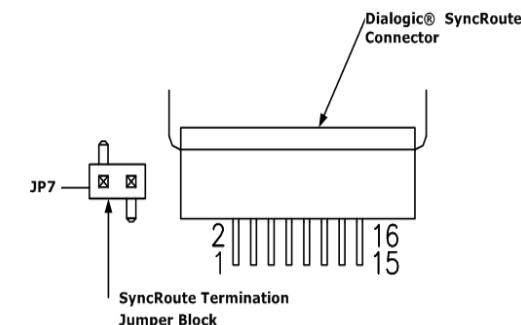
To use ADDR switch-based addressing you must explicitly specify the board ID numbers by setting SW1 on each board to a different position (0-9 or A-F).

For more information on either mode of Geographic Addressing, see the Dialogic® DSI SS7LD Network Interface Board Programmer's Manual.

Setting Dialogic® SyncRoute Termination

If you are connecting multiple boards via a SyncRoute connector, the bus signal should be terminated on the boards that are located at the ends of the cable. All other boards should be left in their factory default configuration with the SyncRoute termination pins not linked.

To terminate the SyncRoute, install a link clip over the pair of JP7 pins indicated in the following figure.



4. Choosing a Slot

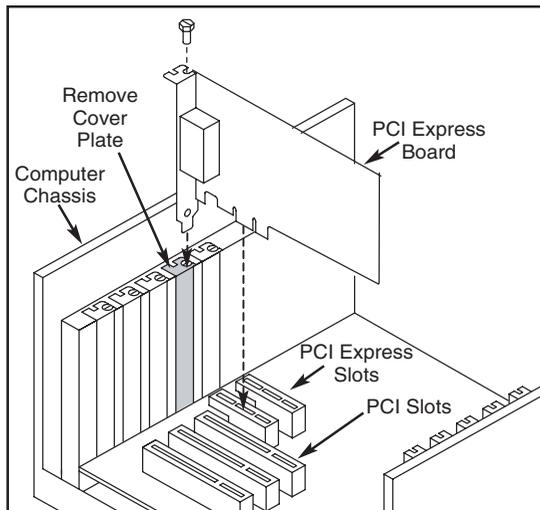
If the DSI SS7LDH4Q board is connected to one or more other boards via a SyncRoute connector, you should install the boards to minimize unused connectors on the cable (in addition to ensuring that the power requirements are met):

- Install boards in adjacent slots whenever possible.
- If the DSI SS7LDH4Q board is connected to one or more PCI boards, use the PCI Express slot(s) located closest to the PCI slots.

5. Installing the Board

WARNING! Unplug the equipment before performing the procedures described in this section. 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.



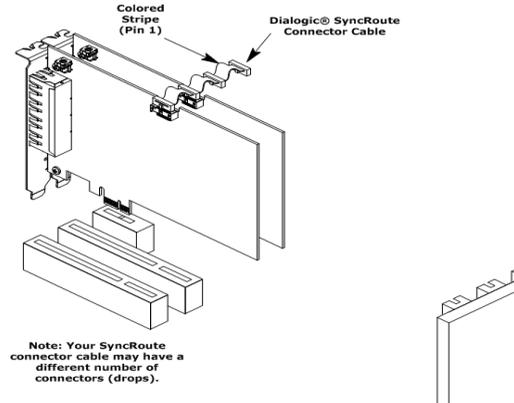
To install the DSI SS7LDH4Q board, perform the following steps:

1. Turn off all power to the system and disconnect the system's power cords.
2. Remove the computer's cover.
3. Choose an empty PCI Express expansion slot and remove that slot's retaining screw and access cover plate.
4. Insert the board's edge connector into the bus slot, and apply firm pressure to the top edge of the board until the board is fully seated in the edge connector.

5. Reinstall the retaining screw.
6. Repeat Step 3 through Step 5 for any additional boards you are installing.
7. If applicable, connect the boards together with a SyncRoute connector of the appropriate size (not included). If possible, use a cable assembly that matches the total number of boards in your system. If the cable has more than one unused connector, install the cable so that all the unused connectors are at one end of the cable.

Note: An Optional Transition Cable Assembly used for connecting the DSI SS7LDH4Q board to boards that have a standard 68-pin CT Bus interface is available.

8. Replace the computer's cover.
9. Reconnect the computer's power cord.



6. Connecting to External Equipment

Each RJ-48C jack on the DSI SS7LDH4Q board supports one T1 or E1 digital network interfaces, that is 1, 2, 3, and 4. The following figure illustrates the pinouts of the four RJ-48C jacks on the DSI SS7LDH4Q board.

Pinout for RJ-45 Jacks (4) on DSI SS7LDH4Q Bracket

1	RCV_RING
2	RCV_TIP
3	DO NOT CONNECT
4	XMIT_RING
5	XMIT_TIP
6	DO NOT CONNECT
7	DO NOT CONNECT
8	DO NOT CONNECT

7. After Installing the Board

After installing the DSI SS7LDH4Q, refer to the DSI Software Environment Programmer's Manual for software installation and configuration instructions. En-

sure that the configuration is compliant with all local requirements.

Refer to the DSI SS7LD Network Interface Board Programmer's Manual for software licensing instructions.

8. Removing the Board

Removal of the DSI SS7LDH4Q board is essentially the reverse of the installation procedure, as summarized in Step 1 through Step 7 below:

1. Observe anti-static precautions.
2. Disconnect the telephony cables and optional splitter cables (if used).
3. Remove the computer's power cord.
4. Remove the computer's cover.
5. Disconnect the SyncRoute cable (if applicable).
6. Remove and set aside the board's retaining screw.
7. Remove the board and place it in static-protective packaging.

9. Contacting Technical Support

For Dialogic technical support issues, refer to the Dialogic Service Center at <http://www.dialogic.com/support>.

10. Returning a Product

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

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