DSI Option Card

For Digidesign VENUE Stage Rack

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email: techpubs@digidesign.com

Communications and Safety Regulation Information

Compliance Statement
This model Digidesign DSI Option Card complies with the following standards regulating interference and EMC:

- FCC Part 15 Class B
- EN 55103-1 E3
- EN 55103-2 E3
- AS/NZS 3548 Class B
- CISPR 22 Class B

Radio and Television Interference

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

DECLARATION OF CONFORMITY

We Digidesign,

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declare under our sole responsibility that the product

DSI Option Card

complies with Part 15 of FCC Rules.

Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Communication Statement

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or locate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Digidesign DSI Option Card

Tested To Comply with FCC Standards

FOR HOME OR OFFICE USE

Any modifications to the unit, unless expressly approved by Digidesign, could void the user's authority to operate the equipment.

Canadian Compliance Statement:

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Australian Compliance

European Compliance

CE 97

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Chapter 1: Overview

The DSI (Digital Stage Input) option card provides eight channels of software controlled and fully recallable digital inputs to your Digidesign® VENUE system. The eight digital inputs are available via either four two-channel AES/EBU XLR connectors or a single ADAT TOSLINK optical connector.

The DSI option card also provides a word clock out for synchronizing external digital devices.

The DSI option card is installed in the Stage Rack. Up to six DSI option cards may be installed in the Stage Rack, providing a total of 48 digital input channels.

For DSI card installation instructions, see Chapter 2, "Installing Option Cards."

For audio and synchronization connections and operational instructions, see the D-Show Guide.

DSI Card

DSI Option Card Components

The DSI option card package includes the following items:

- DSI option card
- Mounting screws
- Digidesign Registration Information Card

DSI Card Capabilities and Features

- Eight channels of digital inputs via four two-channel AES/EBU XLR3-female connectors or a single ADAT TOSLINK optical connector
- Word clock out connector for synchronizing external digital devices
- Automatic sample rate conversion (SRC) and detection on input; manually defeatable for lowest possible input latency
- SRC status LEDs for both AES and ADAT connections
- Lock status LEDs for both AES and ADAT connections

For more information on SRC and Lock LEDs, see "LEDs" on page 8.

Conventions Used in This Guide

All Digidesign guides use the following conventions to indicate menu choices and key commands in D-Show and Pro Tools:

Convention	Action
File > Save Session	In Pro Tools, choose Save Session from the File menu
Options > System Config	In the D-Show software screen, click Options to display the Options page, then click the System Config tab.
Ctrl+N	Hold down the Control key and press the N key
Ctrl-click	Hold down the Control key and click the mouse button

The following symbols are used to highlight important information:

User Tips are helpful hints for getting the most from your D-Show system.

Important Notices include information that could affect data or performance.

Shortcuts show you useful keyboard or mouse shortcuts.

Cross References point to related sections in the D-Show or Pro Tools Guides.

Chapter 2: Installing Option Cards

This chapter provides instructions for installing option cards in a Stage Rack. The following option cards can be installed in a Stage Rack:

SRI Stage Rack Input Card Provides eight analog mic/line inputs.

DSI Digital Stage Input Card Provides eight digital inputs.

SRO Stage Rack Output Card Provides eight analog line outputs.

DSO Digital Stage Output Card Provides eight digital outputs.

ANO A-Net Output Card Provides 16 channels of outputs to Aviom® Pro16™ personal mixers and devices.

Installation is the same regardless of the type of Stage Rack option card, with the exception of the ANO A-Net card. Up to six input cards of either type can be installed in stots A–F, and up to six DSO or SRO output cards of either type can be installed in slots G–M.

For information on installing and using the ANO A-Net card, see the A-Net Output Card Guide.

Installing Option Cards in the Stage Rack

Stage Rack option cards are installed in the Stage Rack and connected to a ribbon cable in the Stage Rack.

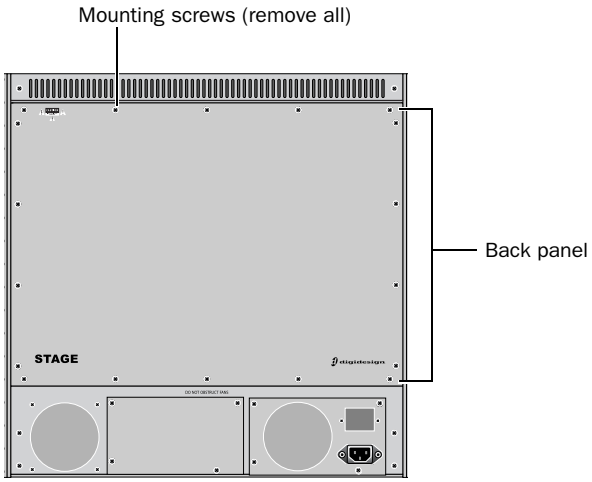
To install an SRI, SRO, DSI or DSO card:

1 Shut down your system.

2 Power down your Stage Rack.

3 Disconnect all cables from the Stage Rack.

4 Remove the Stage Rack's back panel cover by unscrewing its mounting screws (#1 Phillips).



Stage Rack main back panel

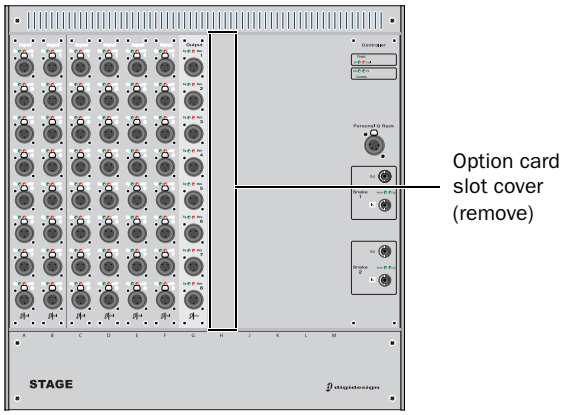
5 On the front panel of the Stage Rack, locate the slot where you want to install the option card.

Input Cards SRI or DSI cards may be installed in slots A–F only.

Output Cards SRO or DSO cards may be installed in slots G–M only.

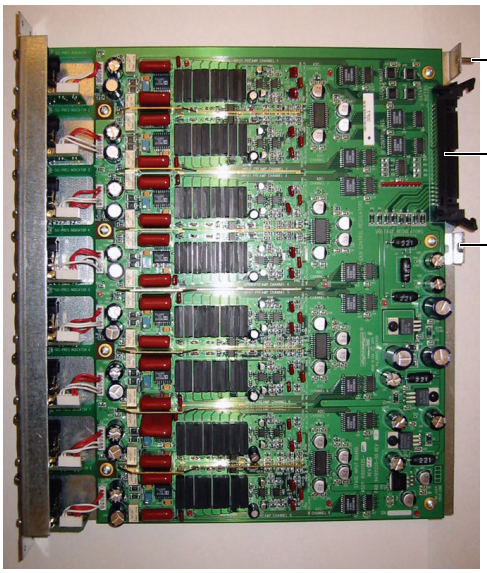
Up to six input cards of either type can be installed in slots A–F, and up to six output cards of either type can be installed in slots G–M.

6 Remove the card slot cover by removing the four screws holding it in place. Keep the screws nearby for securing the option card to the Stage Rack later.



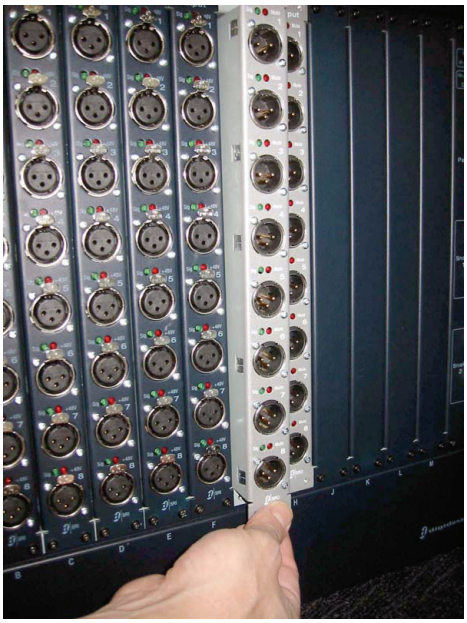
Stage Rack front panel

7 Remove the option card from its packing material. Hold the card by its edges.



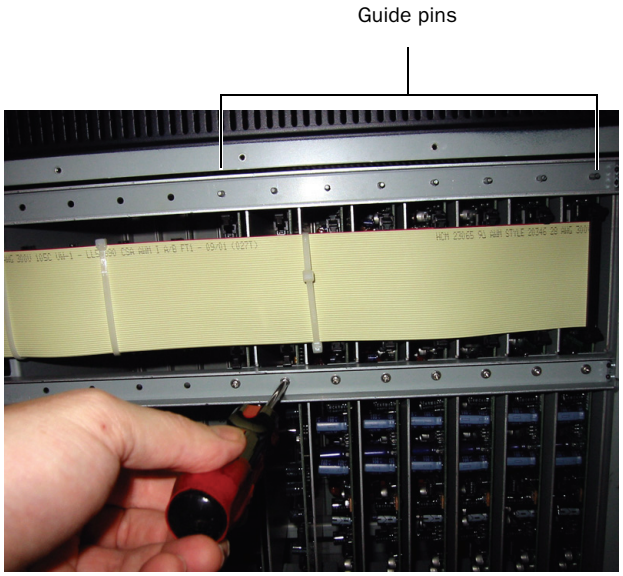
Stage Rack option card showing brackets and connector

8 Gently slide the option card into the option card slot. Use two hands, one to guide the card from the back of the Stage Rack, and the other to push the card in from the front of the Stage Rack. Align the guide pin at the top rear of the card with the corresponding hole in the back of the Stage Rack chassis.



Installing a Stage Rack option card in the Stage Rack (SRO card shown)

9 When the option card is seated in its slot, secure it to the Stage Rack chassis from the back of the Stage Rack with a provided mounting screw.

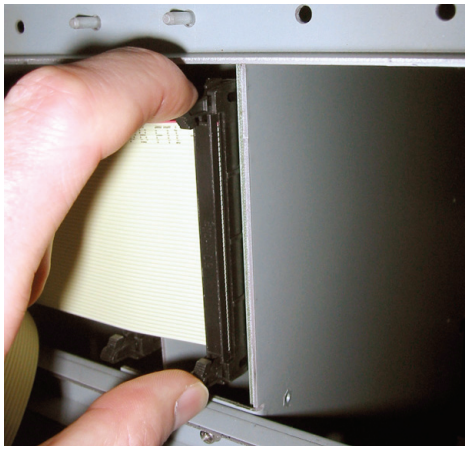


Securing a Stage Rack option card to the Stage Rack chassis

10 Secure the option card to the front panel of the Stage Rack using four provided mounting screws.

Securing a Stage Rack option card to the Stage Rack front panel

11 Connect the option card to its corresponding ribbon cable connector. Make sure the pins are oriented correctly. Secure the connection by moving the retaining clips on each side of the connector in ward. Check to make sure the cable is connected securely.



Connecting a Stage Rack option card to the Stage Rack ribbon cable

Confirming Installation

After you have installed an option card, you should confirm that you have installed it properly. You can confirm installation by checking your system hardware status.

To complete and confirm installation:

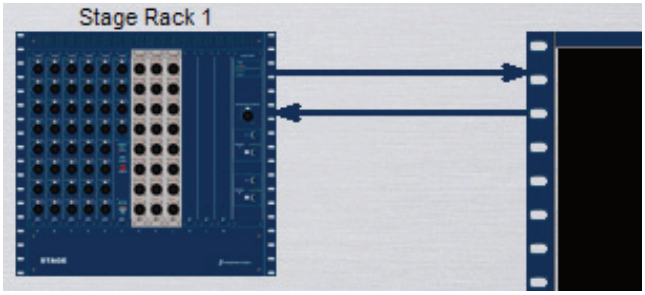
1 Reattach the Stage Rack's back panel.

2 Reconnect the power, Snake cable, and any audio cables to the Stage Rack.

3 Turn on your VENUE system.

4 Go to the Options page and click the Devices tab to view your system hardware status. The newly installed option card should appear in the Stage Rack graphic.

The newly installed option card's inputs or outputs should also become available in the corresponding "Stage" tab in the Patchbay.



Detail of Devices page indicating presence of a DSI card

For more information on configuring and routing your VENUE system inputs and outputs, see the D-Show Guide.

Chapter 3: Specifications

Audio and Electrical Specifications

DSI AES Digital Inputs

Parameter	Specifications	Limit	Units	Condition/ Comment
Connector (x4)	XLR3-female			
Format	AES 3 (AES/EBU)			
Termination	110		ohm	
Max cable length	100		meters	
Word length	24		bit	
Supported sample rate (with SRC)	32 to 96		kHz	SRC available per pair for AES inputs, globally for ADAT inputs.

DSI ADAT Digital Inputs

Parameter	Specifications	Limit	Units	Condition/ Comment
Connector (x1)	TOSLINK Optical			
Format	ADAT			8 Channel
Word length	24		bit	
Supported sample rates (with SRC)	44.1 to 48		kHz	SRC available globally for ADAT inputs.

Word Clock Out

Parameter	Specifications	Limit	Units	Condition/ Comment
Connector (x1)	BNC			
Format	Word clock out			
Source Impedance	75		ohm	
Drive level	2.5		V pk-pk	Into 75 ohm load.

LEDs

Lock LEDs (AES Inputs 1/2–7/8)

A green Lock LED per AES input pair indicates selection/ lock status as follows:

Lock LEDs

Lock LED	Indicates
Green (on)	AES inputs selected, and input locked
Unlit (off)	ADAT input selected, or AES selected but no valid signal detected

SRC Off LEDs (AES Inputs 1/2–7/8)

A red SRC Off LED per AES input pair indicates whether sample rate conversion is enabled as follows:

SRC LEDs

SRC LED	Indicates
Red (on)	SRC is disabled for that input pair
Unlit (off)	SRC is enabled for that input pair
Flashing	SRC was disabled, but was automatically re-enabled (input sample rate mismatch)

Source LEDs

Source LEDs indicate the current source input (green for AES, red for ADAT). Source is selectable on-screen.

Source LEDs

Source LEDs	Indicates
Green	AES inputs are the current source input
Red	ADAT inputs are the current source inputs

ADAT Lock LED

The single green ADAT Lock LED indicates lock status for the eight channels of ADAT input as follows:

ADAT Lock LED

ADAT Lock LED	Indicates
Green (on)	ADAT input is selected and locked to the corresponding ADAT input signal
Unlit (off)	AES input is selected, or ADAT selected but no valid signal detected

ADAT SRC Off LED

The single red ADAT SRC Off (sample rate conversion) LED indicates SRC status for the eight ADAT inputs as follows:

ADAT SRC LEDs

ADAT SRC LED	Indicates
Red (on)	SRC is disabled for ADAT inputs 1–8
Unlit (off)	SRC is enabled for ADAT inputs 1–8
Flashing	SRC was disabled, but was automatically re-enabled (input sample rate mismatch)