



DSO Option Card

for VENUE Systems

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Documentation Feedback

At Avid, we are always looking for ways to improve our documentation. If you have comments, corrections, or suggestions regarding our documentation, email us at techpubs@avid.com.

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Chapter 1: Overview

The DSO (Digital Stage Output) card provides eight channels of digital outputs to your VENUE system. The eight digital outputs are available via four two-channel AES/EBU XLR connectors along with an ADAT optical interface, providing simultaneous output to both connector types.

The DSO card is installed in the VENUE Stage Rack. Up to six DSO cards may be installed in a Stage Rack, providing a total of 48 channels of digital outputs.

For DSO card installation instructions, see Chapter 2, “Installing Option Cards.”

DSO Card Components

The DSO card package includes the following items:

- DSO card
- Mounting screws
- Avid Registration Information Card

DSO Card Capabilities and Features

- Eight channels of digital outputs via four two-channel AES/EBU XLR3-male connectors
- Eight channels of ADAT optical digital outputs via one ADAT TOSLINK connector
- Simultaneous output to both AES/EBU outputs and ADAT optical output
- Automatic muting for system protection
- Signal and Mute LEDs for each AES/EBU channel pair



DSO Card

System Requirements and Compatibility

Avid can only assure compatibility and provide support for hardware and software it has tested and approved.

For complete system requirements and a list of qualified computers, operating systems, hard drives, and third-party devices, visit:

www.avid.com/compatibility

Registration

Review the enclosed Registration Information Card and follow the instructions on it to quickly register your purchase online. By registering, you become eligible to receive the following:


- Technical support information
- Software update and upgrade notices
- Hardware warranty information


Conventions Used in This Guide


All VENUE guides use the following conventions to indicate menu choices and key commands:


Convention	Action
File > Save Session	In Pro Tools, choose Save Session from the File menu
Options > System Config	In the VENUE 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 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 this or other guides.*

About www.avid.com

The Avid website (www.avid.com) is your best online source for information to help you get the most out of your system. The following are just a few of the services and features available.

Product Registration Register your purchase online.

Support and Downloads Contact Customer Success (technical support); download software updates and the latest online manuals; browse the Compatibility documents for system requirements or search the online Knowledgebase.

Training and Education Study on your own using courses available online or find out how you can learn in a classroom setting at a certified Avid training center.

Products and Developers Learn about Avid products; download demo software or learn about our Development Partners and their plug-ins, applications, and hardware.

News and Events Get the latest news from Avid or sign up for a product demo.

Pro Tools Accelerated Videos Watch the series of free tutorial videos. Accelerated Videos are designed to help you get up and running with Pro Tools and its plug-ins quickly.

Live Sound Webinars Watch free tutorial videos and VENUE-specific webinars to learn from the experts.

To learn more about these and other resources available from Avid, visit our website (www.avid.com).

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 slots 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.

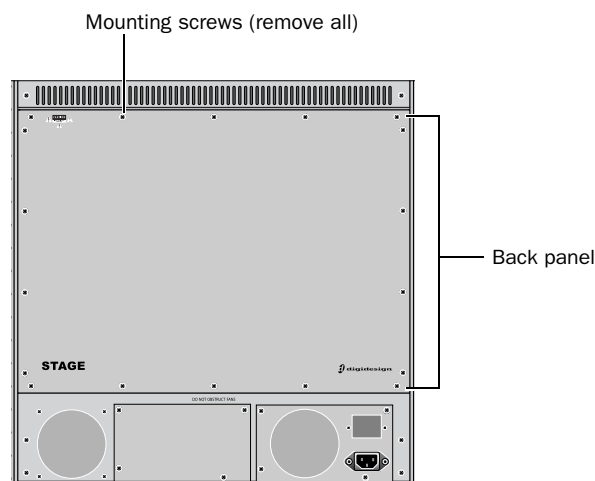
Installing Option Cards in the Stage Rack

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

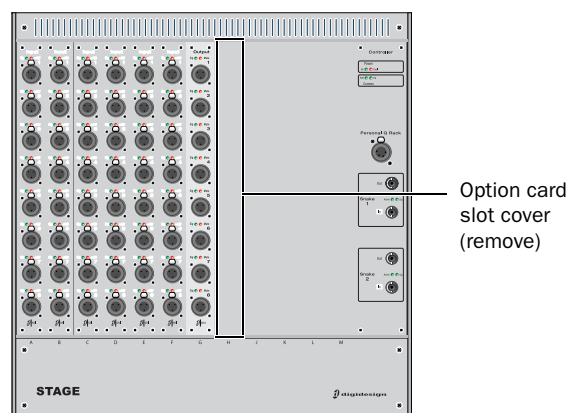
- 5 On the front panel of the Stage Rack, locate the slot where you want to install the option card.

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.

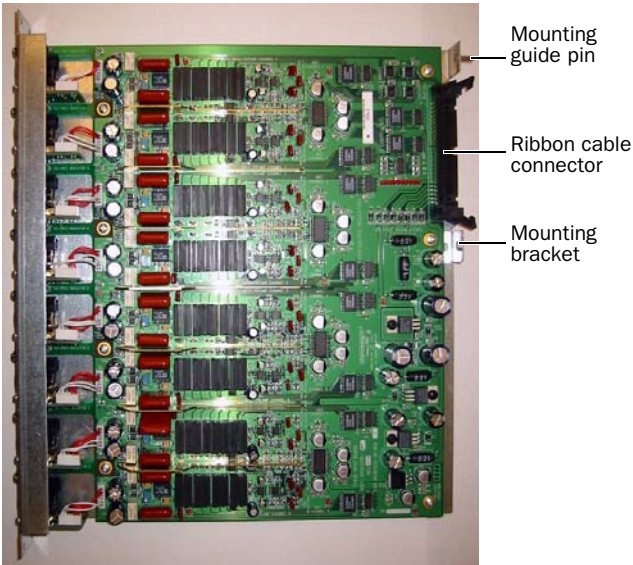
Up to six input cards of either type can be installed in slots A–F, and up to six output cards of either type can be installed in slots G–M.

- 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.



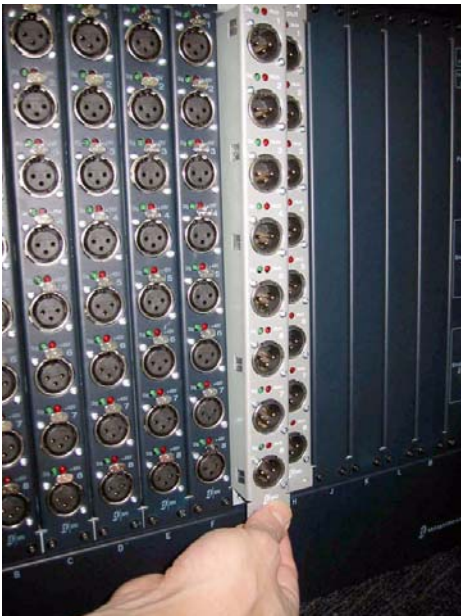
Stage Rack front panel

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

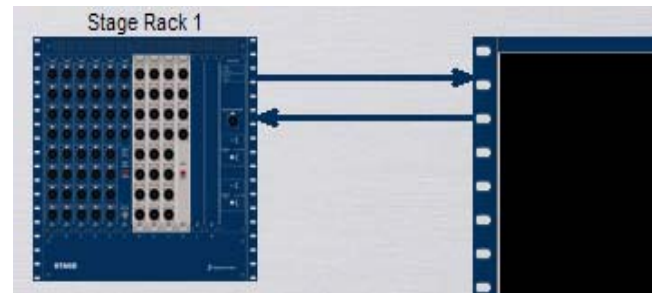
Confirming Installation

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 > 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 DSO card

 For more information on configuring and routing inputs and outputs, see the main VENUE guide that came with your system.

Chapter 3: Specifications

Audio and Electrical Specifications

DSO Digital Outputs

Parameter	Specifications	Limit	Units	Condition/ Comment
Connector (x4)	XLR3-Male			
Format	AES3 (AES/EBU)			
Word length	24		bit	
Impedance	110		ohm	
Level	~3.6		Vpp	max, i.e., +/- 1.8V
Sample rate	48		kHz	No sample rate conversion
Channel status info	Pro Audio 48k, no emphasis			
Dithering	No			

DSO ADAT Digital Output

Parameter	Specifications	Limit	Units	Condition/ Comment
Connector (x1)	TOSLINK Optical			
Format	ADAT			8 Channel
Word length	24		bit	
Sample rates	48		kHz	No sample rate conversion
Dithering	No			

LEDs

Signal LEDs (AES 1/2-7/8)

One green and one red Signal LED per output pair indicate output signal status as follows:

Sig LEDs

Sig LEDs	Indicates
Red	Hardware mute (automatically during power up and power down, or via Mute all Stage Output action)
Green	Signal present

Appendix A: Compliance Information

Environmental Compliance

Disposal of Waste Equipment by Users in the European Union



This symbol on the product or its packaging indicates that this product must not be disposed of with other waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city recycling office or the dealer from whom you purchased the product.

Proposition 65 Warning

⚠ *This product contains chemicals, including lead, known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.*

Perchlorate Notice

This product may contain a lithium coin battery. The State of California requires the following disclosure statement: "Perchlorate Material – special handling may apply, See www.dtsc.ca.gov/hazardouswaste/perchlorate."

Recycling Notice



EMC (Electromagnetic Compliance)

Avid declares that this product complies with the following standards regulating emissions and immunity:

- FCC Part 15 Class B
- EN55103-1 E3
- EN55103-2 E3
- AS/NZS CISPR Class B
- CISPR 22 Class B

FCC Compliance for United States

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, Avid, 2001 Junipero Serra Boulevard
Daly City, CA 94014-3886, USA
650-731-6300

declare under our sole responsibility that the product
DSO 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.

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

Australian Compliance



Canadian Compliance

This Class A digital apparatus complies with Canadian ICES-003

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

CE Compliance

(EMC and Safety)



Avid is authorized to apply the CE (Conformité Européenne) mark on this compliant equipment thereby declaring conformity to EMC Directive 89/336/EEC and Low Voltage Directive 2006/95/EEC.

Safety Compliance

Safety Statement

This equipment has been tested to comply with USA and Canadian safety certification in accordance with the specifications of UL Standards: UL60065 7th /IEC 60065 7th and Canadian CAN/CSA C22.2 60065:03. Avid Inc., has been authorized to apply the appropriate UL & CUL mark on its compliant equipment.

Warning



Important Safety Instructions

- 1) Read these instructions.
 - 2) Keep these instructions.
 - 3) Heed all warnings.
 - 4) Follow all instructions.
 - 5) Do not use this equipment near water.
 - 6) Clean only with dry cloth.
 - 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
 - 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other equipment (including amplifiers) that produce heat.
 - 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
 - 10) Protect power cords from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the equipment.
 - 11) Only use attachments/accessories specified by the manufacturer.
 - 12) For products that are not rack-mountable: Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the equipment. When a cart is used, use caution when moving the cart/equipment combination to avoid injury from tip-over.
 - 13) Unplug this equipment during lightning storms or when unused for long periods of time.
 - 14) Refer all servicing to qualified service personnel. Servicing is required when the equipment has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the equipment, the equipment has been exposed to rain or moisture, does not operate normally, or has been dropped.
 - 15) For products that are a Mains powered device:
The equipment shall not be exposed to dripping or splashing and no objects filled with liquids (such as vases) shall be placed on the equipment.
- Warning!** To reduce the risk of fire or electric shock, do not expose this equipment to rain or moisture.
- 16) For products containing a lithium battery:
CAUTION! Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.
 - 17) The equipment shall be used at a maximum ambient temperature of 40° C.



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Technical Support (USA)
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Product Information
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