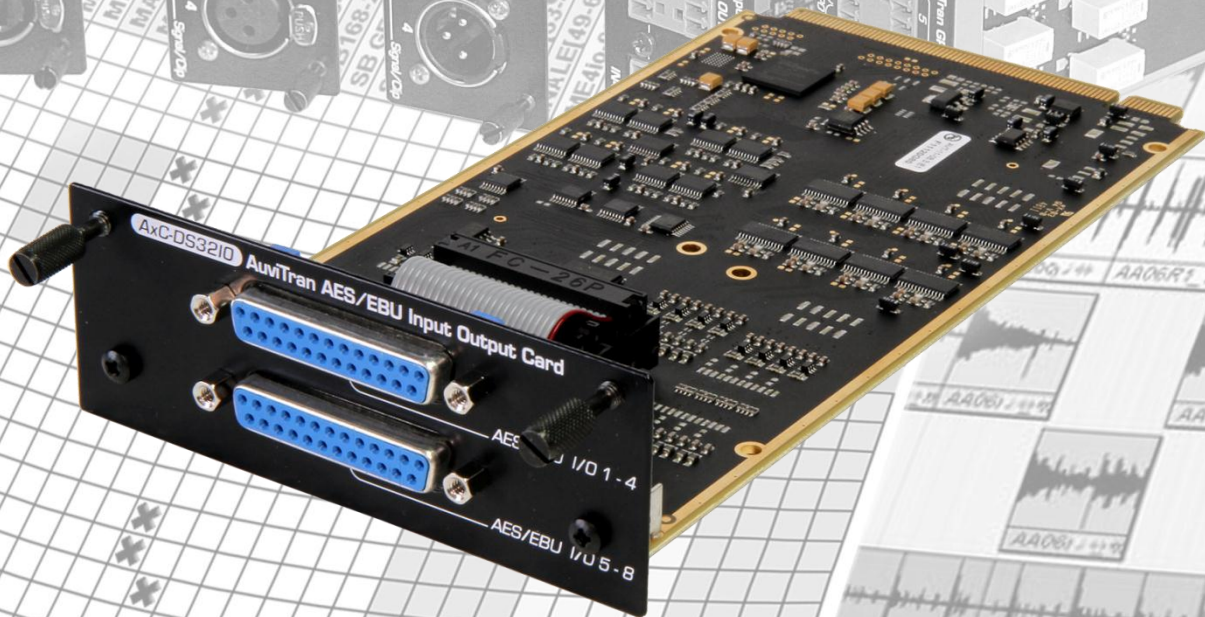


AuviTran Audio ToolBox AxC-DS32IO Instruction Manual

Multichannel AES/EBU Interface Card



for Audio ToolBox Platform





WARNING

Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, short-circuiting, damages, fire or other hazards. These precautions include, but are not limited to, the following:

PRECAUTIONS

- Do not apply excessive pressure on connectors or any other part of the board. Do not touch the metallic sharp parts (pins) of the product.
- This product is electrostatic sensitive; make sure you check this before touching or using it.
- The disconnect devices of the Audio ToolBox unit are the appliance inlet of the auxiliary power supply and the appliance inlet on the rear side of the unit. These must be easily reachable.
- To prevent electric shock, unplug the unit before handling. The achievement of other operations not mentioned in this document is prohibited. Repairs can be performed only by a technician trained and qualified.
- Each connection must be Safety Extra Low Voltage kind (SELV), and must stay inside buildings.

LIMITATION OF LIABILITY

In no case and in no way, the provider of this Product (AuviTran, the distributor or reseller, or any other party acting as provider) shall be liable and sued to court for damage, either direct or indirect, caused by and to the user of the board and which would result from an improper installation or misuse of the Product. "Misuse" and "improper installation" mean installation and use not corresponding to the instructions of this manual.

Please note that graphics given in this manual (drawings and schemes) are only examples and shall not be taken for a real vision of your own equipment configuration.

AuviTran is constantly working on the improvement of the products. For that purpose, the products functionalities are bound to change and be upgraded without notice. Please read carefully the User's manual as the new functionalities will be described therein.

TRADEMARKS

All trademarks listed in this manual are the exclusive property of their respective owners. They are respected "as is" by AuviTran. Any use of these trademarks must receive prior approval of their respective owners. For any question, please contact the trademark's owner directly.

COPYRIGHT

The information in this manual is protected by copyright. Therefore, reproduction, distribution of whole or part of this manual is strictly forbidden without the prior written agreement of AuviTran.

AUVITRAN WEBSITE / MORE INFORMATION

Please visit our website for any question of further inquiry concerning our product range. Updates will also be posted when available.

<http://www.auvitran.com>

PACKAGE CONTAINS

- 1 AxC-DS32IO card + Thumbscrews

TABLE OF CONTENTS

PRECAUTIONS.....	2
LIMITATION OF LIABILITY.....	3
TRADEMARKS	3
COPYRIGHT.....	3
AUVITRAN WEBSITE / MORE INFORMATION.....	3
PACKAGE CONTAINS	3
1 WELCOME!.....	5
2 OVERVIEW	5
3 TECHNICAL SPECIFICATIONS	6
4 FRONT PANEL / WIRING	7
5 CARD INSERTION / EXTRACTION.....	8
6 SOFTWARE REMOTE CONTROL	9
1-1 DEVICE CONTROL.....	9
1-2 DEVICE SETUP	10
7 FREQUENTLY ASKED QUESTION	11

1 WELCOME!

Thank you for purchasing AuviTran's Audio Toolbox AxC-DS32IO extension card. We hope you will enjoy using it.

You will find herewith the necessary instructions to use your product. Please read them carefully as misuse of this device might cause serious damage to you and your environment.

2 Overview

AxC-DS32IO card provides high count AES/EBU digital inputs and outputs interface to the AuviTran Audio ToolBox platform.

AxC-DS32IO features eight stereo AES/EBU digital inputs plus eight stereo AES/EBU digital outputs on two D-Sub 25 pins connectors (four AES/EBU stereo inputs and stereo outputs on each D-Sub)

The AxC-DS32IO offers high end audio professional feature. All inputs can be individually used with on board high precision "SRC" (Sample Rate Converter) for solving multi sampling rate input frequencies and synchronisation issues.

Clock Synchronization for the AuviTran Audio Toolbox can be selected from each input.

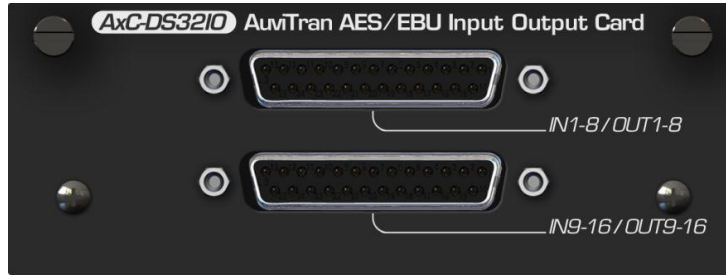
Combined with other AuviTran Audio ToolBox cards, the AxC-DS32IO card opens exciting possibilities to the professional audio systems:

- EtherSound – AES/EBU converter
- MADI – AES/EBU converter...
- DANTE – AES/EBU converter...

3 Technical Specifications

General	
Size	200 mm x 100 mm x 40 mm – Format AuviTran Audio ToolBox platform cards
Power Supply	+12V / +3.3V Through AuviTran Audio ToolBox backplane
Storage: Temp / Humidity	- 5°C to 70°C / 0% to 95% (non-condensing)
Operating: Temp / Humidity	0 °C to 50°C / 5% to 90% (non-condensing)
Connectors	2 x Female DB25 connectors : 4 Stereo AES/EBU inputs and 4 Stereo AES/EBU Outputs on each DB25
Audio Inputs	
Number of inputs	8 Stereo AES/EBU digital inputs routed through the AuviTran Audio ToolBox backplane from the other cards
Audio Inputs Specifications	
Sampling Frequency	44.1 kHz / 48 kHz
Sampling resolution	24 bits
Input Impedance	110Ω
Input Specification	AES balanced
Clock Synchro Sources	All AES Inputs
SRC Sample Rate Converter	Asynchronous SRC available on each input (individually on / off)
SRC Specifications	-140dB THD+N / Frequency Range 8 kHz - 192 kHz
Audio Outputs	
Number of outputs	8 AES/EBU Stereo digital outputs routed through the AuviTran Audio ToolBox backplane from the other cards
Audio Outputs Specifications	
Sampling Frequency	44.1 kHz / 48 kHz
Sampling resolution	24 bits
Output Impedance	110Ω
Output Specification	AES balanced on DB25 connector (RS422 Level)
Control and Monitoring Environment	
Audio ToolBox platform	AxC-DS32IO is one the cards for the AuviTran Audio ToolBox platform
AVS-ESMonitor	AVS-ESMonitor enables to remotely set, control and monitor an EtherSound network and provides enhanced control pages to manage the AxC-DS32IO card specific parameters.
OS Supported	Windows 8 / Seven / Vista / XP for 32 or 64 bit versions

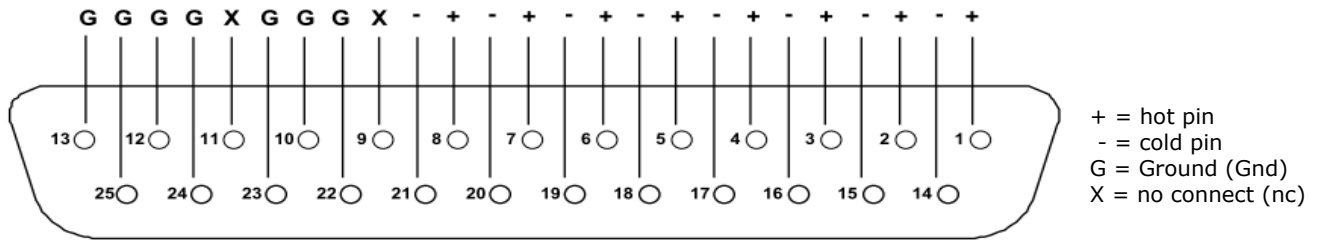
4 FRONT PANEL / Wiring



AxC-DS32IO front panel with 2 x DB25 FEMALE

AES/EBU WIRING (YAMAHA Compatible)

DB25 FEMALE FRONT SIDE or DB25 MALE SOLDER SIDE (for CABLE)



TOP CONNECTOR = INPUT 1-8 / OUTPUT 1-8

DB25 Pin	AES Connection
1	IN 1 / 2 +
2	IN 3 / 4 +
3	IN 5 / 6 +
4	IN 7 / 8 +
5	OUT 1 / 2 +
6	OUT 3 / 4 +
7	OUT 5 / 6 +
8	OUT 7 / 8 +
9	nc
10	Gnd
11	nc
12	Gnd
13	Gnd

DB25 Pin	AES Connection
14	IN 1 / 2 -
15	IN 3 / 4 -
16	IN 5 / 6 -
17	IN 7 / 8 -
18	OUT 1 / 2 -
19	OUT 3 / 4 -
20	OUT 5 / 6 -
21	OUT 7 / 8 -
22	Gnd
23	Gnd
24	Gnd
25	Gnd

BOTTOM CONNECTOR = INPUT 9-16 / OUTPUT 9-16

DB25 Pin	AES Connection
1	IN 9 / 10 +
2	IN 11 / 12 +
3	IN 13 / 14 +
4	IN 15 / 16 +
5	OUT 9 / 10 +
6	OUT 11 / 12 +
7	OUT 13 / 14 +
8	OUT 15 / 16 +
9	nc
10	Gnd
11	nc
12	Gnd
13	Gnd

DB25 Pin	AES Connection
14	IN 9 / 10 -
15	IN 11 / 12 -
16	IN 13 / 14 -
17	IN 15 / 16 -
18	OUT 9 / 10 -
19	OUT 11 / 12 -
20	OUT 13 / 14 -
21	OUT 15 / 16 -
22	Gnd
23	Gnd
24	Gnd
25	Gnd

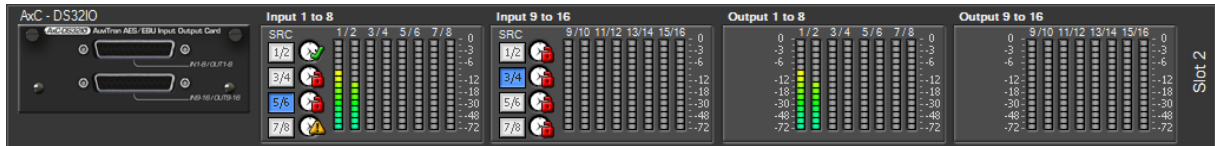
5 CARD Insertion / Extraction

Please refer to AuviTran Audio Toolbox AVBx3 or AVBx7 rack user's manual in order to know how to insert/extract your card properly.

6 Software Remote Control

1-1 Device control

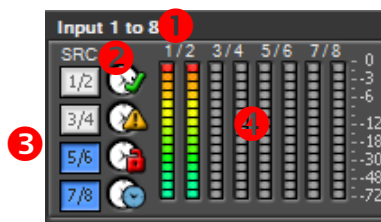
AuviTran's **AVS ESMonitor** software allows you to remote control your Audio Toolbox device, and thus your AxC-DS32IO. For general AVBx3 or AVBx7 rack remote control features, please refer to AuviTran Audio Toolbox AVBx3 or AVBx7 rack user's manual.



AxC-DS32IO control interface

AES STEREO INPUT

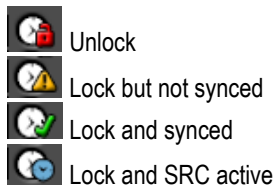
Each block of 4 stereo input channels has its own parameters that can be set individually:



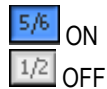
Channel setup

❶ Channel setup indicator

❷ AES input status:



❸ SRC status:

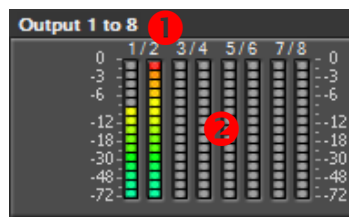


❹ Channel meter (dBFS scale)

NOTE : If AES input clock is selected as clock master and SRC is selected on the same AES Input, in this case, as system is synchronous to this input, SRC is not necessary and so, it is bypassed. (but SRC remains selected)

AES STEREO OUTPUT

Each block of 4 stereo output channels has its own feedback status:



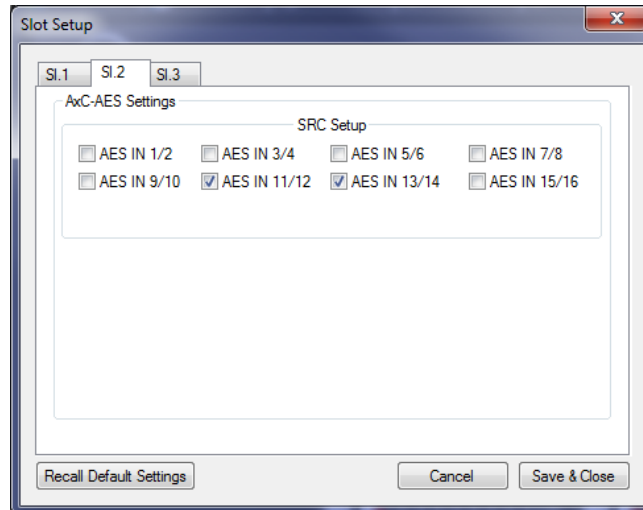
Channel setup

❶ Channel setup indicator

❷ Channel meter (dBFS scale)


1-2 Device setup (SRC on/off)

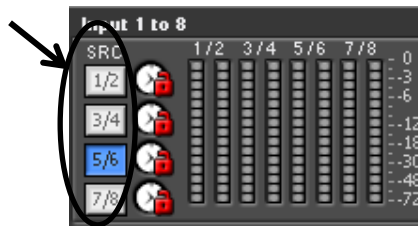
Advanced parameters for AxC-DS32IO device can be defined using dedicated setup slot window (:



AxC-DS32IO setup window

SRC Setup can be set ON (Checked) /OFF (Unchecked) for each stereo AES input. In sample window above, only AES Input 11/12 and AES Input 13/14 has SRC set to ON.

SRC can also be enabled / disabled by clicking on the SRC status button 



7 Frequently Asked Question

- AVS-ESMonitor how to use rotary control?



Rotary control layout

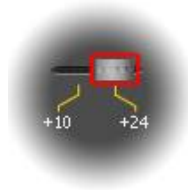
Rotary control is designed to be easily controlled with a mouse. First way to interact with control is to left-click on control center and:

- Move the mouse while holding click to the top-right corner (red arrow) to increase value.
- Move the mouse while holding click to the bottom-left corner (blue arrow) to decrease value.
- Other mouse movement will have no action.

Second way to interact with the control is to place mouse over and

- Use the mouse-wheel up and down to respectively increase or decrease value more precisely.

- AVS-ESMonitor how to use slide control?



Slider control layout

Slider control is designed to be intuitively controlled with a mouse. Place mouse cursor over knob (red zone), left click and while holding mouse clicked, slide to desired value and released left click.