AxC-ADSP

ASRC and DSP card on 64x64 audio channels for AuviTran Audio ToolBox

AxC-ADSP Overview

Using one slot of either ToolBox, AxC-ADSP can acts as a Digital Signal Processing (DSP) card or as an Asynchronous Sample Rate Conversion (ASRC) card.

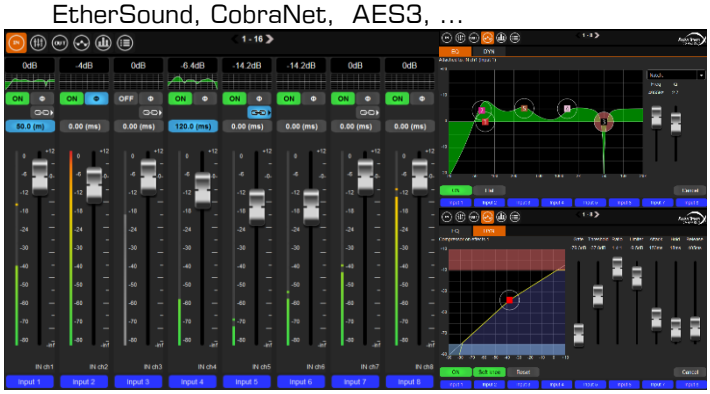
DSP adds in ToolBox audio processing while converting at same time your Dante, AES67, Madi, EtherSound, CobraNet, AES3 … Analog worlds.

ASRC enables to exchange up to 64x64 audio channels between an AxC-Card working with a different frequency or a different clock domain than the other Audio ToolBox interface cards.

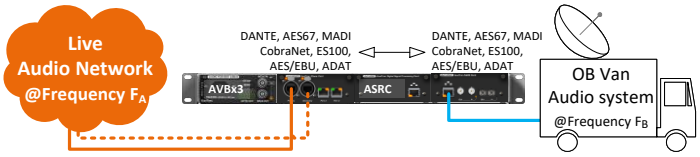
AxC-ADSP Applications

AxC-ADSP is a compact and efficient solution for processing audio channels between different audio networks and audio interfaces or for exchanging audio signal operating at different frequencies.

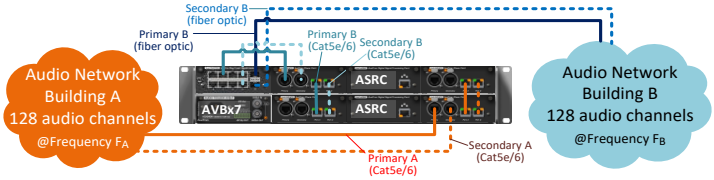
- One box to Equalize, Mix, delay inputs coming from any kind of audio interface: Madi, AES67, Dante, EtherSound, CobraNet, AES3, …



- Exchanging audio signals from different types of interface (Dante, AES67, MADI, AES3, …) by resynchronizing different clock sources between the digital audio system of a stadium, a theatre, a concert Live and radio or TV broadcasters



- To simply and quickly exchange a large number of audio channels between two different audio worlds without asking to synchronize them together



Mechanical Specifications

200 x 100 x 40 mm: AuviTran Audio ToolBox platform AxC card format

Key Features

- In DSP mode, the AxC-ADSP can process 64 inputs from different interface cards and generate 64 different processed audio outputs to other cards:
  - 64 mixers with 64 audio inputs
  - 128x 8-band Equalizations
  - 128x Limiter/compressors
  - 128x 2.7s of delay for audio Inputs/Outputs
  - Quick scenes management to change DSP processing
  - HTML5/Web2.0 universal interface
  - W10, Mac OS, IOS, Android, Linux compatible
- In ASRC mode, the AxC-ADSP card enables to exchange 128 I/O audio channels at 2 different frequencies. It acts as an ASRC interface between one of the audio network or the digital interface card and any other Audio/Network cards of an AVBx3 or AVBx7 Audio ToolBox.
- 3x AxC-ADSP cards can be used in a single AVBx7 box to manage the audio exchanges of 4x 128 I / O audio signals at 4 different audio frequencies in ASRC mode. Each clock domain can be connected to different digital audio worlds via interface cards such as Dante, AES67, CobraNet, EtherSound, Madi, AES / EBU, ADAT…

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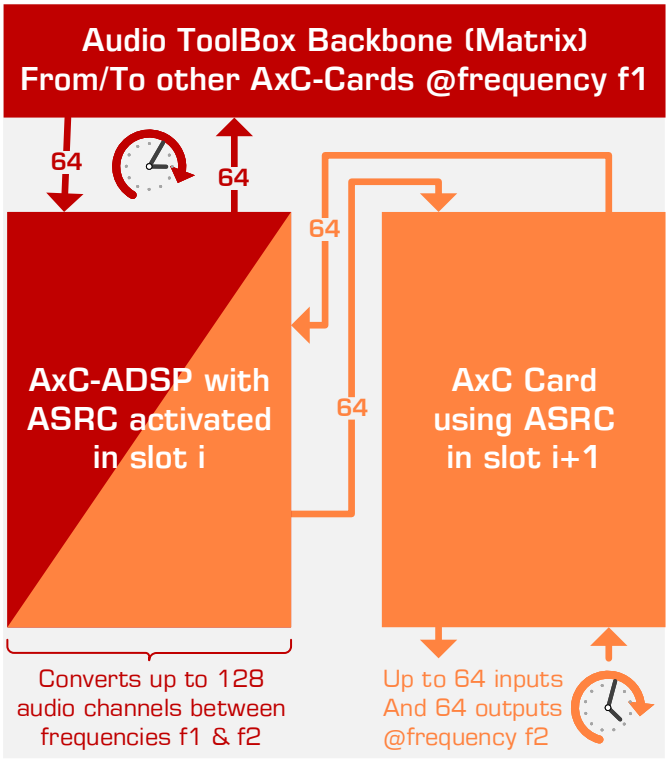
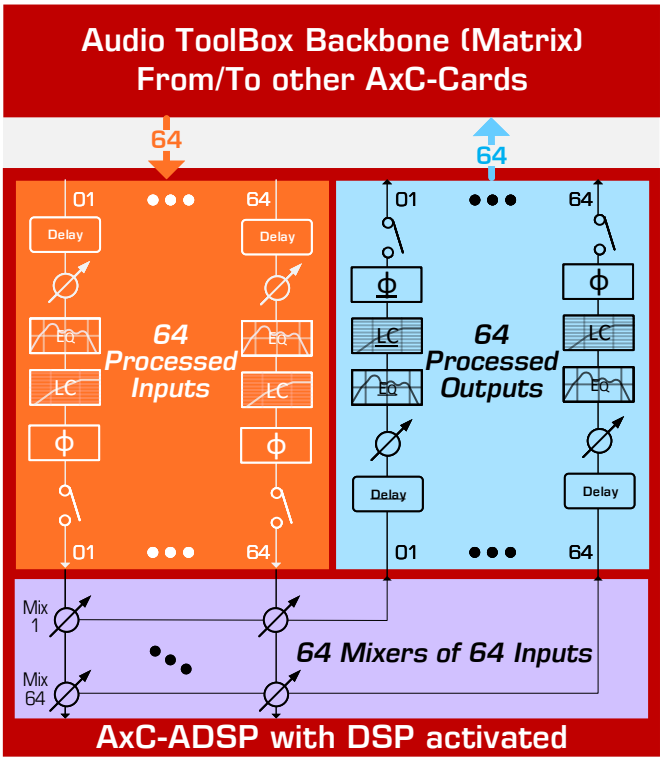
Audio flow in ASRC Mode



Audio flow in DSP Mode



Technical Specifications

General	
Size	200 mm x 100 mm x 40 mm - AuviTran Audio ToolBox platform format
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)
Connector(s)	1x RJ45 connector for direct control of Audio ToolBox
Processing Specifications	
CPU (Management)	Dual Core ARM processor @ 204MHz, 192KB SRAM, 32MB flash, 8MB SDRAM
DSP (Processing)	8x 32bits Sigma DSP @ 295MHz with integrated 139dB SNR ASRC for up to 2x 64 channels
FPGA (Audio Mixing)	Dedicated FPGA to process 64 mixers on 64 inputs at single speed 44.1kHz / 48kHz or 32 mixers on 32 inputs at double speed 88.2kHz / 96kHz
SDRAM (Delays)	Dedicated SDRAM for 350s of audio delays shareable for 64 inputs and 64 outputs at 48kHz or 175s of audio delays shareable for 32 inputs and 32 outputs at 96kHz
ASRC Specifications	
Number of channels	64 inputs + 64 outputs channels at single speed (44.1kHz or 48kHz) or 32 inputs + 32 outputs channels at double speed (88.2kHz or 96kHz)
THD+N(dB)	-130dB for an ASRC 48kHz ⇔ 96kHz / -128dB for an ASRC 48kHz ⇔ 48kHz
Integration Environment	
Audio ToolBox platform	AxC-ADSP can be inserted in any slot of any AuviTran Audio ToolBox platform. Up to 3x AxC-ADSP can be inserted in an AVBx7 audio ToolBox frame for ASRC
AVS-Monitor	AVS-Monitor enables to remotely set, control and monitor a Dante or an EtherSound network and provides enhanced control pages to manage the AxC-ADSP card specific parameters
Supported OS	Windows 10/8/7, Mac OS, IOS, Android, Linux for AxC-ADSP control via any web interface Windows 10/8/7/Vista/XP for 32 or 64-bit versions for Audio ToolBox controls via AVSMonitor

Part number

AxC-ADSP	ASRC and DSP card on up to 64x64 channels for AuviTran Audio ToolBox

V2-201706

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Specifications and appearance are subject to change without notice