

SONORUS

AUDIO/O

MODULAR/8

MASTERING QUALITY MODULAR CONVERTER SYSTEM

Product Information Sept. 1999

Overview

The Modular/8 High Resolution Modular Audio Interface is a high quality, professional modular audio interface for audio professionals demanding the highest possible quality. This rack mount unit is remotely controlled by STUDI/O or can also be used as a stand-alone unit. The modularity of this unit allows for custom configurations based on specialized audio interface requirements.



Feature Set

The quality and flexibility of Modular/8 makes it a great A/D D/A solution for broadcasters, DVD mastering, recording studios and audio post-production houses.

- Rugged internal power supply. This unit accepts both 110 and 220 voltages for worldwide use.
- Fully tested for CE compliance for guaranteed safety and stability.
- All module audio connections are made using high quality balanced XLR type connectors.
- Clear and easy to use front panel controls.
- Extremely high quality A/D and D/A using the latest generation in converter technology.
- High common mode rejection Balanced Input circuitry on all Analog Input modules for optimum rejection of power line hum, RF interference, voltage drops and other externally generated noise commonly encountered with long audio cable runs.
- All Analog Balanced Output circuitry incorporates the advanced "Twin Servo Drive" output stage for maximum output signal balance ratio performance, even under adverse asymmetrical loads.

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- DVD Ready. Support for high Sample Rates such as 96 kHz at 24-bit resolution.
- Fits into standard 2 unit 19" rack.
- Local control from the front panel (in stand-alone mode).
- Remote control from STUDI/O host software (coming soon).
- Selectable Monitoring of all 8 inputs and outputs.
- Very comprehensive choice of Sync Sources, including lock to Video Blackburst and AES/EBU .
- Very low jitter and calibrated internal clock.
- 8 channel 24 bit 96kHz directly to computer via STUDI/O and S/MUX.

Technical Specifications

Modular/8

Dimensions (WxDxH): 485 mm x 250 mm x 87 mm (19" 2U height)

Parameter	Conditions	Value	Unit
Weight	max. fitted with 8 I/O modules	5.2	kg
Power consumption	max. fitted with 8 I/O modules	22	VA
Internal Sampling Frequency Accuracy	25° Celsius	+/- 5	PPM
Internal Sampling Frequency Accuracy	0° to 50° Celsius	+/- 25	PPM
Internal Sampling Frequency Jitter	Measured on ADAT output	< 5	ns p-p

96kHz Analog Input Module

Parameter	Conditions	Value	Unit
Resolution		24	Bits
Max. Sampling Rate		96	kHz
Dither and Noise Shaping		16/18 /20	bits
Max. Input Level:			
- Calibrated	Differential	+24	dBu
- Custom Min.	Differential	+4	dBu
- Custom Max.	Differential	+25	dBu
Sampling Rate 48 kHz			
Dynamic Range	A-weighted	115	dB(A)

	Unweighted	113	dB
THD+N	1 kHz @ 0 dBFS	-102	dB
	1 kHz @-20 dBFS	-91	dB
Frequency Response	20Hz-20kHz	±0.1	dB
Sampling Rate 96 kHz			
Dynamic Range	A-weighted	115	dB(A)
	Unweighted	110	dB
THD+N	1 kHz @ 0 dBFS	-102	dB
	1 kHz @-20 dBFS	-91	dB
Frequency Response	20Hz-20kHz	±0.1	dB
Input Impedance	Differential	>15	kOhms
Common Mode Rejection		>50	dB
Interchannel Isolation (Crosstalk)	1kHz	> 110	dB

96kHz Analog Output Module

Parameter	Conditions	Value	Unit
Resolution		24	Bits
Max. Sampling Rate		96	kHz
Max. Output Level:			
- Calibrated	Differential	+24	dBu
- Custom Min.	Differential	+0	dBu
- Custom Max.	Differential	+26	dBu
Dynamic Range	A-weighted	111	dB(A)
	Unweighted	108	dB
THD+N	1 kHz @ 0 dBFS	-95	dB
	1 kHz @-20 dBFS	-87	dB
Frequency Response	20Hz-20kHz	±0.1	dB
Input Impedance	Differential	<50	kOhms
Common Mode Rejection		>40	dB
Interchannel Isolation (Crosstalk)	1kHz	120	dB

48kHz Analog Input Module

Parameter	Conditions	Value	Unit
Resolution		24	Bits
Max. Sampling Rate		48	kHz
Max. Input Level			

- Calibrated	Differential	+24	dBu
- Custom Min.	Differential	+4	dBu
- Custom Max.	Differential	+25	dBu
Dynamic Range	A-weighted	100	dB(A)
	Unweighted	97	dB
THD+N	1 kHz @ 0 dBFS	-88	dB
	1 kHz @ -20 dBFS	-77	dB
Frequency Response	20Hz-20kHz	±0.1	dB
Input Impedance	Differential	>20	kOhm s
Common Mode Rejection		>40	dB
Interchannel Isolation (Crosstalk)	1kHz	>110	dB

48kHz Analog Output Module

Parameter	Conditions	Value	Unit
Resolution		24	Bits
Max. Sampling Rate		48	kHz
Max. Output Level			
- Calibrated	Differential	+24	dBu
- Custom Min.	Differential	+0	dBu
- Custom Max.	Differential	+26	dBu
Dynamic Range	A-weighted (dithered 24 bits)	103	dB(A)
	Unweighted (dithered 24 bits)	99	dB
	Unweighted (Digital Mute)	106	dB
THD+N	1 kHz @ 0 dBFS	-97	dB
	1 kHz @ -20 dBFS	-83	dB
Frequency Response	20Hz-20kHz	±0.1	dB
Input Impedance	Differential	<50	kOhm s
Common Mode Rejection		>40	dB
Interchannel Isolation (Crosstalk)	1kHz	110	dB

AES-EBU Input Module

Parameter	Conditions	Value	Unit
Without SRC			
Resolution		24	Bits
Max. Sampling Rate		96	kHz
With SRC			
Resolution		20	Bits
Max. Sampling Rate		48	kHz
Input Sampling Rate Converter Range	Upsampling 1:5 max.	8-48	kHz
Input Sampling Rate Converter Range	Downsampling 1:0.85 max.	37-48	kHz
Dynamic Range		120	dB
THD+N	1 kHz @ 0 dBFS	<-100	dB
Input Impedance	Differential	110	Ohms

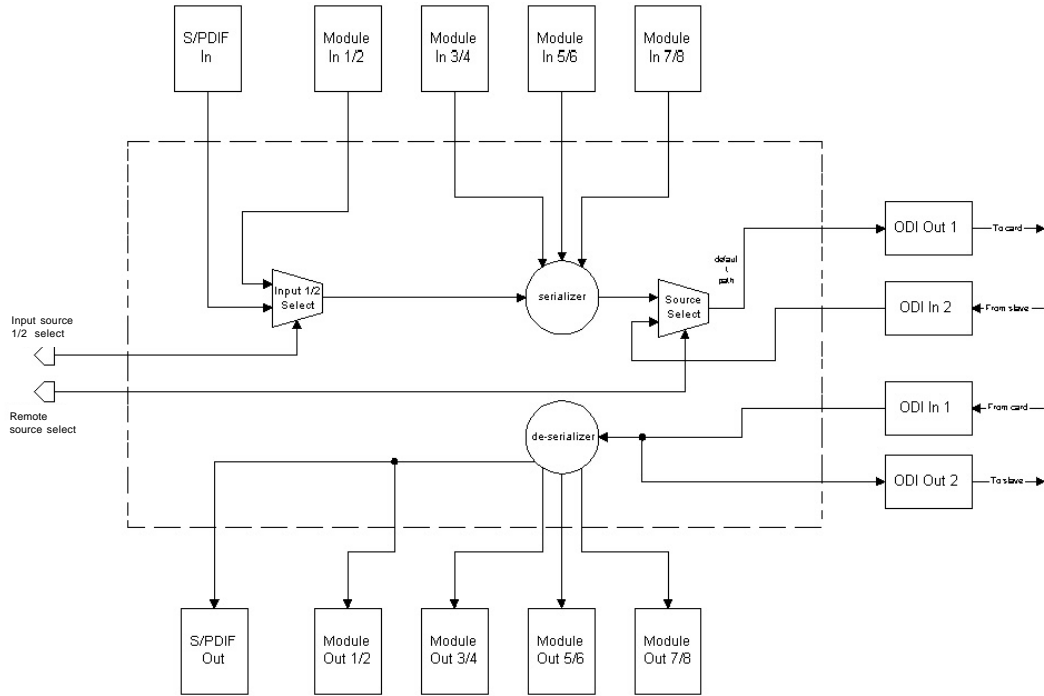
AES-EBU Output Module

Parameter	Conditions	Value	Unit
Resolution	Without SRC	24	Bits
Max. Sampling Rate	Without SRC	96	kHz
Output Impedance	Differential	110	Ohms

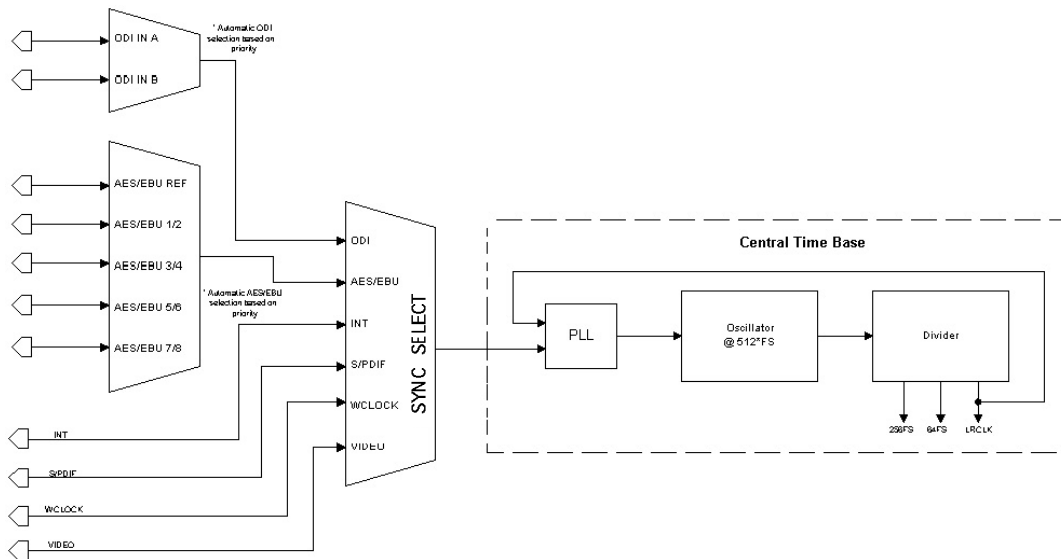
Note: All specifications subject to change without notice.

Flow Chart Diagrams

Modular/8 Audio Flow Chart



Modular/8 Synchronization Flow Chart



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