

Audio Engine Specifications

Audio Processor

General	32 bit floating point processing, 24 bit mantissa Lone SHARC™ card: 1 Analog Devices' SHARC™ DSP SharcAttack card: 7 Analog Devices' SHARC™ DSPs 8 MByte DRAM Two per engine
Number of processor cards	User selectable 32k, 44.1k or 48k
Internal sampling rate	AES/EBU, S/PDIF; 24kHz to 56kHz
External clock input	2mSec constant from all inputs to all outputs.
Latency	Actual - 19" w x 15" d x 12 ¼" h (7RU) (48 ¼ cm w x 38 ¼ cm d x 31 cm h)
Dimensions	Shipped - 24" w x 19 ½" d x 18" h (61 cm w x 49 ½ d x 45 ¾ h)
Weight	Fully loaded - 45 lbs.
Power	100 watts max

Control

GPI Inputs	15 inputs,+5 to ground
GPI Outputs	(AE-C2) 15 dry contact relays,500ma (AE-C6) 15 solid state relays, 500ma
Functionality	User definable
Serial ports	(AE-C2) 3 RS-422, 1 RS-232 (AE-C6) 6 RS-422, 2 switchable RS422/RS232
External Clock Sync	1 AES Master out, 1 AES Slave input

Audio I/O

Number of I/O cards	Up to 8; either analog or digital. Inputs and outputs are software configurable as mono or stereo
Number of audio channels	Up to 128 inputs and 128 outputs
Number of busses	up to 9 program, up to 24 mix-minus
Connectors	DB 25; fan out to XLR, punch block, Krone block or bare ends (optional)

Analog

Number of Channels	6 stereo inputs and 6 stereo outputs, a stereo pair can be broken into two mono channels
Balanced/unbalanced	User selectable
Input line level @ -20 dBFS	User definable via software -20 to +8 dBu (no physical trim pots)
Line input impedance	50k ohms balanced or 25k ohms unbalanced; bridging
Conversions	24 bit with 128 x oversampling
Common mode rejection ratio	-90 dB @ 1 kHz
THD+N @ -20 dBFS; 0 dB input	.012%
Reference level (relative to -20 dBFS)	user definable -10 to +8
Frequency response (20 Hz to 20 kHz)	+/- .1 dB
Maximum input & output level	+24 dB
Output impedance	60 ohms
Dynamic range	102 dB

Digital

Number of channels	8 stereo inputs and 8 stereo outputs, a stereo pair may be broken into 2 mono channels
Digital input format	AES/EBU and S/PDIF (selectable by channel)
Digital sampling rates	24 bit sample rate converters provided on all inputs. Autodetect from 24kHz to 96kHz
Precision	24 bits input and output
Output	32k, 44.1k or 48k - AES/EBU or SPDIF (user selectable)
Input impedance	110 ohms, transformer isolated
Output impedance	110 ohms, transformer isolated
THD+N @ -20 dBFS; 24 bits	.0002%
Frequency response (20 Hz to 20 kHz)	+/- .1 dB
Dynamic range	140 dB
Other	Subcode detection (audio/no audio, emphasis, copy protection, mono/stereo) Subcode generation (control of all channel status bits)

Network I/O

Number of audio channels	500 channels, 24 bit sample data
Communication format	Dual Gigbit ethernet rings, two paths between any two engines
Number of engines	24 engines maximum in a ring
Connectors	MT-RJ connectors with multimode fiber cable
Cable length	maximum of 600 feet of fiber between engines using multimode fibre (10 km with optimal single mode fibre and lasers)

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**** Specifications are subject to change ****

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