

Audio Engine Specifications

Audio Processor

General

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

Control

GPI Inputs	+5 to ground, 15 on engine, 12 on each control surface
GPI Outputs	Dry contact relays, 15 on engine, 12 on each control surface
Functionality	User definable
Serial ports	3 RS-422, 1 RS-232

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 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)	+/- .2 dB
Maximum output level	+22 dB
Output impedance	60 ohms
Dynamic range	102 dB

Digital

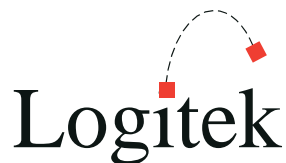
Number of channels	8 stereo inputs and 8 stereo outputs, a stereo pair may be broken into 2 mono channels
Digital input format	AES/EBU and S/PDIF (selectable by channel)
Digital sampling rates	24 bit sample rate converters provided on all inputs. Autodetect from 24kHz to 96kHz
Precision	24 bits input and output
Output	32k, 44.1k or 48k - AES/EBU or SPDIF (user selectable)
Input impedance	110 ohms, 75 ohms, 2200 ohms; jumper selectable, 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	640 channels, 24 bit sample data
Communication format	Dual Gigabit 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 optional single mode fibre and lasers)

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****Specifications Subject to Change****



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