

Soundweb™ OMNI



16e Open Architecture I/O
Expander



The BSS Soundweb OMNI 16e Open Architecture I/O Expander offers the ability to onramp and offramp Analog and AES3 to and from Soundweb OMNI Digital Signal Processors. The 16e converts these signals to and from Dante or AES67 for processing by Soundweb OMNI DSPs.

Each audio I/O port on Soundweb OMNI I/O Expanders is format configurable as either analog or stereo AES3 and four of the audio I/O ports are configurable to be either inputs or outputs. All GPIO ports are configurable as either input or output ports, and their format can be either analog or digital.

FEATURE HIGHLIGHTS

- 4x4x4 Analog / 8x8x8 AES3 audio channels
- 16x16 Dante/AES67 networked audio channels
- 12 GPIO ports (fully flexible)
- Studio-quality 60dB microphone pre-amp on all inputs
- High resolution DAC and ADC
- Primary and secondary Dante connections
- Redundant HControl ports
- Full-color, front panel LCD with metering
- Stereo AES3 on every audio connector
- Enterprise-grade network security support
- Unlimited number of Soundweb OMNI Expanders can be added to a single project file
- Configurable, controllable and monitorable with AVX Suite
- HARMAN HControl protocol supported
- Private and Public Routing for Dante support

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GENERAL SPECIFICATIONS

POWER	
Voltage Input	100 - 240
Power Input	200 WATTS
Current Input	2.1A @ 120 VAC - 1.1A @ 240 VAC
Heat Output	<415 BTU/Hr
THERMAL	
Operating Temp Range	0° - 45° C
Storage Temp	-20° - 60° C
AUDIO I/O	
Physical I/O	Analog = 4 in, 4 out, 4 flex, AES3 Digital = 8 in, 8 out, 8 flex
ANALOG INPUTS	
Mic/Line Input Gain (1dB steps)	0-60dB
Input Impedance	2.4k ohms
Maximum Input Level	+27dBu
CMRR	82dB
Input Noise (E.I.N)	-130dBu
Phantom Power	10mA per channel @ +48vDC, all channels driven
Latency (ADC) @48kHz/96kHz	12 samples (0.250ms @ 48kHz) (0.125ms @ 96kHz)
ADC bit depth	24bits
DIGITAL INPUTS	
Input Impedance	110 ohms
System Sample Rate	48/96kHz
Sample Rate Conversion	44.1kHz, 48kHz, 88.2kHz, 96kHz, 192kHz
THD+N	<-130dB
Latency	Bypass: None, SRC: <1.2ms
Frequency Response	20Hz to 20kHz, +/- 0.5dB
Dynamic Range	>140dB
ANALOG OUTPUTS	
Maximum Output Level	+27dBu
Frequency Response	20Hz to 20kHz, +/- 0.5dB
THD	0dB gain, 10dBu input, 0.001%
Dynamic Range	120dBu
Crosstalk	-128dBu (@ 1Khz, 10Khz)
Latency (DAC) @48kHz/96kHz	12 samples (0.250ms @ 48Khz), (0.125ms @ 96kHz)
Bit Depth	24bits

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GENERAL SPECIFICATIONS (Cont.)

DIGITAL OUTPUTS	
Output Impedance	110ohms
Sample Rate	48/96kHz
Sample Rate Conversion	None
THD+N	<-130dB
Latency	None
ACOUSTIC	
Fan Noise	30 dB SPL A-Weighted at 45C 25 db SPL A-Weighted at 25C
CONTROL PORTS	
Control Input Voltage	12 Volts Max
Control Input Impedance	32k Ohms
Logic Output Voltage	12 Volts Max
Logic Output Impedance	10 Ohms
Logic Output Current	60mA source, 20mA sink
CONTROL NETWORK	
Connectivity	2x RJ-45 Gigabit Ethernet (redundant)
Compatibility	HControl
Max Cable Length	328 Feet/ 100 Meters
AUDIO NETWORK	
Connectivity	2x RJ-45 Gigabit Ethernet (redundant)
Compatibility	Dante/AES67
Capacity	16 channels
Latency	Selectable: 0.15ms, 0.25ms, 0.5ms, 1ms, 5ms
FRONT PANEL	
Main Operation	LCD Screen 135mm x 25mm = 5.43" diagonal; LCD screen: 1200 x 221 pixel
Indicators	Dante Link, HControl Link, Activity, PSU Health
Locator	Front and Rear
MOUNTING	
Size	17.52" x 19" x 1.73" (445mm x 483mm x 44mm)
Weight	12.9 lbs. 5.85kg
Rack Type	19" per EIA-310 standard