

Soundweb OMNI

512p Open Architecture
Digital Signal Processor



The BSS Soundweb OMNI 512p Open Architecture Digital Signal Processor is the most powerful enterprise-grade processor ever developed by BSS. With processing capability that surpasses previous BSS products, the all-new design ensures the seamless handling of today's most complex installations to be future-ready to meet the evolving needs of tomorrow. The 512p features 512x512 Dante/AES67 networked audio channels @ either 48kHz or 96kHz; enterprise-grade network security support; an onboard scripting engine developed by AMX; 8 GPIO ports (fully flexible); 160 AEC channels; 64 VoIP lines; high precision word clock and BNC clock (in/out); dual redundant power supplies, Dante and HControl; 128 channel internal media player with 1TB SSD; full-color, interactive front panel LCD; and more.

FEATURE HIGHLIGHTS

- 512x512 at up to 96kHz Dante/AES67 networked audio channels
- Enterprise-grade network security support
- Onboard scripting engine developed by AMX
- 24/48kHz and 24/96kHz supported bit depth/sample rates
- 8 GPIO ports (fully flexible)
- 160 AEC channels
- 64 VoIP lines
- High precision word clock
- BNC clock (in/out)
- Dual redundant power supplies, Dante and HControl
- 128 channel internal media player with 1TB SSD
- Full-color, interactive front panel LCD
- Choice of centralized or distributed DSP topologies
- Unlimited number of Soundweb OMNI processors can be added to a single project file
- Configurable, controllable and monitorable with AVX software suite
- HARMAN HControl protocol supported
- Private and Public Routing for Dante

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* Features, specifications, and appearance are subject to change without notice.

REV: XXXXXXXX

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GENERAL SPECIFICATIONS

POWER	
Voltage Input	100 - 240 VAC
Power Input	250W
Current Input	2.1A @ 120 VAC - 1.1A @ 240 VAC
Heat Output	853 BTU/Hr
Redundancy	2 Mains cords, 2 mains power supplies, full capability with only 1 supply
THERMAL	
Operating Temp Range	0° - 45° C
Storage Temp	-20° - 60° C
CONTROL GPIO	
8 channel FLEX	Each GPIO pin can be configured as input or output, analog or logic.
Convenience Power	5V +/- 5%, 300 mA overload protected.
Logic Output	Programmable for high/low (0/5v) binary. 20mA source or sink
Logic Input	Programmable for voltage threshold, 12V max, 10k input resistance to ground
Analog Output	0 - 12 V DC +/- 2% 10 mA source or sink
Analog Input	0 - 12 V DC +/- 2% 10k input resistance to ground
Relay drive	Open Drain drive capable of 60 mA sink. 12V max off voltage.
ACOUSTIC	
Fan Noise	30 dB SPL A-Weighted MAX 23 dB SPL A-Weighted at Nominal
WORD CLOCK	
Frequencies	48kHz or 96kHz
Accuracy	1 min/yr = 2 ppm
Input	TTL, 75 Ω BNC Connector
Output	TTL, 75 Ω BNC Connector
CONTROL NETWORK	
Connectivity	RJ-45 Gigabit Ethernet (redundant)
Compatibility	HControl
Max Cable Length	100m or 328ft
AUDIO NETWORK	
Connectivity	RJ-45 Gigabit Ethernet (redundant)
Compatibility	Dante and AES67
Capacity	512 channels at 48kHz Or 96kHz
Latency	< Set in Dante controller

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GENERAL SPECIFICATIONS (Cont.)

MEDIA STORAGE	
Capability	Internal SSD
Channel Count	128 channels total
Capacity	>3,000 hours
FRONT PANEL	
Main Operation	LCD Screen 13.4 x 2.5 cm = 5.3" diagonal LCD Screen 1200 x 225 pixel
Status LEDs	DanteLink/Activity HControl Link/Activity, PSU Health
Locate Indicator	Front and Rear
MOUNTING	
Size	19in. (483mm) width x 3.6in. (88mm) height x 17.5in. (445mm) depth (2 RU)
Weight	12 lbs, 5.4 kgs
Rack Type	19in. per EIA-310 standard

PRELIMINARY DOCUMENTATION - SUBJECT TO CHANGE* - 7-2-24