

DSi 2.0 Series

Next-Generation Amplifiers for JBL Cinema Loudspeakers



HIGHLIGHTS ■

Best-in-Class DSP

96kHz/32-bit floating-point internal processing with all the processing needed to optimize cinema loudspeakers

Superior Power Density

Crown's patented DriveCore technology delivers greater power density than traditional designs

Built-in JBL Speaker Tunings

Speaker tuning presets for the entire JBL cinema speaker range

Remote Monitoring and Management

SNMP connectivity for interfacing with third-party Theater Management Systems (TMS) and cinema control (NOC) systems

Audio Networking (SA4-D, MA4-D and LA4-D Models)

Dante®/AES67 support for direct digital connection with Dolby Atmos® Connect interfaces

The DSi 2.0 amplifier family, JBL's first line of dedicated cinema amplifiers, builds on Crown DSi Digital Screen Array amplifier technology and best-in-class DSP from Crown's flagship CDi DriveCore Series to deliver potent, efficient amplification and top-notch processing for JBL's entire range of cinema loudspeakers. Cinema managers and integrators looking to maximize their power investment and future-proof their systems can count on JBL DSi 2.0 Series to deliver robust, reliable performance in an ultra-efficient package.

KEY MESSAGES ■

BEST-IN-CLASS DSP

DSi 2.0 amplifiers feature best-in-class, 96kHz/32-bit floating-point internal processing with delay (up to 1,000 ms), 8-band parametric EQ, crossover, FIR processing, LevelMAX™ limiting and more, eliminating the need for an external processor.

SUPERIOR POWER DENSITY MEANS BETTER VALUE

Crown's patented DriveCore technology seamlessly integrates the amplifier drive stage into the power output stage, fusing everything into one powerful chip to deliver greater efficiency, reliability and performance. Using DriveCore, DSi 2.0 amps deliver greater power density than traditional designs, offering 4 channels of amplification with bridgeable outputs in a single 2U footprint. Using high-output 2Ω mode allows powering of up to 4 surround speakers from a single channel.

DEDICATED JBL SPEAKER TUNINGS

Built-in JBL cinema speaker tuning presets manage voltage and frequencies delivered to transducers, maximizing system efficiency and optimizing audio signal quality while preventing equipment damage and accelerating deployment.

IN THE BOX ■

DSi 2.0 Amplifier
IEC Power Cable
Quick Start Guide

REMOTE MONITORING AND MANAGEMENT

SNMP connectivity for interfacing with third-party theater-management systems and Cinema Control (NOC) systems for remote status and fault monitoring. A HiQnet port provides access to HARMAN's Audio Architect software, for controlling, configuring and monitoring amplifier operation through a standard TCP/IP network. A combined GPIO/AUX port can be used to externally recall presets, mute channels, monitor amplifier health and power the amplifier on and off.

AUDIO NETWORKING (SA4-D, MA4-D AND LA4-D MODELS)

AES67 connectivity allows networked audio distribution from any Dante/AES67-compatible device and direct interfacing with Dolby Atmos Connect interfaces.* Dual network audio ports support primary and secondary networks configured as switched (daisy chain) or redundant (star) systems.

**Available via a firmware update.*

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APPLICATIONS ■

PROFESSIONAL CINEMA ROOMS

Standard 5.1, 7.1 or immersive Atmos audio cinema playback systems in medium to large professional cinema rooms.



FEATURES ■

- Three power ratings available: SA4/SA4-D: 350W (8Ω), MA4/MA4-D: 700W (8Ω), LA4/LA4-D: 1,200W (8Ω)
- 96kHz/32-bit floating-point processing with FIR filtering, LevelMAX™ limiting, 8-channel parametric EQ, delay and more, eliminating the need for an external speaker processor
- SA4-D, MA4-D and LA4-D models includes Dante/AES67 support for seamless integration with Dolby Atmos Connect and other interfaces
- Crown DriveCore technology replaces hundreds of amplifier parts with a single chip, for superior efficiency and reliability
- Four channels with bridgeable outputs to easily power JBL's entire range of cinema speakers
- New amplifier design allows for high power output at 2Ω, enabling up to 4 surround speakers to be powered by a single channel
- Built-in JBL cinema speaker tuning presets match all JBL cinema loudspeakers for optimal performance, loudspeaker protection and accelerated deployment
- SNMP to interface with third-party Theater Management Systems (TMS) and cinema control (NOC) systems
- HiQnet port to interface with HARMAN Audio Architect control software over a standard TCP/IP network
- Externally recall presets, mute channels, monitor amplifier health and power on and off through a combined GPIO/AUX port
- Intuitive front-panel LCD and encoder to configure amplifier settings and mute channels at the push of a button
- Ultra-quiet operation: 51dBA maximum fan noise
- Standard 19-inch (482 mm) 2U chassis
- International power supply

Analog Model Back Panel



Dante/AES67 Model Back Panel



ORDER SPECIFICATIONS ■

| | SA4 | SA4-D | MA4 | MA4-D | LA4 | LA4-D |
|------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| SHIPPING CARTON (L x W x H): | TBD | | | | | |
| SHIPPING WEIGHT: | 52.03 lb (23.6 kg) | 54.23 lb (24.6 kg) | 52.03 lb (23.6 kg) | 54.23 lb (24.6 kg) | 52.03 lb (23.6 kg) | 54.23 lb (24.6 kg) |
| UPC CODE: | TBD | TBD | TBD | TBD | TBD | TBD |

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TECHNICAL SPECIFICATIONS ■

| | SA4 | SA4-D | MA4 | MA4-D | LA4 | LA4-D |
|--|---|----------|------------------|----------|------------|----------|
| USER INTERFACE | | | | | | |
| FRONT-PANEL INTERFACE: | Mute and configuration with encoder | | | | | |
| FRONT-PANEL DISPLAY: | LCD display and signal LED's (input/output) | | | | | |
| CHANNELS: | 4 | | | | | |
| CONNECTORS | | | | | | |
| ANALOG AUDIO INPUT: | Block connector | | | | | |
| DIGITAL AUDIO INPUT (DANTE/AES67): | N/A | 2x RJ-45 | N/A | 2x RJ-45 | N/A | 2x RJ-45 |
| SPEAKER OUTPUT: | Barrier terminal block, accommodates 10AWG wire | | | | | |
| NETWORK/MONITORING/CONTROL: | RJ-45 | | | | | |
| GPIO/AUX: | 2in/2out block connector | | | | | |
| POWER: | Standard IEC | | | | | |
| POWER (1kHz, 20MS BURST, 2 CHANNELS DRIVEN, 0.5% THD MAX) | | | | | | |
| RATED POWER (8Ω): | 350W x 4 | | 750W x 4 | | 1,300W x 4 | |
| RATED POWER (4Ω): | 700W x 4 | | 1,400W x 4 | | 2,200W x 4 | |
| RATED POWER (2Ω): | 1,050W x 4 | | 2,100W x 4 | | 1,200W x 4 | |
| RATED POWER (8Ω BRIDGED): | 1,300W x 2 | | 2,600W x 2 | | 4,000W x 2 | |
| RATED POWER (4Ω BRIDGED): | 2,200W x 2 | | 4,200W x 2 | | 2,300W x 2 | |
| PERFORMANCE | | | | | | |
| DIGITAL SIGNAL PROCESSING: | 96kHz, 32-bit floating point | | | | | |
| VOLTAGE GAIN (AT 4,10,16dBu SENSITIVITY; 4/8Ω): | 32.5/26.5/20.5dB | | 35.5/29.5/23.5dB | | 38/32/26dB | |
| FREQUENCY RESPONSE (4Ω, 20Hz – 20kHz): | ±0.5dB | | | | | |
| TOTAL HARMONIC DISTORTION (AT FULL RATED POWER, FROM 20Hz – 20kHz): | 0.35% | | | | | |
| ANALOG INPUT SIGNAL TO NOISE RATIO (REF. RATED POWER, 'A'-WTD.): | >106dB | | >105dB | | >104dB | |
| ANALOG INPUT SIGNAL TO NOISE RATIO (REF. RATED POWER, 20Hz – 20kHz): | >100dB | | >99dB | | >98dB | |
| INTERMODULATION DISTORTION (60Hz AND 7kHz AT 4:1, FROM -30dB TO FULL RATED POWER): | ≤0.35% | | | | | |
| DAMPING FACTOR (20Hz TO 100Hz): | >1000 | | | | | |
| CROSSTALK (BELOW RATED POWER, 20Hz – 1kHz): | >80dB | | | | | |
| COMMON MODE REJECTION (20Hz – 1kHz, TYPICAL): | >70dB | | | | | |
| DC OUTPUT OFFSET (WITH INPUTS SHORTED): | ±10mV | | | | | |
| INPUT IMPEDANCE (NOMINALLY BALANCED, NOMINALLY UNBALANCED): | 70 kΩ balanced, 35 kΩ unbalanced | | | | | |
| MAXIMUM INPUT LEVEL (LOW AMP GAIN MODE): | +21dBu | | | | | |
| LOAD IMPEDANCE STEREO/DUAL MODE: | 2Ω – 16Ω | | | | | |
| LOAD IMPEDANCE BRIDGE MONO: | 4Ω – 16Ω | | | | | |
| MAXIMUM FAN NOISE (REF. dB SPL @ 1M) : | 51dBA | | | | | |
| ELECTRICAL | | | | | | |
| POWER SUPPLY: | 100 – 220V ±10%, 50/60Hz | | | | | |
| SLEEP: | GPIO/AUX connector | | | | | |
| PHYSICAL | | | | | | |
| DIMENSIONS (D x W x H): | 17.21 x 18.98 x 3.46 in (437.2 x 482 x 88 mm) | | | | | |
| NET WEIGHT: | 23.15 lb (10.5 kg) | | | | | |



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