

PowerSpace P4300A

versatile power amplifier



Product Overview

Ideal for zone-expansion applications, Bose Professional PowerSpace amplifiers enhance any premium commercial sound installation with clean, reliable power — and digital connectivity. A Bose Professional AmpLink input allows for multiple channels of uncompressed, low-latency digital audio from Bose Professional DSPs via a single Cat 5 cable. The PowerSpace P4300A provides 300 watts per channel and features versatile outputs that give you the flexibility to deliver full channel power to either low- or high-impedance loads — without bridging — and even send double power to a single zone. For premium commercial applications, PowerSpace amplifiers provide the power and performance to get the job done — pure and simple.

Applications

- Retail stores
- Restaurants and bars
- Hospitality venues
- Conference centers
- Schools
- Auxiliary zones

Key Features

300 watts per channel and works seamlessly with Bose Professional loudspeakers, DSPs, and controls to create complete commercial sound systems

Bose Professional AmpLink input for simplified multichannel digital audio connection to compatible DSPs, reducing terminations and related points of failure

Load-independent outputs deliver full channel power to either low-impedance loads (4–8 Ω) or high-impedance (70/100V) loads without bridging

I-Share outputs deliver 2X power level into low-impedance (2–4 Ω) or high-impedance (70/100V) loads by combining the current of both channels

Auto-standby mode saves power when audio signal falls below a set threshold after 20 minutes, then wakes when audio returns

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Technical Specifications

POWER RATING		
Amplifier Power	4 × 300 W (THD+N < 0.04%, 1 kHz, 4–8 Ω, 70/100V)	
I-Share Mode Power	2 × 600 W (2–4 Ω, 70/100V) (each channel pair can be I-Shared)	
Gain (Low-Z mode)	32 dB	
Gain (70V mode)	35 dB	
Gain (100V mode)	38 dB	
AUDIO PERFORMANCE		
Frequency Response	4–8 Ω: 20 Hz – 20 kHz (±1 dB @ 1 W) 70/100V: 20 Hz – 20 kHz (±1 dB @ 1 W) with 50 Hz high-pass filter	
Channel Separation (Crosstalk)	> 80 dB @ 1 kHz, > 65 dB @ 20 kHz	
Dynamic Range	≥ 100 dBA (at rated power)	
Audio Latency	< 1 ms (any analog or AmpLink input to loudspeaker output)	
AUDIO INPUTS	ANALOG	AMPLINK
Input Channels	4 balanced	8 digital
Connectors	2 × 6-pin Euroblock	RJ-45 (input)
Input Impedance	10 kΩ	
Maximum Input Level	22 dBu (@ 14 dBu sensitivity setting)	
Sensitivity	-10 dBV / 4dBu / 14 dBu	
AUDIO OUTPUTS	LOUDSPEAKER	AMPLINK
Outputs	4	8 digital
Connectors	8-terminal block	RJ-45 (Thru)
INDICATORS AND CONTROLS		
Power LED	Solid white: power is on. Blinking white: unit is in auto standby mode. Solid red: power supply fault. Blinking Red: thermal fault.	
Input Signal LED	Green: signal present. Amber: input is near clipping. Red: input is clipping.	
Output Limit LED	Amber: amplifier limiting an output. Blinking red: amplifier muted. Solid red: amplifier or thermal fault.	
Controls, Front Panel	Power on/off	
Controls, Rear Panel	Amplifier mode DIP switches, input sensitivity switch, input select dial, mute, output attenuators	

TECHNICAL DATA

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ELECTRICAL	
Mains Voltage	100 VAC – 240 VAC ($\pm 10\%$, 50/60 Hz)
AC Power Consumption	120 VAC – 230 VAC, 25 W (auto standby), 570 W (max)
Mains Connector	Standard IEC (C14)
Protections	$V_{\text{Peak}}/V_{\text{RMS}}$ limiters, high temperature, output short, extra high frequency (EHF), excessively low or high AC line voltage
PHYSICAL	
Operational Temperature Range	0 °C to 40 °C (32 °F to 104 °F)
Storage Temperature Range	-40 °C to 70 °C (-40 °F to 158 °F)
Dimensions (H × W × D)	44 mm × 483 mm × 420 mm (1.7 in × 19.0 in × 16.5 in)
Net Weight	6.6 kg (14.6 lb)
Shipping Weight	8.6 kg (19.0 lb)
Cooling System	Microprocessor-controlled variable-speed fans, front-to-back air flow

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Front Panel



1. **Power switch** – In/Out standby mode

2. **Power LED**

- Solid white LED indicates power is on.
- Blinking white LED indicates the unit is in auto standby mode.
- Solid red LED indicates a power supply fault.
- Blinking red LED indicates a thermal fault.

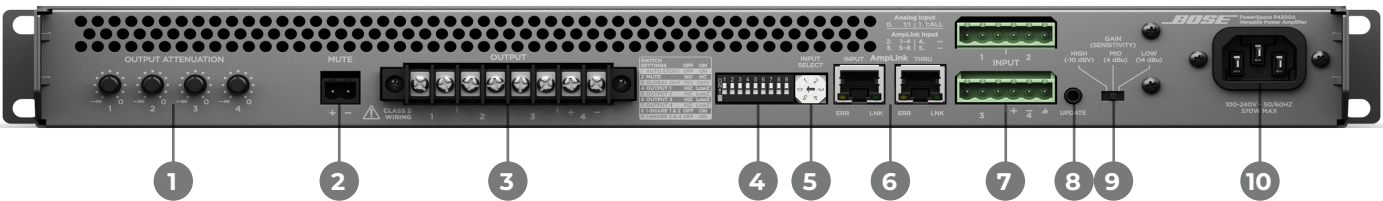
3. **Input 1, 2, 3, 4 signal LED** – Each LED operates independently:

- Green LED indicates signal is present.
- Amber LED indicates signal is near clipping.
- Red LED indicates clipping.

4. **Output 1, 2, 3, 4 limit LED** – Each LED operates independently:

- LED is amber when the amplifier is limiting the corresponding output due to exceeding the outputs' V_{Peak} or V_{RMS} limits.
- LEDs will display solid red if an amplifier fault is detected.
- LEDs will blink red when all outputs are muted.

Rear Panel



1. **Output attenuation 1, 2, 3, 4** – Output attenuators for each output. Turn the controls clockwise to decrease attenuation and counter-clockwise to increase attenuation.

2. **Mute** – Contact closure connection where a short across the mute connector will mute all outputs. Mute polarity can be inverted by a DIP switch.

3. **Output** – 8-terminal block connector for loudspeaker connections. Each channel can deliver up to 300 watts regardless of load into 4Ω , 8Ω , $70V$, or $100V$. Each output pair can be I-Shared.

4. **DIP switches** – A bank of switches used to set amplifier configuration.

5. **Input select** – Dial selects if analog or AmpLink audio inputs are used. The default state is analog 1:1.

6. **AmpLink** – Input RJ-45 connector that receives up to 8 digital channels from a Bose Professional AmpLink product. The amp also supports a Thru path for daisy-chaining all 8 digital audio channels to up to 8 other AmpLink products, at a maximum distance of 10 m between products.

Caution: Shielded EIA/TIA 568B straight Cat 5 cable, or equivalent, is required for proper AmpLink operation, 1 m cable included. Unshielded cable is not supported and may cause AmpLink to operate improperly. Do **not** connect either RJ-45 port to an Ethernet-based network.

7. **Analog inputs** – 2 balanced 6-pin Euroblock line-level input connectors.

8. **Update port** – Firmware updates.

9. **Gain/sensitivity** – Slide switch to set gain/sensitivity setting.

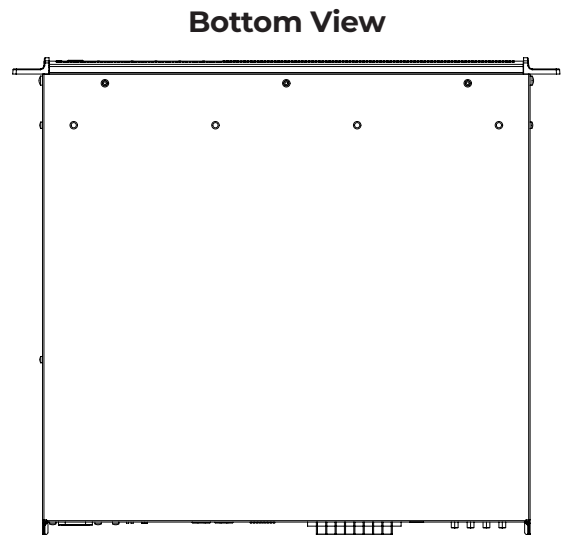
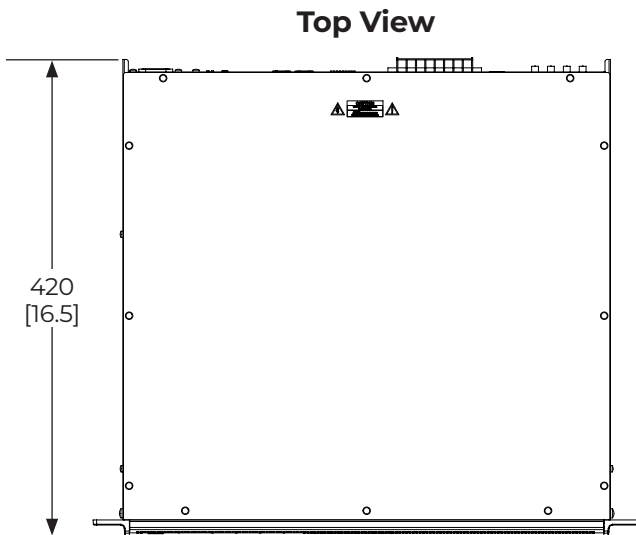
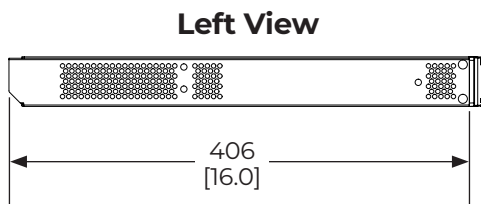
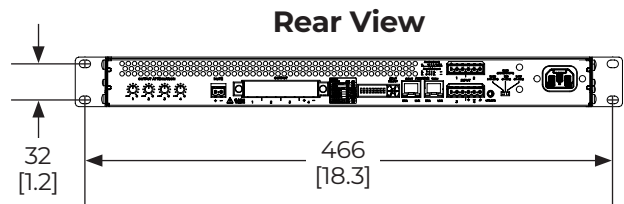
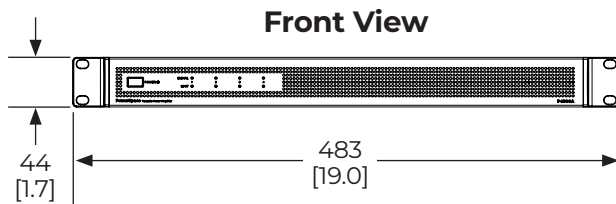
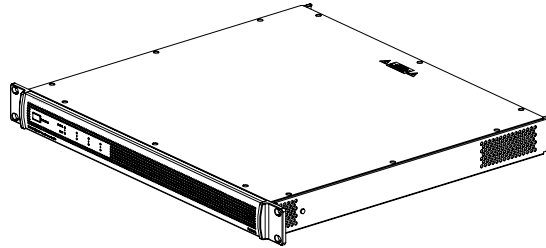
10. **AC inlet** – Removing the AC cord when the amplifier is on is equivalent to powering down using the front panel power switch and is an acceptable power-down method.

TECHNICAL DATA

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Mechanical Diagrams¹



1. Dimensions are shown in millimeters over inches.

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