

# PowerSpace P21000A

## 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 P21000A provides 1000 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

**1000 watts per channel** and compatible 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 (4–8  $\Omega$ ) or high-impedance (70/100V) loads without bridging

**I-Share output** delivers 2X power level into low-impedance (2–4  $\Omega$ ) 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

<b>POWER RATING</b>		
Amplifier Power	2 × 1000 W (THD+N < 0.04%, 1 kHz, 4–8 Ω, 70/100V)	
I-Share Mode Power	1 × 2000 W (2–4 Ω, 70/100V)	
Gain (Low-Z mode)	38 dB	
Gain (70V mode)	35 dB	
Gain (100V mode)	38 dB	
<b>AUDIO PERFORMANCE</b>		
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)	
<b>AUDIO INPUTS</b>	<b>ANALOG</b>	<b>AMPLINK</b>
Input Channels	2 balanced	8 digital
Connectors	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	
<b>AUDIO OUTPUTS</b>	<b>LOUDSPEAKER</b>	<b>AMPLINK</b>
Outputs	2	8 digital
Connectors	4-terminal block	RJ-45 (Thru)
<b>INDICATORS AND CONTROLS</b>		
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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<b>ELECTRICAL</b>	
Mains Voltage	100 VAC – 240 VAC ( $\pm 10\%$ , 50/60 Hz)
AC Power Consumption	120 VAC – 230 VAC, 25 W (auto standby), 950 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
<b>PHYSICAL</b>	
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 signal LED** – Each LED operates independently:

Green LED indicates signal is present.

Amber LED indicates signal is near clipping.

Red LED indicates clipping.

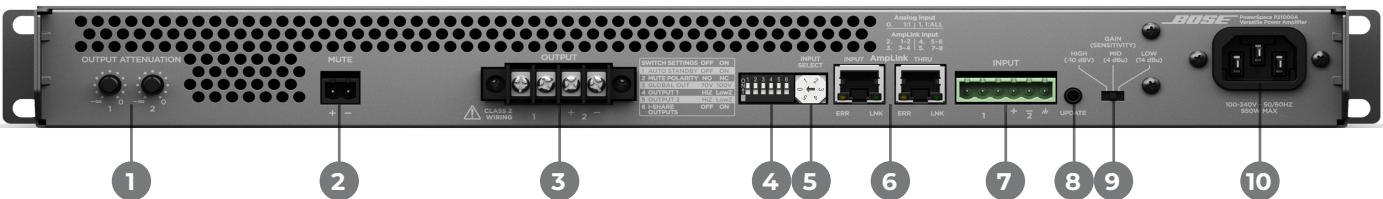
4. **Output 1, 2 limit LED** – Each LED operates independently:

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** – 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** – 4-terminal block connector for loudspeaker connections. Each channel can deliver up to 1000 watts regardless of load into 4  $\Omega$ , 8  $\Omega$ , 70V, or 100V. Outputs 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** – Balanced 6-pin Euroblock line-level input connector.

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

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

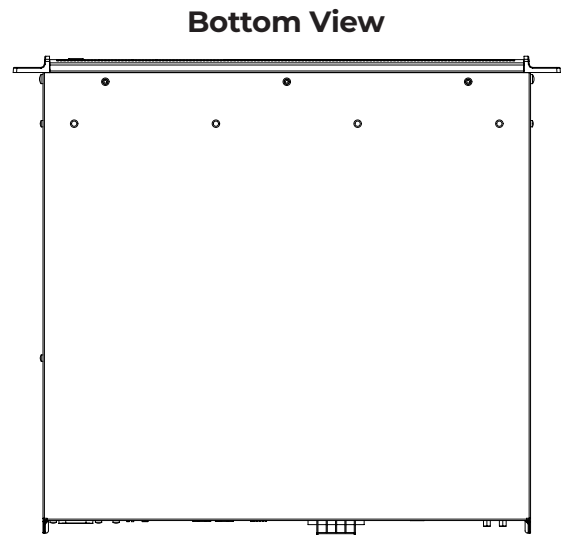
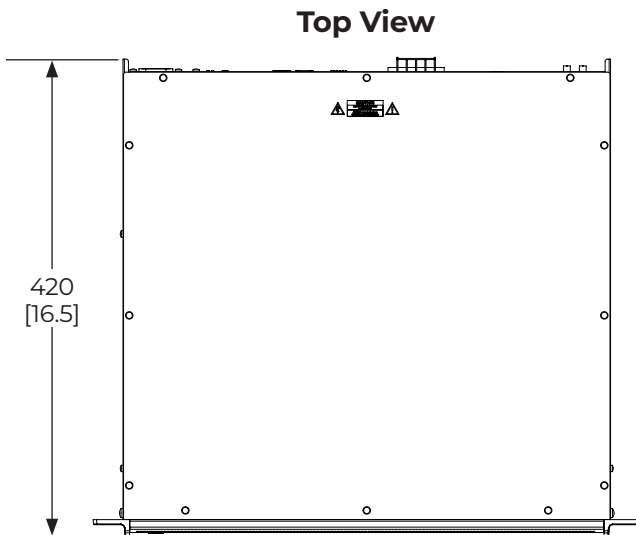
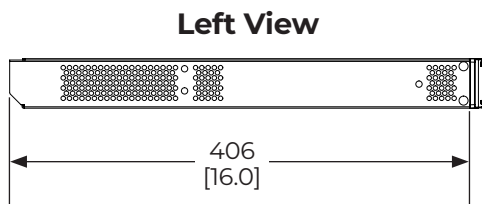
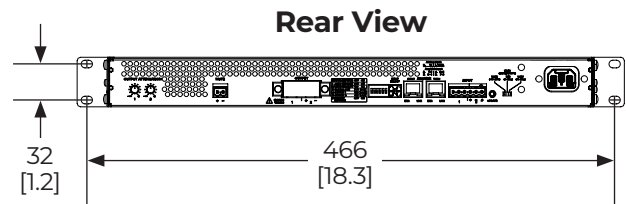
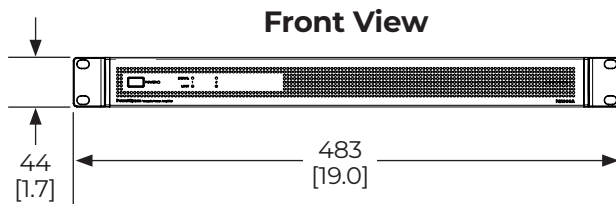
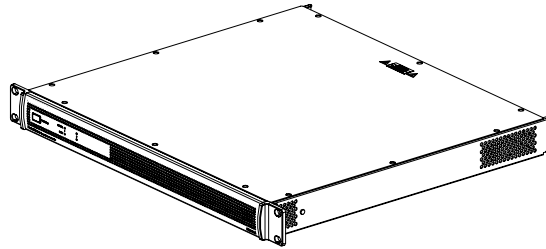
10. **AC inlet** – Removing the AC cord when the amplifier is on is equivalent to powering down using the front panel power switch and is an acceptable power-down method.

TECHNICAL DATA

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## Mechanical Diagrams<sup>1</sup>



1. Dimensions are shown in millimeters over inches.

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