TECHNICAL DATA

PowerSpace P21000A
versatile power amplifier

Product Description

Ideal for zone-expansion applications, Bose PowerSpace amplifiers enhance any premium commercial sound installation with clean, reliable power — and digital connectivity. A Bose AmpLink input allows for multiple channels of uncompressed, low-latency digital audio from Bose 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, Bose 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 loudspeakers, DSPs, and controls to create complete commercial sound systems

Bose 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 Ω) or high-impedance (70/100V) loads without bridging

I-Share output delivers 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	2x 1000 W (THD+N < 0.04%, 1 kHz, 4-8 Ω, 70/100V)	
I-Share Mode Power	1x 2000 W (2-4 Ω, 70/100V)	
Gain (Low-Z mode)	38 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: Same as 4-8 Ω 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	2 balanced	8 digital
Connectors	6-pin Euroblock	RJ-45 (Input)
Input Impedance	10 kΩ	
Maximum Input Level	22 dBu (at 14 dBu sensitivity setting)	
Sensitivity	-10 dBV / 4dBu / 14 dBu	
AUDIO OUTPUTS	**SPEAKER**	**AMPLINK**
Outputs	2	8 digital
Connectors	4-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	
ELECTRICAL		
Mains Voltage	100 VAC – 240 VAC (±10%, 50/60 Hz)	
AC Power Consumption	120 VAC: 25 W (Standby), 950 W (Max)	230 VAC: 25 W (Standby), 950 W (Max)
Mains Connector	Standard IEC (C14)	
Protections	Vpeak/Vrms 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	
Storage Temperature Range	-40 °C to 70 °C	
Dimensions (H x W x D)	44 x 483 x 414 mm (1.7 x 19.0 x 16.3 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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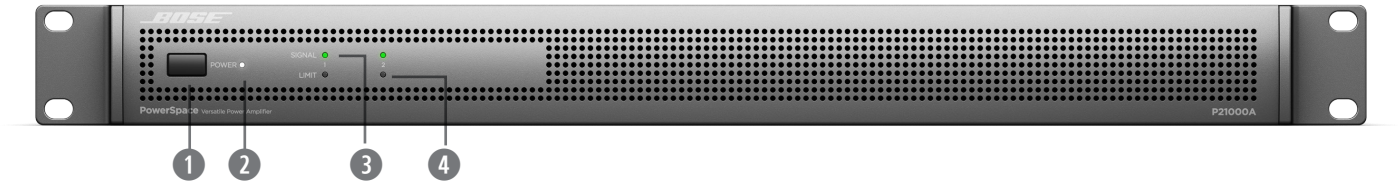
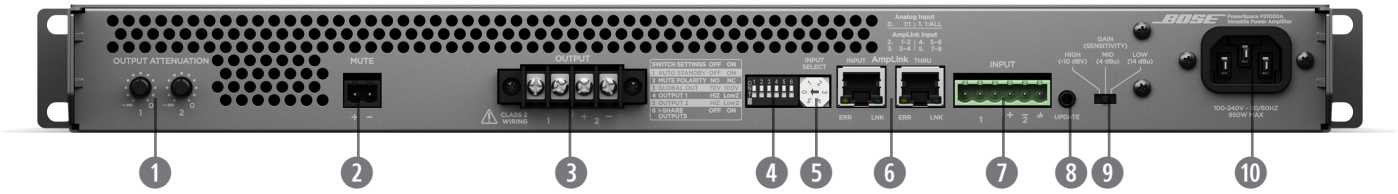


1. **POWER SWITCH** – In/Out stanby mode
2. **POWER LED**
   Solid white LED indicates power is ON
   Blinking white LED indicates the unit is in auto standby mode
   Solid red LED indicates a power supply fault
   Blinking red LED indicates a thermal fault
3. **INPUT 1, 2, 3, 4 SIGNAL LED** – Each LED 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' Vpeak or Vrms limits
   LEDs will display solid red if an amplifier fault is detected
   LEDs will blink red when all outputs are muted



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 600 watts regardless of load into 4 Ω, 8 Ω, 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 AmpLink product. The amp also supports a THRU path for daisy-chaining all 8 digital audio channels to up to 8 other Bose 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, 1m 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** – Firmware updates
9. **GAIN/SENSITIVITY** – Slide switch to set gain/sensitivity setting
9. **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 accept able power-down method

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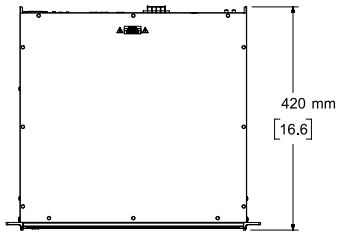
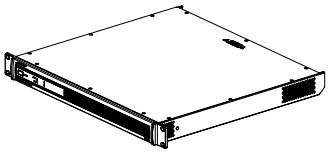
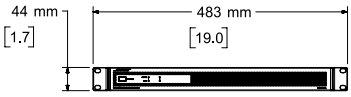
Mechanical Diagrams



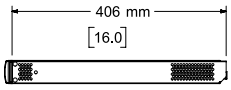
Top View



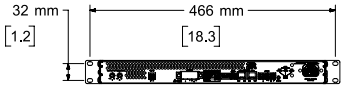
Left View



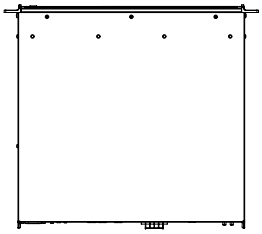
Front View



Right View



Rear View



Bottom View

NOTES:
1. DIMENSIONS ARE IN MILLIMETERS OVER INCHES

For additional specifications and application information, please visit PRO.BOSE.COM. Specifications subject to change without notice. 11/2019