# PowerShareX 4804D
adaptable four-channel power amplifiers

**BOSE**

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## Product Description

PowerShareX adaptable amplifiers are an ideal match for Bose Professional sound systems. Onboard DSP gives you instant access to optimized loudspeaker presets. ControlSpace Designer software allows for quick configuration. And proven Powersoft technology ensures you put every watt to work.

Choose from three models: PSX1204D, PSX2404D, and PSX4804D. Each networkable, four-channel amp offers innovative power-sharing flexibility, peak power capability, Dante connectivity, and much more — all in a space-saving 1RU design.

And easy integration with Bose Professional DSPs, loudspeakers, and the entire ControlSpace ecosystem makes design, configuration, installation, and operation much simpler — so you can get the job done and move on to the next.

## Applications

Designed for commercial installations

Houses of worship

Performing arts

Corporate

Hotels

Retail / Restaurants

Education

## Key Features

**Power-sharing technology** dynamically allocates power evenly or asymmetrically across outputs without having to bridge channels or lose channel count when powering Bose Professional loudspeakers.

**Bose Professional certified presets and ControlSpace Designer integration** delivers the best performance, loudspeaker protection, and visibility of the entire Bose Professional system from a single UI for easy design, configuration, control, and monitoring.

**Proven Powersoft reliability** ensures the systems operate every day, mitigating non-billable service calls.

**Flexible outputs** capable of handling either low-impedance (2, 4, 8Ω) or high-impedance (70, 100V) loudspeaker loads.

**Built-in Dante audio** supports up to 4 digital input channels from a Dante network eliminating the requirement of ordering and installing an accessory network card.

**4 analog inputs** provide line-level source connections.

**PowerShare Design Tool** is a downloadable design tool that allows system designers the ability to choose their PowerShare amp and simulate the power-sharing capability that, in some cases, can lead to a lower-power model requirement and cost savings.

**GPIO connections** provide a remote level, on/off, and alarm triggers.

**Network monitoring** provides real-time system performance data, minimizing downtime, guesswork, and unnecessary service calls.

**Rack-friendly 1RU design** that is only 358 mm (14.1 in) deep eliminating the need for oversized racks.

**Universal switch mode power supply** with power factor correction

REV DATE: 06-06-2023

# PowerShareX Series
## adaptable four-channel power amplifiers

## Technical Specifications

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| MODEL | | PSX4804D |
|---|---|---|
| **SYMMETRICAL RATINGS\* (with all channels equally loaded)** | | |
| Rated power total | @ 4-8Ω, 70V, 100V | 4800W |
| Rated power | @ 4-8Ω, 70V, 100V | 1200W x 4 |
| | @ 2Ω | 1500W x 4 |
| Peak power\*\*\* | @ 8Ω, 70V, 100V | 2400W x 4 |
| | @ 4Ω | 3000W x 4 |
| | @ 2Ω | 3000W x 4 |
| **ASYMMETRICAL RATINGS\*\* (total power available per a single channel using power-sharing from other channels)** Note: Recommend using the PowerShare Design Tool for system verification (downloadable at boseprofessional.com) | | |
| Rated power | @ 8Ω | 1300W |
| | @ 4Ω | 2600W |
| | @ 2Ω | 1800W |
| | @ 70V | 2100W |
| | @ 100V | 2200W |
| Peak power\*\*\* | @ 8Ω | 2600W |
| | @ 4Ω | 5200W |
| | @ 2Ω | 3600W |
| | @ 70V | 4200W |
| | @ 100V | 4400W |
| **SYMMETRICAL BRIDGED RATINGS\* (with two channels bridged and equally loaded)** | | |
| Rated power | @ 8Ω Bridged | 2400W |
| | @ 4Ω Bridged | 3000W |
| Peak power | @ 8Ω Bridged | 6000W |
| | @ 4Ω Bridged | 6000W |
| Maximum unclipped output voltage\*\*\*\* | @ 8 Ω | $139V_{peak}$ |
| Maximum output current | | $45A_{peak}$ |
| **AUDIO PERFORMANCE** | | |
| Frequency response | | 20 Hz - 20 kHz (±1.0 dB, 1 W @ 8 Ω) |
| Signal-to-noise ratio | | >110 dB(A) |
| THD+N | | < 0.1% (< 0.05% typical, from 0.1 W to half-power) |
| Intermodulation distortion (SMPTE) | | < 0.1% (< 0.05% typical, from 0.1 W to half-power) |
| Crosstalk (1 kHz) | | −70 dB typical |
| Slew rate | | > 50 V/µs @ 8 Ω, input filter bypassed |
| Output impedance | | 26 mΩ @ 100 Hz |
| **INTEGRATED DSP** | | |
| Programming software | | Bose Professional ControlSpace Designer v5.12 and above |
| A/D and D/A converters | | 24-bit, 48 kHz |
| Sample rate converter | | 24-bit, 44.1 kHz – 192 kHz |
| Internal precision | | 32-bit floating-point |
| Latency | | 2.5 ms fixed-latency architecture |
| Input-to-output signal routing | | 4 × 4 matrix |
| Presets | | Bose Professional loudspeakers |
| Available signal processing | | Matrix mixer, 5-band PEQ, array EQ, band pass, Spkr EQ, limiter, delay (See page 6) |

\* All channel driven with same burst power    \*\* Maximum power-sharing capacity per channel

\*\*\* Peak power calculated from rated power for comparison to peak power values on loudspeaker data sheets

\*\*\*\*Peak voltage is indicated for Lo-Z mode. Peak voltage can be higher in 70V and 100V modes.

REV DATE: 06-06-2023

| | |
|---|---|
| Crossovers | Butterworth 6 dB/octave to 48 dB/octave, Linkwitz-Riley & Bessel: 126 dB/octave to 48 dB/octave (IIR) |
| Delay | 2 s (input) + 100 ms (output) for time alignment |

### AUDIO INPUTS

#### ANALOG

| | |
|---|---|
| Input Channels | 4 balanced |
| Connector | 6-pin Euroblock |
| Input impedance | 20 kΩ |
| Maximum input level | 20 dBu |

### AUDIO INPUTS CONTINUED

| | PSX4804D |
|---|---|
| Maximum input level | 20 dBu |
| Input sensitivity @ 8 Ω with 26 dB gain | 4.91 Vrms |
| Input sensitivity @ 8 Ω with 29 dB gain | 3.48 Vrms |
| Input sensitivity @ 8 Ω with 32 dB gain | 2.46 Vrms |
| Input sensitivity @ 8 Ω with 35 dB gain | 1.74 Vrms |

#### DIGITAL

| | |
|---|---|
| Channels via Dante™ | 4 |
| Connector | RJ-45 |

### AUDIO OUTPUTS

| | |
|---|---|
| Channels | 4 (high-/low-impedance; bridgeable per channel pair) |
| Connectors | Euroblock, 8-pin, 7.62 mm pitch |

### INDICATORS AND CONTROLS

| | |
|---|---|
| Status indicators | 21 channel metering LEDs, 7 system status LEDs, 2 power status LEDs |
| User controls, Front panel | Power button, soft & hard reset buttons, 4 channel attenuation controls |
| User controls, Rear panel | 16 output DIP switches (4 per channel), 8 system configuration DIP switches |

### ELECTRICAL

| | |
|---|---|
| Nominals voltage | 100 VAC – 240 VAC (±10%, 50/60 Hz) |
| Operating voltage | 90 VAC – 264 VAC (50/60 Hz) |
| Mains connector | IEC C20 inlet (20 A maximum; typical power consumption 20–50% lower; regional power cord included) |
| Power supply | Universal, regulated switch mode with power factor correction (PFC) |
| Output stage topology | Class D |
| Protections | Thermal, excessively high/low AC mains voltage, DC, high-frequency, output short-circuit, inrush current, clip, peak, long-term/RMS |

### PHYSICAL

| | |
|---|---|
| Operational temperature range | 0 °C to 35 °C (32 °F to 95 °F) |
| Cooling system | Continuous temperature-controlled variable-speed fan, front-to-back airflow |
| Mounting | Integrated rack ears |
| Product dimensions (width × height × depth) | 483 mm × 45 mm × 358 mm (19.0 in × 1.8 in × 14.1 in) |
| Net weight | 7.0 kg (15.4 lb) |
| Shipping weight | 10.3 kg (22.8 lb) |
| Package contents | PowerShareX adaptable power amplifier    (3) 12-pin Euroblock connectors<br>4-pin Euroblock connector    AC power cord<br>8-pin Euroblock connector    Installation guide |

### PRODUCT CODES BY GEOGRAPHY

| | PSX4804D |
|---|---|
| Americas and Europe | 876599-03 |
| Asia Pacific | 878920-2130 |
| Australia | 878920-5110 |

REV DATE: 06-06-2023

# PowerShareX Series
adaptable four-channel power amplifiers

## Hardware Details
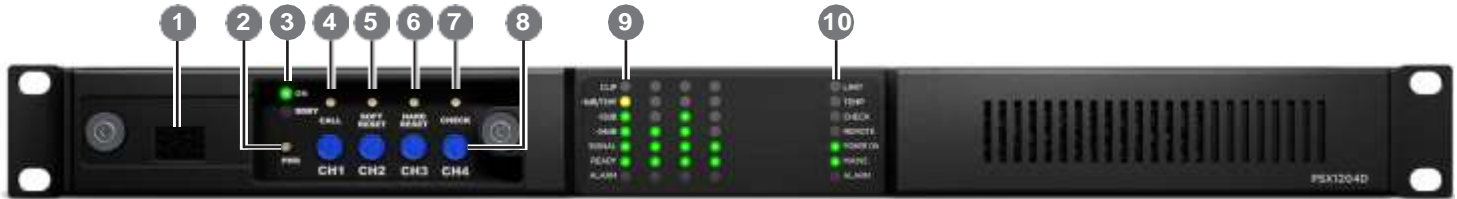


(Front panel shown with magnetic faceplate removed.)

1. **Service port:** For service only.
2. **Power button:** To switch amplifier between powered-on and standby mode, press and hold for 3 seconds.
3. **Operating mode LEDs (ON, SDBY):** Indicate whether the amplifier is powered on or in standby mode.
4. **CALL button:** Reserved for future use.
5. **SOFT RESET button:** To reset network parameters to DHCP, press and hold for 3 seconds.
6. **HARD RESET button:** To restart amplifier without affecting settings or loudspeakers EQs/presets, press and hold for 3 seconds.
7. **CHECK button:** To start the self-check procedure, press and hold for 3 seconds. The procedure tests the amplifier status and reports status via channel status and system status LEDs.
8. **Channel attenuation controls (CH1–4):** Attenuation controls for the output level of each channel.
9. **Channel status LEDs:** Indicate level as meters for Channels 1, 2, 3, and 4.
10. **System status LEDs:** Indicate system status.
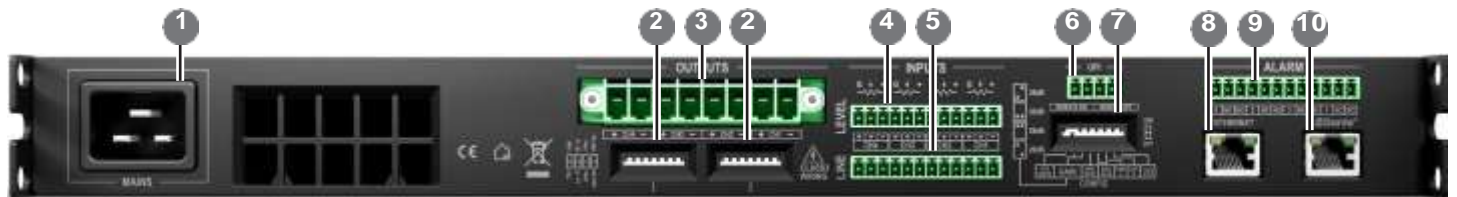


1. **Power input:** Power cord connection.
2. **Channel output DIP switches:** Set any configuration of low- and high-impedance output loads for each channel.
3. **Outputs:** 8-pin connector for loudspeaker connections, up to 1200 watts of power per channel.
4. **Remote level inputs:** Remotely adjust channel level via a linear 10 kΩ potentiometer per channel, in series with the channel attenuation controls.
5. **Analog line inputs:** 12-pin connector for balanced analog line-level audio signals.
6. **GPI/remote inputs:** 4-pin connector for remote on-off control, depending on the power/standby state of the amplifier.
7. **System configuration DIP switches:** Set the overall system output and performance.
8. **Ethernet port:** RJ-45 connector for control via Ethernet connection to a computer using ControlSpace Designer software and not applicable for Dante redundancy.
9. **GPO/alarm outputs:** 12-pin connector for general-purpose output from each channel to indicate a fault, unsafe operating condition, or any fault preventing normal output channel operation.
10. **Dante® port:** RJ-45 connector for 4 Dante audio input streams from a computer using Dante Controller software.
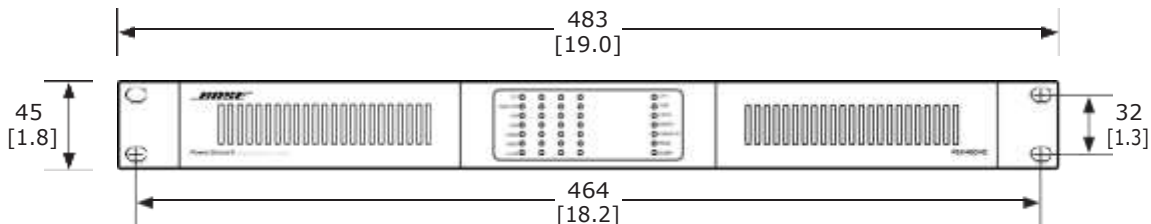
REV DATE: 06-06-2023

# PowerShareX Series
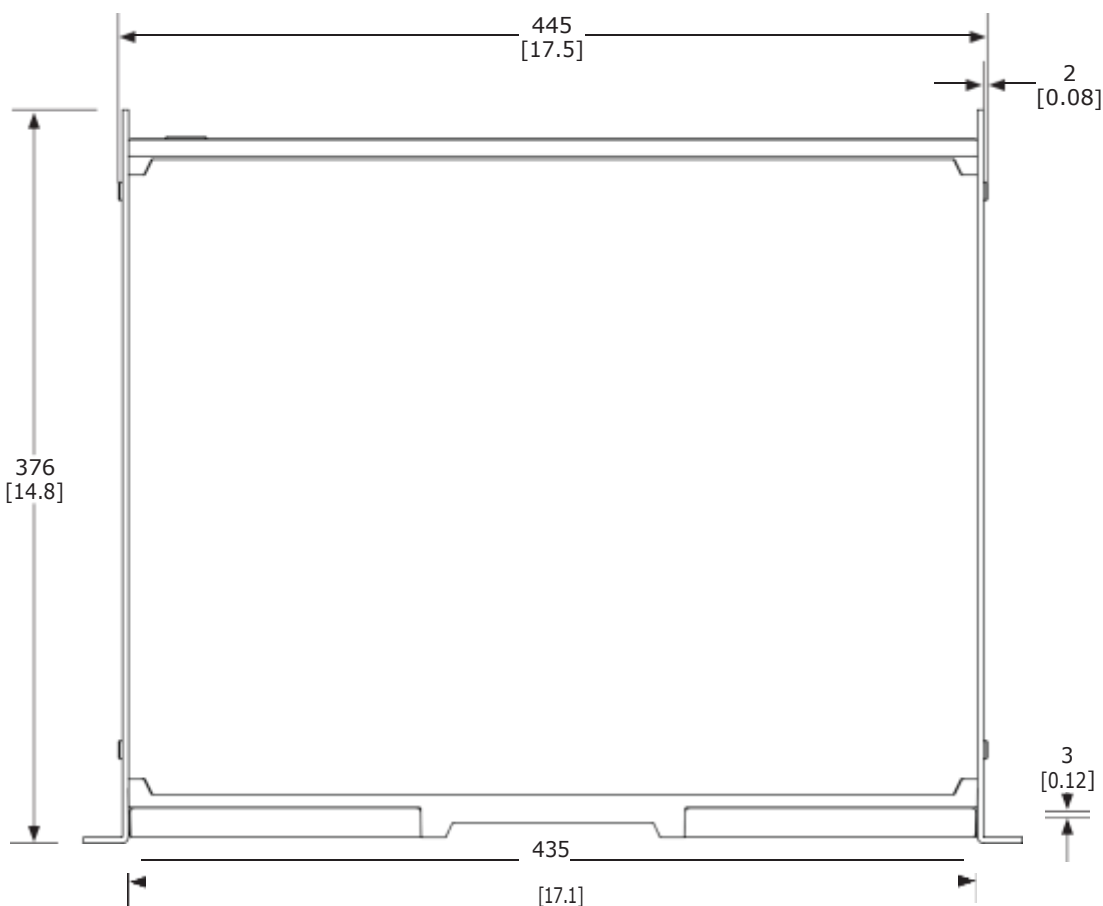adaptable four-channel power amplifiers

## Mechanical Diagrams

### Front View

483
[19.0]

45
[1.8]

32
[1.3]

464
[18.2]

### Rear View

### Top View

445
[17.5]

2
[0.08]

376
[14.8]

3
[0.12]

435

[17.1]

1. DIMENSIONS ARE SHOWN IN MILLIMETERS OVER INCHES.
2. WEIGHT IS APPROXIMATELY 7.0 KILOGRAMS (15.4 POUNDS).

For additional specifications and application information, please visit BoseProfessional.com Specifications subject to change without notice.

REV DATE: 06-06-2023

## Software Details

PowerShareX incorporates digital signal processing that is configured using Bose Professional ControlSpace Designer Version 5.12 software and above. It provides loudspeaker signal processing with presets for Bose Professional loudspeakers. It includes additional processing for Array EQ, time delay, and environmental tuning. As seen, this is the available processing signal flow and processing blocks provided.



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REV DATE: 06-06-2023