

sPower™ Series MediaMatrix®

Smart Power Amplifiers

sPower 6004 | 3008 | 3004 | 1508 | 1504 | 758 | 754

PRELIMINARY



(sPower 3008 model shown)

Description

MediaMatrix® sPower™ Series smart power amplifiers are specifically designed for applications requiring large number of constant voltage, 70 or 100V amplifier channels. Applications include airports, rail networks, subway stations, retail, hospitality and theme parks. The sPower series amplifiers feature Class-D output topology for maximum efficiency and minimal heat dissipation resulting in excellent longevity while not requiring forced air cooling and typical service demands. sPower amplifiers utilize Switch Mode Power Supply (SMPS) for maximum efficiency and regulation of power supply rails delivering full specified power regardless of the A/C power conditions operating anywhere between 85 - 250 Volts.

sPower series amplifiers include external monitoring and control functionality via a back panel multi-drop serial RS485 control port in conjunction with the MediaMatrix nWare™ 3.0 ControlManager software suite. Amplifier status, fault and load monitoring on amplifier output stages incorporate intelligent load limiting based on maximum current conditions. Additionally, loudspeaker loads as low as 5W rated output can also be monitored. All sPower amplifiers are designed to enable the use of intelligent load limiting on amplifier output stage, which prevents the amplifier from being over-driven.

Automated high power change-over relays on the output of each channel are provided where the N/O connection of the relay, available at the rear port of the amplifier, enables any of the internal amplifier channels to act as a back-up in case of primary amplifier channel failure. Alternatively, an external amplifier channel can be used to back-up the primary amplifier channel via the same port without the need to physically relocate the speaker cable circuit.

The sPower series smart power amplifiers come in 7 different variants supporting 4 and 8 channel outputs @ 75, 150 and 300W plus hi-power 600W/Ch x 4 channel model.

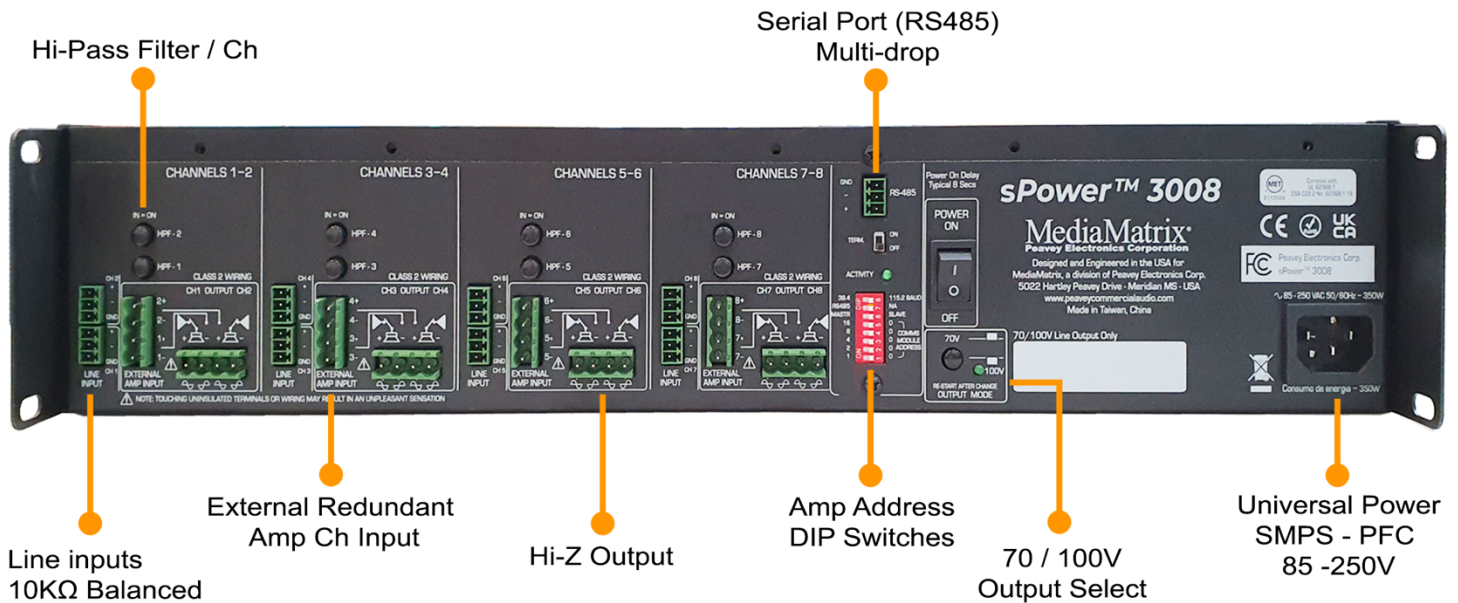
Features

- **4 & 8 Channel amplifier options**
- **Power output ratings supporting:**
 - 75 Watt/Ch
 - 150 Watt/Ch
 - 300 Watt/Ch
 - 600 Watt/Ch (4Ch only)
- **Selectable rated output voltage:**
 - 70v RMS (True 100volts peak)
 - 100v RMS (True 140volts peak)
- **Input impedance = 10K Ohm / Ch balanced**
- **Protection against:**
 - Short circuit
 - Over current
 - Over temperature
 - DC
- **110Hz high pass filter, 12dB/Oct selectable per Ch**
- **Control & monitoring via serial RS485 multi-drop using nWare 3.0 software suite and any MediaMatrix 'S' series DSP or control processor**
- **Automated output change-over Hi-Power relays**
- **Cooling via low volume internal air-exchange**
- **Universal power supply; 85-250 Volts — 43-63Hz**
- **2U rack mountable**

Models

Model	Channels	Total Power Output	Rated Output Voltage (Selectable)
sPower 754	4 Ch	300W	70v or 100v
sPower 758	8 Ch	600W	70v or 100v
sPower 1504	4 Ch	600W	70v or 100v
sPower 1508	8 Ch	1,200W	70v or 100v
sPower 3004	4 Ch	1,200W	70v or 100v
sPower 3008	8 Ch	2,400W	70v or 100v
sPower 6004	4 Ch	2,400W	70v or 100v

sPower™ Series - Smart Power Amplifiers Specifications



INPUT / OUTPUT

- Frequency Response: 20Hz-20kHz (+/-0.5dB), any channel driven, <0.3%THD
- Signal to Noise: >100 dB (A weighted, 20 Hz-20 kHz)
- Sensitivity: 1.22 volts RMS (+4dBu) | 0.3 volts RMS (-8dBu) - full output at min. VCA setting via serial control.
- Input / Imp. / clipping: Euroblock 3.5mm / 10kΩ balanced / +24dBu
- Output: Class-D topology via Euroblock 4pin 5.08mm,
- Redundancy N+1: Automated high power change-over relays per output channel via Euroblock 4pin 5.08mm.

CONTROL

- Serial Control: RS485 multi-drop via euroblock 3 pin 3.5mm with Termination resistor switch
- Amp Address / System: Set via DIP switch panel - supports maximum 64 amplifier channels / system connection
- Baud rate: Selectable via DIP switch @ 38.4k or 115.2k bit per second

MECHANICAL

- Dimensions: W 19" (483mm), D 18.5" (470mm), H 3.5" (88mm) Power Supply: Switch Mode with Power Factor Correction
- Mounting: 2U equipment rack mount Auto ranging 85-250v, 43-63Hz @ 2400W
- Net Weight: 8Ch version - 32 lbs (14.5 kg) **Note:** Fuses for power ranges 100-120v and 220-240v must be selected.
- Operating Temp: - 4 to 122°F (-20 to 50°C) - non condensing

Architect's & Engineer's Specifications

The Multi-Channel Smart Power Amplifier series shall support applications requiring constant voltage, with optionally selectable 70V or 100V output amplifier channels. The amplifier series shall feature a Class-D output topology and ensure minimal heat dissipation for operating longevity using a low volume internal air-exchange with minimal servicing demands. The amplifier series shall utilize a Switch Mode Power Supply (SMPS) for maximum efficiency and regulation of power supply rails delivering full specified power regardless of the A/C power conditions operating anywhere between 85 - 250 Volts. External monitoring and control functionality shall be provided via a back panel multi-drop serial RS485 control port in conjunction with a proprietary software suite allowing for Amplifier monitoring and control. The multi-channel amplifier shall be capable of status, fault and load monitoring on output stages with load limiting on maximum current conditions supporting monitoring of loudspeaker loads as low as 5W rated at any output. The multi-channel amplifier shall be capable of intelligent load limiting on amplifier output stage preventing the amplifier from being over-driven. Automated high power change-over relays shall be provided on the output of each channel where an N/O connection of the relay is available enabling any of the internal amplifier channels to act as a back-up in the event a primary amplifier channel fails. Alternatively additional multi-channel amplifiers can be used to back-up the primary amplifier channel via the same port. The multi-channel amplifier series shall come in a minimum of seven (7) different variants supporting 4 and 8 channel outputs @ 75W, 150W and 300W per Ch plus a higher powered 4 x 600W/Ch variant. The Multi-Channel Smart Power Amplifier series shall be the MediaMatrix sPower Series.