### **Preliminary Specifications**



## SPA Series SPA2-60 | SPA4-60

Low-Z / High-Z Professional Amplifiers

#### **Features**

- Up to 60 watts per channel into 4 and 8 ohms - The outputs of the SPA2-60 and SPA4-60 are designed to provide 60 watts per channel into Low-Z loads
- ENERGY STAR qualified amplifier -The SPA2-60 are SPA4-60 are ENERGY STAR qualified amplifiers; efficient class-D amplifiers that conserve energy and require no active cooling, so they reduce operational costs
- Bridgeable outputs for higher power -Bridging the outputs of the SPA2-60 and SPA4-60 provide up to 200 watts into low impedance, into low impedance, and up to 250 watts into 70V or 100V providing outstanding flexibility
- Auto-Ramp provides quiet startup and power-down - The ENERGY STAR Auto-Ramp circuitry ensures quiet and fast power up from Standby and seamless power-down following 25 minutes of inactivity, dramatically reducing power consumption
- Rack-mountable 1U, half rack width enclosure - The SPA2-60 and SPA4-60 can be mounted in 1/2 RU reducing rack space requirements. In addition their clever joining brackets enable easy under-table and wall-mounting.



The SPA Series amplifiers from QSC are two half rack 1U, convection cooled power amplifiers delivering two or four channels of 60 watts per channel into  $4\Omega$  and  $8\Omega$ . These amps can also be bridged to supply 200 watts into  $4\Omega$  and  $8\Omega$ , and up to 250 watts into 70V or 100V loads making them extremely flexible for Low-Z or High-Z applications. Utilizing an advanced Class-D amplifier design and Universal Power Supply the SPA Series are amazingly efficient allowing them to be convection cooled and are ENERGY STAR qualified with quiet auto-ramp standby functionality. The SPA2-60 and SPA4-60 are housed in an unobtrusive black painted 1/2 RU chassis with unique mounting hardware enabling rack, table and wall mounting capabilities.

#### SPA2-60

The SPA2-60 two channel amplifier delivers 60 watts rms per channel into 4 or 8 ohms; the two channels can also be bridged providing up to 200 watts rms into 4 or 8 ohms. When the channels are bridged they can be switched into 70V or 100V direct drive mode providing up to 250 watts rms into a mono 70V or 100V output. There is also a selectable 80Hz highpass filter for brdged operation ensuring that 70V or 100V loudspeakers transformers are not overdriven and saturated by too much low frequency content. The SPA2-60 is ideal for stereo or mono applications of voice or music audio content.

## SPA4-60

The SPA4-60 four channel amplifier delivers 60 watts rms per channel into 4 or 8 ohms; the four channels can also be bridged in pairs, each pair providing up to 200 watts rms into 4 or 8 ohms. Like the SPA2-60, the bridged channels of the SPA4-60 can be switched into 70V or 100V direct drive mode providing up to 250 watts rms into a 70V or 100V output; each bridged output also features a selectable 80Hz highpass filter. The SPA4-60 is perfect for applications with mixed outputs such as four

low-Z outputs for a mix-minus system, a stereo TV reinforcement system with a 70V or 100V output for ceiling conferencing speakers, a stereo with mono Subwoofer system, or even two sets of 70V or 100V outputs for a zoned system.

# Efficient Amplifier with Auto-Ramp

The SPA Series amplifiers utilize a highly efficient class-D design that conserves energy and requires no active cooling. They are ENERGY STAR qualified so they reduce operational costs. The auto-ramp Standby functionality is quiet with no audible pops or clicks when going into or coming out of Standby. The SPA2-60 consumes just 5 watts in Idle and less than 1 watt when in Standby, while the SPA4-60 consumes 10 watts in Idle, but still less than 1 watt in Standby.

## Amplifier Protection

QSC has long been known as a company that makes robust products; it is not uncommon to find installations with fully operational QSC amplifiers that are decades old. With that sort of history, the SPA amplifiers would not be complete without extensive self protection schemes. Both amplifiers have internal thermal and peak limiting circuits ensuring continued operation for years to come.

#### **Remote Control and Mounting**

The SPA2 and the SPA4 offer general purpose inputs for remote Volume and Standby control for applications requiring external adjustment. They also come with multiple mounting options. Every SPA amplifier comes with a complete mounting kit allowing it to be rack mounted by itself or with a second unit in a 1RU space. Included connecting brackets provide additional strength when rack mounting two amps together, but also make for simple under-table or wall mounting (like behind a TV).



	SPA2-60	SPA4-60	
Stereo Mode (both channels driven) $8\Omega$ $4\Omega$	60 W 60 W	60 W 60 W	
<b>Bridged Outputs</b> 8Ω & 4Ω 70V 100V	200 W 250 W 250 W	200 W 250 W 250 W	
Frequency Response	20 Hz - 20 KHz +/- 0.1 dB	20 Hz - 20 KHz +/- 0.1 dB	
Signal to Noise (20 Hz - 20 KHz)	>100 dB	>100 dB	
Input Sensitivity at 8Ω	1.23V (+4 dBu)	1.23V (+4 dBu)	
Gain at 8Ω	25.0 dB	25.0 dB	
Output Circuitry	Class D	Class D	
Input Impedance	>10k, balanced or unbalanced	>10k, balanced or unbalanced	
Maximum Input Level	12.3V (+24 dBu)	12.3V (+24 dBu)	
Cooling	Convection	Convection	
Input Connectors	3.5 mm	3.5 mm	
GPIO Connectors	3.5 mm	3.5 mm	
Output Connectors	5 mm	5 mm	
Front Pane Indicators	Power, per channel Signal, per channel Protect/Limit		
Rear Panel Indicators	Bi-Color LED Signal/Protect/Limit per channel		
Controls	$4\Omega/8\Omega/70V$ Bridged Highpass On/100V Bridged Highpass On per channel pair		
General Purpose Inputs	Remote Volume, Remote Standby, on 3.5 mm connectors		
Highpass Filter	Switchable 80Hz when Bridged in 70V & 100V		
Dimensions	1.7" x 8.7" x 9.5" (43 mm x 220 mm x 241 mm)		
Net Weight	2.5 lb (1.1 kg)		
Shipping Weight	5 lb (3 kg)		
Power Requirements	Universal Power supply 100 - 240 VAC, 50 - 60 Hz		
Agency Approvals	UL, CE, Energy Star, RoHS/WEEE compliant, FCC Class B (Conducted and Radiated emmissions), UL 2043 with PL-KIT		
Carton Contents	IEC Cable, Quick Start Guide, Connector Pack, Rack Mount Ears, Mounting Brackets		
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Specifications subject to change without notice.



