



## CXD Series

### CXD4.2 | CXD4.3 | CXD4.5

#### Multi-Channel System Processing Amplifiers

#### Features

- Total power up to 5,000 watts with 70V and 100V direct drive on the CXD4.3 and CXD4.5.
- Flexible Amplifier Summing Technology™ (FAST) drives most any loudspeaker system or configuration by distributing total amplifier power across one, two, three or all four channels.
- Full function onboard loudspeaker processing DSP with Crossover and Parametric EQ Filters, Limiting and Alignment Delay eliminate the need for outboard loudspeaker processors.
- PowerLight universal switchmode power supply with PFC for highest efficiency, improved audio performance, and low heat dissipation.
- Preset Wizard simplifies amplifier setup providing system design tools and loudspeaker selection from a list of speakers.
- Powerful Intrinsic Correction™ processing maximizes the sonic performance of QSC loudspeakers.
- 20 Factory Preset configurations that can be modified and stored in the 50 User Presets.
- Integrated front panel with channel Select and Mute buttons, Input and Output LED Metering, 400x240 LCD, intuitive navigation buttons, LED power button and indicator, and cast aluminum handles.
- GPIO for additional functionality including a heartbeat output for Life-Safety supervision.
- Four Input Euroblock connectors, and four Euroblock touch-proof Speaker connectors.

The QSC CXD Series represents a revolutionary advancement in amplifier technology and innovation. Designed specifically for the needs of integrators, CXD provides efficient, robust and extraordinarily high fidelity power to drive multiple channels and configurations of loudspeakers while simultaneously deploying sophisticated digital processing – all with optimal energy and rack space efficiency. The CXD Series consists of three powerful, four-channel amplifiers, each with onboard DSP, and the capability to configure and combine channels in various ways to drive a wide range of loudspeaker systems including 70V and 100V without the use of transformers. These amplifiers not only provide the power and processing to make your system perform better, they offer outstanding efficiency ensuring that energy costs will be kept to a minimum over the life of the installation.

#### Flexible Amplifier Summing Technology™ (FAST)

CXD amplifiers feature Flexible Amplifier Summing Technology™ (FAST) that actively distributes the total amplifier power in various configurations across one, two, three or all four outputs. On the CXD4.3 and CXD4.5, this power can also be used to drive 70V or 100V speaker lines directly from any one or all of the four outputs. This flexibility allows CXD Series amplifiers to drive (for example) two full-range surface mounted speakers along with a subwoofer and one 100V distributed speaker line; or a high-power subwoofer and a bi-amplified full-range loudspeaker; three 70V distributed speaker lines and a low impedance surface mount speaker line; or a single high-power channel driving monster subwoofers.

#### Power Efficiency

CXD Series amplifiers use QSC's next generation class-D power amp design in combination with a custom power stage utilizing a new output device. These purpose built MOSFET devices provide high voltage operation without needing a full bridge output and offer better audio quality and thermal performance due to co-location of the semiconductors.

CXD amplifiers benefit from the proven PowerLight power supply, made even better with Power Factor Correction (PFC) that aligns the current waveform with the AC mains voltage waveform. PFC enables CXD

Series amps to draw current from the wall in a more efficient and controlled manner resulting in incredible power from a single standard AC breaker.

CXD amplifiers also incorporate several energy conservation and efficiency strategies. One such tool is the unique multi-stage sleep mode that saves energy when possible without sacrificing performance.

#### System Processing

A single CXD Series amplifier is more than just an amplifier. It is also a capable and sophisticated loudspeaker processor. Integration of DSP and amplification means that the processor knows exactly what the amplifier is doing, allowing the dynamics processing and protection circuitry to be far more accurate and effective. This synergistic approach employs both RMS and Peak Limiters that provide the amplifier and loudspeaker combination to produce more output without being pushed to distortion or destruction.

The onboard DSP offers four channels of crossover filters, parametric EQ, alignment delay and dynamics processing - everything needed to optimize a loudspeaker system. Additionally when using QSC loudspeakers, the CXD amplifiers offer Intrinsic Correction™, a combination of Filtering, Limiting and speaker processing first developed for our WideLine line array loudspeakers, that compensates for the non-linearities in array and horn design, resulting in exceptional performance.

#### Space Efficient

With four channels of amplification plus signal processing in just 2RU, the CXD series replaces equipment taking up as much as three times the rack-space.

#### Simplicity and Control

The on-board processing is managed and stored as presets, with 20 modifiable factory presets for the most common applications. A Preset Wizard is also available that simplifies amplifier setup and enables selection of loudspeakers. With an intuitive front panel UI, programming is a breeze. The CXD amplifiers also offer GPIO for system supervision and the ability to utilize contact closures to set the amps into standby or recall specific presets. With a host of integration features the CXD amplifiers are perfect for your application.

# CXD Details

|                                 | CXD4.2   |            | CXD4.3  |            | CXD4.5  |            |
|---------------------------------|--|------------|---|------------|---|------------|
| 4 Ch.                           | Burst  | Continuous | Burst   | Continuous | Burst   | Continuous |
| 100 Vrms                        | N/A  | N/A        | N/A   | 500        | N/A   | 1000       |
| 70 Vrms                         | N/A  | N/A        | N/A   | 625        | N/A   | 1250       |
| 8Ω                              | 500 Watts  | 400 Watts  | 900 Watts   | 625 Watts  | 1200 Watts  | 1150 Watts |
| 4Ω                              | 700 Watts  | 400 Watts  | 1400 Watts  | 625 Watts  | 2000 Watts  | 1250 Watts |
| 2Ω                              | 600 Watts  | 350 Watts  | 1200 Watts  | 625 Watts  | 1600 Watts  | 625 Watts  |
| 2 Ch.                           | Burst  | Continuous | Burst   | Continuous | Burst   | Continuous |
| 8Ω                              | 1200 Watts   | 800 Watts  | 2400 Watts  | 1250 Watts | 4000 Watts  | 2250 Watts |
| 4Ω                              | 1500 Watts   | 800 Watts  | 2000 Watts  | 1250 Watts | 2400 Watts  | 2250 Watts |
| 2Ω                              | 1500 Watts   | 650 Watts  | 2500 Watts  | 1250 Watts | 4000 Watts  | 2100 Watts |
| 1 Ch.                           | Burst  | Continuous | Burst   | Continuous | Burst   | Continuous |
| 8Ω                              | 1600 Watts   | 1500 Watts | 3500 Watts  | 2500 Watts | 4500 Watts  | 4200 Watts |
| 4Ω                              | 2500 Watts   | 1600 Watts | 5000 Watts  | 2500 Watts | 7500 Watts  | 4200 Watts |
| 2Ω                              | 1700 Watts   | 1600 Watts | 3500 Watts  | 2500 Watts | 4500 Watts  | 4250 Watts |
| 1Ω                              | 2500 Watts   | 1600 Watts | 5000 Watts  | 2500 Watts | 7500 Watts  | 3700 Watts |
| Typical Distortion              |  |            |   |            |   |            |
| 8Ω                              | 0.01 - 0.03%   |            | 0.01 - 0.03%  |            | 0.01 - 0.03%  |            |
| 4Ω                              | 0.03 - 0.06%   |            | 0.03 - 0.06%  |            | 0.03 - 0.06%  |            |
| Maximum Distortion              |  |            |   |            |   |            |
| 4Ω - 8Ω                         | 1.0%   |            | 1.0%  |            | 1.0%  |            |
| Frequency response (8Ω)         | 20 Hz - 15 kHz +/- 0.2 dB<br>20 Hz - 20 kHz +0.2 dB / -0.7 dB  |            | 20 Hz - 15 kHz +/- 0.2 dB<br>20 Hz - 20 kHz +0.2 dB / -0.7 dB |            | 20 Hz - 15 kHz +/- 0.2 dB<br>20 Hz - 20 kHz +0.2 dB / -0.7 dB |            |
| Noise                           |  |            |   |            |   |            |
| Unweighted Output Unmuted       | -101 dB  |            | -101 dB   |            | -101 dB   |            |
| Weighted Output Muted           | -109 dB  |            | -109 dB   |            | -109 dB   |            |
| Gain (1.2V setting)             | 34.0 dB  |            | 38.4 dB   |            | 38.4 dB   |            |
| Damping factor                  | >150   |            | >150  |            | >150  |            |
| Input impedance                 | >10k, balanced or unbalanced   |            | >10k, balanced or unbalanced                                  |            | >10k, balanced or unbalanced                                  |            |
| Maximum input level             |  |            |   |            |   |            |
| (3.9V setting)                  | 12.28V (+24 dBu)   |            | 12.28V (+24 dBu)  |            | 12.28V (+24 dBu)  |            |
| (1.2V setting)                  | 3.88V (+14 dBu)  |            | 3.88V (+14 dBu)   |            | 3.88V (+14 dBu)   |            |
| Controls and indicators (front) | Power • Channel MUTE Buttons • Channel SELECT Buttons • Channel Input Signal and CLIP LED Indicators • Channel Output and LIMIT LED Meters • HOME, ENTER, EXIT, GAIN Navigation Buttons • Control Knob |            |   |            |   |            |
| Controls and indicators (rear)  | AC Power Disconnect  |            | AC Power Disconnect   |            | AC Power Disconnect   |            |
| Input connectors                | 3-pin Euroblock  |            | 3-pin Euroblock   |            | 3-pin Euroblock   |            |
| Output connectors               | 2-pin Euroblock Speaker  |            | 2-pin Euroblock Speaker                                       |            | 2-pin Euroblock Speaker                                       |            |
| Amplifier and load protection   | Short circuit, open circuit, thermal, RF protection. On/Off muting, DC fault shutdown, active inrush limiting, input current limiting  |            |   |            |   |            |
| AC Power Input                  | Universal Power Supply 100 - 240 VAC, 50 - 60 Hz   |            |   |            |   |            |
| Dimensions (HWD)                | 3.5" x 19" x 12"<br>(89mm x 482mm x 305mm)   |            | 3.5" x 19" x 16"<br>(89mm x 482mm x 406mm)                    |            | 3.5" x 19" x 16"<br>(89mm x 482mm x 406mm)                    |            |
| Weight, Net / Shipping          | 18.5 lb (8.4 kg) / 22 lb (10.0 kg)   |            | 21.0 lb (9.5 kg) / 25 lb (11.3 kg)                            |            | 22.0 lb (10.0 kg) / 26 lb (11.8 kg)                           |            |
| Agency approvals                | UL, CE, RoHS/WEEE compliant, FCC Class A (conducted and radiated emissions)  |            |   |            |   |            |
| Carton contents                 | Locking IEC Cable, Quick Start Guide, USB Cable  |            |   |            |   |            |

Burst Power - 20 ms 1 kHz sine burst, all channels driven  
 Continuous Power - EIA 1 kHz 1% THD, all channels driven

Specifications subject to change without notice.



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