



## RMXa Series

### RMX 850a | RMX 1450a | RMX 2450a | RMX 4050a | RMX 5050a

#### Professional Power Amplifiers

##### Features

- Professional quality performance—incorporates road-proven QSC designs
- The 4000 watt RMX 4050a operates on a standard 15 amp plug (120V)
- Both the RMX 4050a and RMX 5050a feature a dual mono, high-current power supply for increased reliability and performance
- The RMX 4050a provides improved thermal performance yielding higher continuous power in 2 ohm stereo or 4 ohm bridged applications.
- Compact size — up to 2500 watts in 2 rack spaces or 5000 watts in 3 rack spaces
- High-current toroidal transformers for greater 2 ohm power and low noise
- Independent user-defeatable clip limiters reduce distortion
- Selectable low-frequency filters (30 Hz or 50 Hz) protect speakers and increase headroom
- Balanced 1/4" (6.3 mm) TRS, XLR, and barrier strip inputs
- Touch-proof binding post and Neutrik Speakon® outputs
- Front mounted gain controls for easy access
- Signal and Clip LED indicators to monitor performance
- Independent DC and thermal overload protection on each channel automatically protects amplifier and speakers
- 3-year warranty plus optional 3-year extended service contract

### RMX 850a | RMX 1450a | RMX 2450a | RMX 4050a | RMX 5050a



The RMXa Series amplifiers from QSC offer true professional-quality performance at an affordable price. Three 2-rackspace models range in power from 430 to 1200 watts per channel at 2 ohms. Two 3-rackspace models provide 2000 to 2500 watts per channel at 2 ohms. All five models feature a compact chassis less than 16" deep. RMXa amplifiers include a comprehensive set of features including XLR and 1/4" balanced inputs, Speakon® and binding post outposts for convenient connectivity. User-defeatable clip limiters and selectable low-frequency filters optimize sonic performance.

#### RMX 5050a

QSC's RMX 5050a power amplifier represents state-of-the-art in professional quality performance at an affordable price. Perfectly suited for a wide range of

sound reinforcement applications including professional touring, performing musicians, and mobile entertainers, the RMX 5050a is optimized to deliver high levels of sustained power, extraordinary audio performance and road-proven reliability.

#### RMX 4050a

The RMX 4050a is a "heavy duty" model designed to work as hard into 2 ohm loads as most competing amplifiers will at 4 ohms.

Both the RMX 5050a and RMX 4050a feature a three-tier, Class H design that is extremely efficient at real world power levels. Less AC current is wasted and more available current goes into producing useful audio power. 120 volt versions of the RMX4050a accomplish all this with a standard 15 amp plug.

#### RMX Power Amplifiers

| Model     | Watts per channel |       |      |             |
|-----------|-------------------|-------|------|-------------|
|           | 8Ω                | 4Ω    | 2Ω*  | Bridged 4Ω* |
| RMX 850a  | 200               | 300   | 430  | 830         |
| RMX 1450a | 300               | 500   | 700  | 1400        |
| RMX 2450a | 500               | 800   | 1200 | 2400        |
| RMX 4050a | 850               | 1400  | 2000 | 4000        |
| RMX 5050a | 1100              | 2000* | 2500 | 5000        |

8 ohms: 0.1% THD, 4 ohms: 0.5% THD, 2 ohms and 4 ohms bridged: 1 kHz, 1% THD

## RMXa Details

|                                         | RMX 850a                                                                                                                                     | RMX 1450a        | RMX 2450a         | RMX 4050a                            | RMX 5050a        |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------|--------------------------------------|------------------|
| Stereo Mode (both channels driven)      |                                                                                                                                              |                  |                   |                                      |                  |
| 8Ω / FTC 20 Hz – 20 kHz / 0.1% THD      | 185 W                                                                                                                                        | 260 W            | 450 W             | 800 (650**) W                        | 1050 W           |
| 8Ω / EIA 1 kHz / 0.1% THD               | 200 W                                                                                                                                        | 300 W            | 500 W             | 850 W                                | 1100 W           |
| 4Ω / FTC 20 Hz – 20 kHz / 0.1% THD      | 280 W                                                                                                                                        | 400 W            | 650 W             | 1300 W                               | 1600 W           |
| 4Ω / EIA 1 kHz / 0.1% THD               | 300 W                                                                                                                                        | 500 W (0.5% THD) | 750 W             | 1400 W                               | 1800 W           |
| 2Ω / FTC 20 Hz – 20 kHz / 1% THD        | –                                                                                                                                            | –                | –                 | 1600 W                               | 2000 W           |
| 2Ω / EIA 1 kHz / 1% THD                 | 430 W                                                                                                                                        | 700 W            | 1200 W            | 2000 W                               | 2500 W           |
| Bridge-Mono Mode                        |                                                                                                                                              |                  |                   |                                      |                  |
| 8Ω / FTC 20 Hz – 20 kHz / 0.1% THD      | 530 W                                                                                                                                        | 800 W            | 1300 W            | 2600 W                               | 3200 W           |
| 8Ω / EIA 1 kHz / 0.1% THD               | 600 W                                                                                                                                        | 900 W            | 1500 W            | 2800 W                               | 3600 W           |
| 4Ω / EIA 1 kHz / 1% THD                 | 830 W                                                                                                                                        | 1400 W           | 2400 W            | 4000 W                               | 5000 W           |
| Signal to Noise (20 Hz – 20 kHz) 8Ω     | > -100 dB                                                                                                                                    | > -100 dB        | > -100 dB         | > -100 dB                            | > -100 dB        |
| Distortion (SMPTE-IM)                   | < 0.01%                                                                                                                                      | < 0.01%          | < 0.02%           | < 0.02%                              | < 0.02%          |
| Input Sensitivity at 8Ω                 | 1.15V (+3.4 dBu)                                                                                                                             | 1.15V (+3.4 dBu) | 1.23V (+4.0 dBu)  | 1.42V (+5.3 dBu)                     | 1.42V (+5.3 dBu) |
| Voltage Gain                            | 31.6x (30 dB)                                                                                                                                | 40x (32 dB)      | 50x (34 dB)       | 64x (36 dB)                          | 64x (36 dB)      |
| Output Circuitry                        | Class AB                                                                                                                                     | Class AB         | 2-tier Class H    | 3-tier Class H                       | 3-tier Class H   |
| Power Requirements                      |                                                                                                                                              |                  |                   |                                      |                  |
| Typical, 1/8 power pink noise at 4Ω*    | 4.5 A                                                                                                                                        | 6.0 A            | 6.3 A             | 10.0 A                               | 13.9 A           |
| Severe, 1/3 power pink noise at 4Ω*     | 6.6 A                                                                                                                                        | 9.6 A            | 15.6 A            | 20.1 A                               | 26.9 A           |
| Supplied Plug Type, 100/120V            | NEMA 5-15                                                                                                                                    | NEMA 5-15        | NEMA 5-15         | NEMA 5-15                            | NEMA 5-20        |
| Supplied Plug Type, 230V                | CEE7/7                                                                                                                                       | CEE7/7           | CEE7/7            | CEE7/7                               | CEE7/7           |
| Weight                                  |                                                                                                                                              |                  |                   |                                      |                  |
| Net                                     | 35 lb (15.9 kg)                                                                                                                              | 40 lb (18.2 kg)  | 44.5 lb (20.2 kg) | 68 lb (30.8 kg)                      | 75 lb (33.1 kg)  |
| Shipping                                | 41 lb (18.6 kg)                                                                                                                              | 46 lb (20.9 kg)  | 50.5 lb (23 kg)   | 77 lb (34.9 kg)                      | 87 lb (37.2 kg)  |
| Distortion (typical)                    |                                                                                                                                              |                  |                   |                                      |                  |
| 20 Hz – 20 kHz: 10 dB below rated power | < 0.03% THD / 4Ω and 8Ω                                                                                                                      |                  |                   | < 0.02% THD / 4Ω and 8Ω              |                  |
| 1.0 kHz and below: full rated power     | < 0.03% THD / 4Ω and 8Ω                                                                                                                      |                  |                   | < 0.02% THD / 4Ω and 8Ω              |                  |
| Frequency Response                      | 20 Hz – 20 kHz: +0/-1 dB    -3 dB points: 5 Hz and 50 kHz (LF filter bypassed / 8Ω)                                                          |                  |                   |                                      |                  |
| Damping Factor (1 kHz and below)        | > 300 at 8Ω                                                                                                                                  |                  |                   | > 250 at 8Ω                          |                  |
| Input Impedance                         | 10k ohms unbalanced / 20k ohms balanced                                                                                                      |                  |                   |                                      |                  |
| Input Clipping                          | 10 Vrms (+22 dBu)                                                                                                                            |                  |                   | 6.4 Vrms (+18 dBu)                   |                  |
| Cooling                                 | Continuously variable speed fan, back-to-front air flow                                                                                      |                  |                   |                                      |                  |
| Connectors (each channel)               | Input: Active balanced / 3-pin Euro-style detachable terminal block and XLR (pin 2+)<br>Output: Touch-proof binding posts / Neutrik Speakon® |                  |                   |                                      |                  |
| Controls                                | Front: AC switch / Ch. 1 & 2 gain knobs<br>Rear: 10-position DIP switch                                                                      |                  |                   |                                      |                  |
| Indicators                              | Power-on: Green LED / Signal: Yellow LED (1 per channel) / Clip: Red LED (1 per channel)   Protect: Red LED                                  |                  |                   |                                      |                  |
| Amplifier Protection                    | Full short circuit, open circuit, thermal, ultrasonic, RF protection. Stable into reactive or mismatched loads                               |                  |                   |                                      |                  |
| Load Protection                         | Turn-on/off muting / AC coupling (850, 1450) / Triac crowbar (1850HD, 2450, 4050HD, 5050) on each channel                                    |                  |                   |                                      |                  |
| Dimensions                              | 3.5" (8.9 cm) tall / 2 rack spaces                                                                                                           |                  |                   | 5.25" (13.3 cm) tall / 3 rack spaces |                  |
| Power Requirements                      | 100, 120, 230 VAC, 50 – 60 Hz (factory configured)                                                                                           |                  |                   |                                      |                  |

\* 1.0 kHz sine wave, 1% THD, 1 channel driven

Specifications subject to change without notice.



1675 MacArthur Boulevard • Costa Mesa, CA 92626 • Ph: 800/854-4079 or 714/957-7100 • Fax: 714/754-6174

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