

# **Series**Network Audio Power Amplifier

### **DELTA 80**



Delta Series offers the assurance of MC<sup>2</sup>'s highest quality audio power amp technology with future proofing via the inclusion of simple to use digital audio networking.

A rear panel switch allows the amplifier to accept either four channels of analogue audio or pick up four channels of networked audio, via Dante, which is then converted using 24 bit 96kHz ADCs.

Running cool in even the most difficult conditions, the Delta 80 can deliver 4 x 2000W into 4 ohms with all channels driven, and an substantial 2 x 4000W bridged (4R), with outstanding distortion and noise figures right up to maximum output. This power is maintained even with reduced mains voltages thanks to generous limiter headroom.

Connect to a Delta DSP amplifier using a single CAT5 cable to realise a stereo 4 way system with no further external processing required. Switch back to analogue to use as a powerful traditional quad channel amplifier.

Run bridged channel pairs or link adjacent inputs for total flexibility in either analogue or digital mode.

#### Main Specifications

Output Power (per channel): 8 ohms: 975W, 4/2.7/2 ohms: 2000W\*

Measured using continuous music with Crest Factor of 4.8 (14dB)

Output Power (bridged): 8 ohms: 4000W

Measured using continuous music with Crest Factor of 4.8 (14dB)

**THD:** (@1dB below maximum output power) @ 1kHz<0.18%, 20Hz to 20kHz<0.2% **Gain / Sensitivity:** Gain 32dB Sensitivity (for maximum power)+8.3dBu (2.0V)

Frequency Response: 20Hz to 20kHz (±0.5dB)

Power Consumption: Nominal @ 240V into 4 ohms 4.1A, nominal @120V into 4 ohms 8.2A

**Dimensions:** Amplifier (2U) (mm) 88(h) x 482(w) x 428(d)

Boxed (shipping size - UK) 230 x 580 x 560 (Single boxed)

Boxed (shipping size - all except UK) 250 x 610 x 600 (Double boxed)

Weight: Amplifier 11.0kg (22.3lbs), Boxed (shipping weight) 13.0kg (28.7lbs)

## Additional Specifications

Input Impedance: 20k ohms (Active balanced)

**Input CMRR:** > 60dB **Damping Factor:** >400 (8 ohms / 1kHz)

**Input Sources:** 4 x Analogue, 4 x Networked Audio (Switchable in bank of 4) **Signal Limiters:** Operate at maximum power to prevent excessive clipping

Protection: Output short circuit, DC; Over-temperature; Mains in-rush control, over voltage, over current.

Output Power(per channel):

Continuous music (with Crest Factor of 2.8 (9dB)): 950W (8R), 1850W (4R), 2050W (2.7R) Continuous music (with Crest Factor of 4.8 (14dB)): 975W(8R), 1900W(4R), 2100W(2.7R) Continuous music (with Crest Factor of 7.8 (18dB)): 1000W(8R), 1950W (4R), 2150W (2.7R)

For details of Power measurement methods please refer to the Technical Support area of our website.
\*2.7 ohm power quoted for highest single ended output and greatest efficiency (3 x 8 ohm parallel drivers). Amplifier is stable with 2 ohm loads but output will be reduced.



ELTA 80

Network Audio Power Amplifier

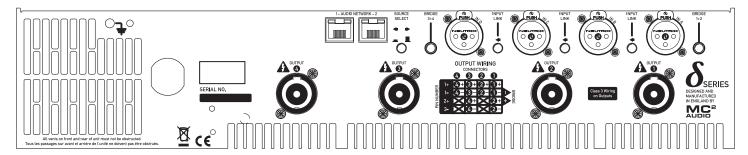
DELTA 80

#### 

#### **Power Consumption** & Thermal Emissions

Mains (V)	Load (R)	No Sig'l	Current Light	Draw (A) Average	Heavy	The No Sig'l		nissions (V Average	
240	8	0.7	1.3	2.6	5.7	317	190	245	384
240	4	0.7	2.0	4.1	9.6	317	215	314	556
240	2	0.7	1.8	3.3	6.8	317	207	275	433
120	8	1.4	2.6	5.2	11.4	317	190	245	384
120	4	1.4	4.0	8.2	19.2	317	215	314	556
120	2	1.4	3.6	6.6	13.6	317	207	275	433

No Sig'l = Quiescent, Light = Crest Factor of 7.8[18dB], Average = Crest Factor of 4.8[14dB], Heavy = Crest Factor of 2.8[9dB] For details of measurement methods please refer to the Technical Support area of our website.



#### Controls, Indicators & Connectors

Front Panel: 1 x Power Switch, 1 x STBY LED (orange)

4 x 6 point LED level indicators, 4 x level controls

3 x Channel Audio LINK LEDs (yellow)

1 x PROTECTION LED(red), 2 x BRIDGE LEDs (green)

1 x POWER LED, 1 x ANALOGUE LED, 1 x NETWORK AUDIO LED (3 x yellow)

**Rear Panel:** 4 x Neutrik Speakon output connectors (4 pole)

4 x Neutrik XLR female connectors (audio input)

2 x Ethernet RJ45 (Audio Network)\*

3 x Channel Link Switches 2 x Bridge Mode Switches

1 x Analogue/Network Audio Source Select Switch

Captive mains cable

\*Dante Audio Network is a factory fit option

#### Architect's and **Engineer's Specification**

The power amplifier shall be a 4 channel class D design with a minimum guaranteed power of 2000W into 4R (20Hz to 20kHz). THD shall be better than 0.18% (20Hz to 20kHz). The minimum load shall be 2R, and 4R in bridge mode. Input sensitivity shall be 8.3dBu for full power output. Frequency response shall be 20Hz to 20kHz (±0.5dB).

The front panel shall have individual input level controls each with a 6 point LED meter showing output level and onset of limiting. A front panel non-isolating main power switch shall be fitted. The rear panel shall have outputs on Neutrik Speakon connectors, with two being wired to allow channel pairs to be accessed from a single plug (4 pole).

The audio inputs shall be on Neutrik 3 pole XLR connectors. Mode switching between stereo/bridge shall be on the rear panel, per channel pair (1&2, 3&4). Inputs to channels shall be linkable

via 3 channel link switches, with corresponding indication on the front panel.

The amplifier shall accept analogue or networked audio if fitted with the optional Dante network audio card with global source switching across all four channels on the rear panel and front panel

The amplifier shall be 2U, 19" rackmount in format with dimensions of 8.8cm X 48cm X 43cm and a weight of 9.4kg. AC mains supply shall be switchable between 120V[60Hz] and 240V[50Hz]. The amplifier shall be designated the MC<sup>2</sup> Delta 80.

