

# iK42

## High Power, Four-Channel Class D Amplifier

### Features

- Four channels of efficient Class D amplification
- Very high power density in 2U rack height
- Up to 20,000 Watts total power output, depending on load impedance
- High performance 96kHz DSP on all inputs and outputs
- Switch mode power supply
- Global mains operation, 85V to 240V auto-sensing
- Intuitive, user-friendly, front panel interface
- Analogue, AES3 and Dante™ digital audio network inputs
- Ethernet network for system operation, control and monitoring via Martin Audio VU-NET™ software
- Comprehensive protection and monitoring functions
- LIR linear phase crossovers for FIR-like performance with lower latency



### Applications

- Dedicated system amplifier for Martin Audio Wavefront Precision Series and XE Monitor Series
- Versatile multi-channel amplification for Martin Audio loudspeaker systems

The iKON iK42 is an advanced 4-channel power amplifier which combines very high power density with superb audio performance, state-of-the-art DSP and network control. A dedicated controller amplifier for Martin Audio Wavefront Precision line arrays and XE Series stage monitors, the iK42 can also provide multi-channel amplification across the Martin Audio loudspeaker range.

The iK42 can deliver a full 5000 watts per channel into 2 ohms with all channels driven while remaining highly efficient. Its high efficiency reduces the energy drawn from the mains supply and ensures the power reserves needed to deliver superb sound under arduous live conditions.

Ethernet is used for system remote control and monitoring via Martin Audio's VU-NET software application, while a user-

friendly front panel interface allows full local control of all features. Dante digital audio network inputs are also provided for digital audio distribution and control.

96kHz DSP is fully integrated into the iK42 to provide a multitude of features, including LIR linear phase crossover filters which have lower latency than FIR filters. The iK42 employs comprehensive protection functions to maintain safe operating conditions of both the amplifier and the loudspeakers driven — including a sophisticated loudspeaker limiter suite which incorporates peak, RMS and excursion limiting, as well as multiband limiting for passive 2-way systems.

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### Technical Specifications

#### General

TYPE	Four-channel Class D amplifier
TOTAL OUTPUT POWER	20,000 Watts RMS, all channels driven
DIGITAL SIGNAL PROCESSING	96kHz DSP on all inputs and outputs
COOLING	Dual vari-speed fans, front-to-back airflow
MAXIMUM AMBIENT TEMPERATURE	40°C (104°F)

#### Audio Inputs/Outputs

ANALOGUE IN/LINK (4 CHANNELS)	4 x female, 4 x male Neutrik™ XLR
ANALOGUE INPUT IMPEDANCE	20kΩ balanced to ground
MAXIMUM ANALOGUE INPUT LEVEL	+20dBu
NOMINAL SYSTEM GAIN	32dB
AES3 IN/LINK (2 CHANNELS)	1 x female, 1 x male Neutrik™ XLR, balanced
DANTE™ (4 CHANNELS)	2 x shielded RJ45, primary and secondary
AMPLIFIER OUTPUTS	4 x Neutrik Speakon™ NL4

#### Control and Monitoring Network

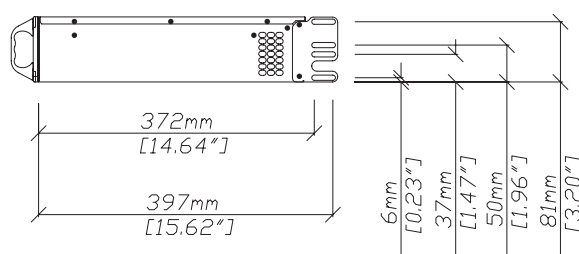
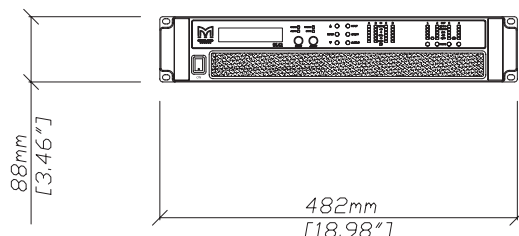
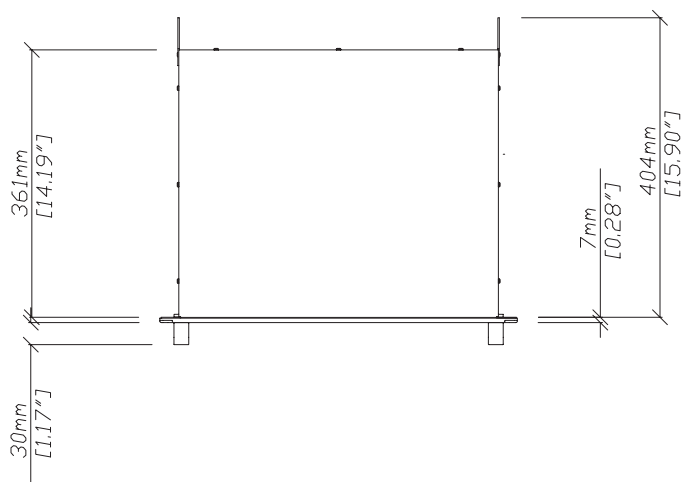
PROTOCOL	Ethernet
CONTROL APPLICATION	Martin Audio VU-NET™

#### Power Supply

TYPE	High performance Series Resonant
AC INPUT OPERATING RANGE	85 – 240V ~ AC, 47 - 63Hz
MAINS INRUSH CURRENT	6A at 15V, 12A at 230V (max for <10ms)
MAINS CONNECTOR	Neutrik 32A Powercon™

#### Physical

DIMENSIONS	(W) 483 x (H) 2U/89mm x (D) 357mm (W) 19in x (H) 2U/3.5in x (D) 14.1in incl handles and optional rear support
WEIGHT	12.5kg (27.5lbs)



#### Trade Descriptions Act

Due to Martin Audio's policy of continuing improvement, we reserve the right to alter these specifications without prior notice. Martin Audio is committed to refining state of the art sound reinforcement, combining in-depth product and field applications research with advanced manufacturing techniques. Every Martin Audio product is built to the highest manufacturing standards and rigorously tested to ensure that it meets the performance criteria specified in the design.

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