I/O Interfaces

PRO SERIES
DL155

16 Input, 16 Output Stage Box with
8 MIDAS Microphone Preamplifiers and
AES3 Digital Interface

- 8 award-winning MIDAS microphone preamplifiers with switchable +48 V phantom power

- 8 AES3 (AES/EBU) digital inputs and outputs

- 8 electronically balanced low impedance line level outputs

- Remote operation up to 100 m via CAT5/5e cable

- Selectable 96 kHz or 48 kHz sample rate operation

- All settings programmable from front panel controls or console

- PSU status indicator LEDs and configuration LCD display on front panel

- Supports dual redundant AES50 networks

- Features Neutrik etherCON* AES50 network ports

- Rugged 2U rackmount chassis for durability in portable applications

- Auto-ranging universal switch-mode power supply

- 10-Year Warranty Program*

- Designed and engineered in the U.K.

DL155 is a 2U 19" fixed-configuration rack I/O unit with 8 mic/line level inputs, 8 line level outputs and an 8 channel digital AES3 (AES/EBU) interface, and delivers legendary MIDAS sound quality utilising our time-tested and road-proven technologies. Featuring award-winning MIDAS microphone preamplifiers with 2.5 dB analogue gain steps and two AES50 network ports providing dual redundancy, the DL155 is the ideal partner to all MIDAS PRO and M32 Series digital consoles, enabling a digital snake connection from Front of House to stage.

MIDAS

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NAMM TEC Nominee 2012

Award-Winning MIDAS Microphone Preamplifier

The MIDAS microphone preamplifier is considered by leading live sound and recording engineers to be the very essence of the famous MIDAS sound. More than 40 years of design experience paired with the finest choice of premium-grade components lead to the acclaimed warmth and depth - bringing out subtle ambience, maintaining spatial positioning and more effectively capturing a precise sound image. The acclaimed sound of the award-winning MIDAS microphone preamplifier has inspired generations of live sound engineers to their best work, creating sonic panoramas that have captivated audiences worldwide.

Since pristine sound always begins with the microphone preamplifier, the first point where the signal enters the console, DL155 features the latest generation of MIDAS microphone preamplifiers, which faithfully reproduce every sonic detail so no part of a performance will ever be missed. Transparent and pristine sound, low noise and high common-mode rejection are all hallmarks of this classic design.

Over the years many mix engineers have found this robust and overload-tolerant design takes on a whole new dimension of sound when driven hard, the crystal-clear audiophile reproduction giving way to just the right combination of harmonics, a warm and organic sound heard by millions of concert goers and recorded for posterity on countless live albums over the years.

Digital Audio Networking

SuperMAC (AES50-Compliant) digital audio networking technology from KLARK TEKNIK simultaneously provides high channel counts, ultra low and deterministic latencies, sample-synchronous and phase-aligned networked clock distribution, error detection and correction, network redundancy, and ease of deployment and use – to meet the demanding requirements of live concert touring.

DL155 is compatible with all MIDAS digital consoles and audio system engines, as well as with any other AES50-equipped devices.

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High Output Drive Line Outputs with Mute

DL155 features 8 active servo-balanced low impedance line level outputs with high output current capability for driving long cable runs.

The outputs feature an automatic mute facility if the audio signal path is muted by the mixing console operator, and individual LED indicators are provided for each output connector.

AES3 Digital Audio Interface

DL155 features an 8 channel digital AES3 (AES/EBU) interface with 8 input channels and 8 output channels, each configured as four digital data streams on individual XLR connectors.

DL155 features sample rate conversion for both inputs and outputs and can interface to equipment operating at 48 kHz and 96 kHz. Additionally, DL155 features external clock synchronisation for input channels and word length and clock source options (internal 48 kHz, internal 96 kHz or external synchronisation) for output channels.

Each AES3 input connector has LED indication for synchronisation lock to the incoming digital data stream. The AES3 outputs feature an automatic mute facility if the audio signal path is muted by the mixing console operator, and individual LED indicators are provided for each output connector.

96 kHz or 48 kHz Operation

DL155 supports multiple sample rates for the AES50 connections - 96 kHz for use with MIDAS PRO Series, and 48 kHz for use with MIDAS M32 Series.

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Remote Console or Front Panel Control

All configuration settings for DL155 can be set either remotely from the mixing console, or directly via the intuitive and easy to understand front panel. DL155 features a front panel LCD display with intuitive menu navigation for all configuration options with LED status indicators, which provide clear feedback of operational status over wide viewing angles and distances. Clear indication is provided showing power supply output rail condition and AES50 and Ethernet network connection status and activity.

Built for the Road

Featuring a rugged steel 2U rackmount enclosure, the DL155 is designed for the rigours of live concert touring. Premium Neutrik connectors are used for reliable audio and network connections, night after night.

Auto-Ranging Universal Switch-Mode Power Supply

DL155 features a universal power supply, which is auto-voltage sensing for use on a worldwide basis.

MIDAS

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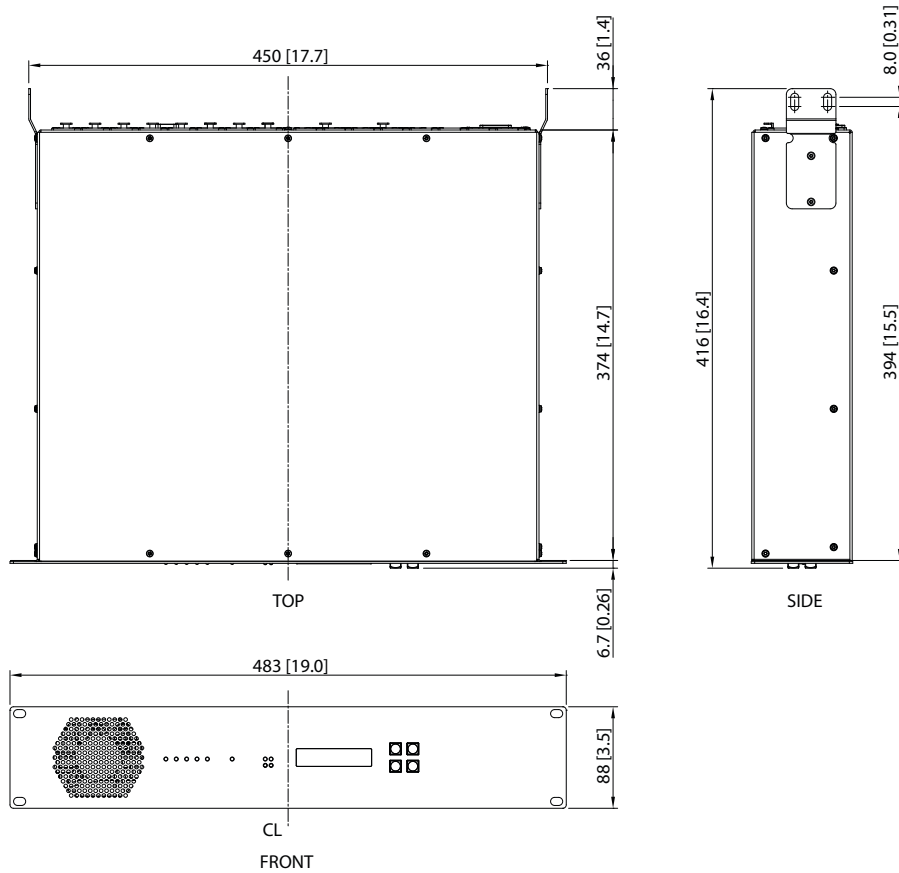8 MIDAS Microphone Preamplifiers and
AES3 Digital Interface

You Are Covered

We always strive to provide the best possible Customer Experience. Our products are made in our own MUSIC Tribe factory using state-of-the-art automation, enhanced production workflows and quality assurance labs with the most sophisticated test equipment available in the world. As a result, we have one of the lowest product failure rates in the industry, and we confidently back it up with a generous Warranty program.

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Dimensions

450 [17.7]

36 [1.4]

8.0 [0.31]

374 [14.7]

416 [16.4]

394 [15.5]

6.7 [0.26]

TOP

SIDE

483 [19.0]

88 [3.5]

CL

FRONT

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Technical Specifications

General Specifications

Sample Rate	48 kHz, 96 kHz
Dynamic Range	>107 dB unweighted (20 Hz - 20 kHz)
Maximum Input Level	
Mic/Line (Unity Gain)	+21 dBu
Mic/Line (-2.5 dB Gain)	+24 dBu
CMRR @ 1 kHz	
Mic Input (Unity Gain)	>60 dB
Mic Input (40 dB Gain)	>90 dB
Mic EIN (40 dB Gain)	-126 dBu
Maximum Output Level	+21 dBu into 600 ohms
Output Noise (Unity Gain)	-86 dBu
Frequency Response	±0.5 dB (20 Hz - 20 kHz, relative to 1 kHz)
THD+N (Unity Gain)	<0.01%
Crosstalk @ 1 kHz	<-90 dB

System Inputs and Outputs

Analogue Inputs	8
Type	Mic/Line Level
Connector	3-pin XLR Balanced
Input Impedance	10k ohms
A/D Conversion	24 bit, 96 kHz with 128 times oversampling
Phantom Power	+48V, individually switchable per channel
Analogue Outputs	8
Type	Line Level
Connector	3-pin XLR Balanced

Output Impedance	50 ohms
D/A Conversion	24 bit, 96 kHz with 128 times oversampling
Digital Inputs	4 (8 channels)
Connector	3-pin XLR Balanced
Output Impedance	110 ohm
Digital Interface	Conforms to AES3-2009
Digital Outputs	4 (8 channels)
Connector	3-pin XLR Balanced
Output Impedance	110 ohm
Digital Interface	Conforms to AES3-2009
Network Connections	2
Connector	Neutrik etherCON with status LEDs
Redundancy	Dual cable redundancy
Network Interface	Conforms to AES50-2011
Ethernet Control Port	1
Connector	Neutrik etherCON with status LEDs
Power	1
Connector	IEC mains inlet
Mains Input Voltage	100 to 240 VAC, 50-60 Hz
Power Consumption	<150 W
Dimensions	483 x 416 x 88 mm (19.0 x 16.4 x 3.5")
Net Weight	6.7 kg (14.7 lbs)
Operating Temperature Range	+5°C to +45°C
Storage Temperature Range	-20°C to +60°C

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Architecture & Engineering Specifications

The interface unit shall be designed for digital audio mixing applications and be optimised for use in live performance. It shall feature 8 integrated microphone preamplifier inputs with 2.5 dB analogue gain steps, 8 servo-balanced electronic outputs and a digital audio interface with 8 input channels and 8 output channels, each configured as four digital data streams, which shall be compliant with the Audio Engineering Society AES3-2009 standard. All connections shall be on industry-standard XLR connectors and the interface unit shall be capable of operating at 48 kHz and 96 kHz sampling rates.

The interface unit digital audio interface shall incorporate sample rate conversion for the both inputs and outputs and shall be capable of interfacing to equipment operating at 48 kHz and 96 kHz. The interface unit digital audio interface shall feature external clock synchronisation for input channels and word length and clock source options (internal 48 kHz, internal 96 kHz or external synchronisation) for output channels.

The interface unit shall have LED indication for +48V phantom power for each input channel connector

The interface unit shall include an automatic output mute function if the audio signal path is muted via the control centre and shall have LED indication for output mute for each output channel connector and AES3 output connector.

The interface unit shall have LED indication for synchronisation lock to the incoming digital data stream for each AES3 input connector.

The interface unit shall support a 100 Megabit Ethernet frame-based digital audio network that shall offer dual cable redundancy and be compliant with the Audio Engineering Society AES50-2011 standard. Two digital audio network ports and one Ethernet control port shall be provided.

The interface unit shall provide both front panel and remote network configuration of operational settings and provide an alphanumeric LCD display with associated menu navigation buttons, and LED status indication of power supply output rail condition and digital audio and control network connection status and activity.

The interface unit shall include an auto-ranging universal switch-mode power supply for use on a worldwide basis.

The interface unit shall be housed in a standard 2U 19" rackmount chassis, and shall be 483 mm wide x 376 mm deep x 88 mm high (19.0" x 14.8" x 3.5"), with nominal weight 6.9 kg (15.2 lbs). The interface unit shall be installed in a rack frame or road case capable of safely supporting its weight. Input, output, and power connections shall be made at the rear panel of the interface unit. Installers shall allow adequate space at the rear for connection and disconnection of input, output, and power connections. The power requirements shall be 100 to 240 VAC, 50 to 60 Hz.

The interface unit shall be the MIDAS DL155 and no other alternative shall be acceptable.

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For service, support or more information contact the MIDAS location nearest you:

Europe
MUSIC Tribe Brands UK Ltd.
Tel: +44156 273 2290
Email: CARECrea@music-group.com
CAREEnte@music-group.com
CARELife@music-group.com

USA/Canada
MUSIC Tribe Commercial NV Inc.
Tel: +1 702 800 8290
Email: CARECrea@music-group.com
CAREEnte@music-group.com
CARELife@music-group.com

Japan
MUSIC Tribe Services JP K.K.
Tel: +81 3 6231 0453
Email: CARECrea@music-group.com
CAREEnte@music-group.com
CARELife@music-group.com

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