

Microphone Preamplifiers

XL48

8 Channel DIGI-LOG Microphone Preamplifier with 96 kHz Converters and ADAT Outputs



- ⊗ 8 channel DIGI-LOG microphone preamplifier
- ⊗ Award-winning MIDAS XL4 analogue microphone preamplifiers with switchable +48 V phantom power
- ⊗ Low latency 24 bit 96 kHz ADC converters with overload protection
- ⊗ All-analogue MIDAS XL4 swept low and high pass filters per input
- ⊗ 2 ADAT* optical output ports with 75 ohm BNC connector for external word clock
- ⊗ Selectable 96 kHz, 88.2 kHz, 48 kHz or 44.1 kHz sample rate operation
- ⊗ Internal "AES Grade 1" temperature-compensated word clock (1 ppm)
- ⊗ 8 inputs with Neutrik* XLR connectors and parallel 25 way D-type connector
- ⊗ Electronically balanced analogue outputs on a 25 way D-type connector
- ⊗ Digital AES3 (AES/EBU) outputs on dual 25 way D-type connectors
- ⊗ Rugged 1U rackmount chassis for durability in portable applications
- ⊗ Auto-ranging universal switch-mode power supply
- ⊗ 3-Year Warranty Program**
- ⊗ Designed and engineered in England

In response to the many customer requests received over the years, the **MIDAS XL48 DIGI-LOG Microphone Preamplifier** is a combination of the best of both analogue and digital worlds. XL48 features eight classic XL4 series microphone preamplifiers in a 1U 19" rackmount enclosure with the acclaimed low latency 24 bit 96 kHz ADC converters with overload protection from the **MIDAS XL8 Live Performance System**, and a precision reference clock oscillator with 1 part-per-million (ppm) stability.



Additional features include swept high and low pass filters, 8 segment LED input meters, and individual phantom power, polarity invert, and -20 dB pad switches per channel. XL48 features both analogue outputs and digital outputs in ADAT optical and AES3 formats and all outputs can be used simultaneously, allowing the XL48 to be used as a multifunction analogue and/or digital microphone splitter. Multiple internal sample rates are supported, with the option to sync to external word clock.

XL48 is ideal for use in portable recording rigs, analogue and digital splits between consoles, or indeed augmenting the performance of other mixing consoles with its **MIDAS XL4** microphone preamplifiers, XL8 analogue-to-digital conversion and precision reference-grade 1 ppm internal clock oscillator.

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**Warranty details can be found at music-group.com.

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Award-Winning MIDAS XL4 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. Decades 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, XL48 features the legendary **MIDAS** XL4 microphone preamplifier design, which faithfully reproduces 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.

Multiple Sample Rates

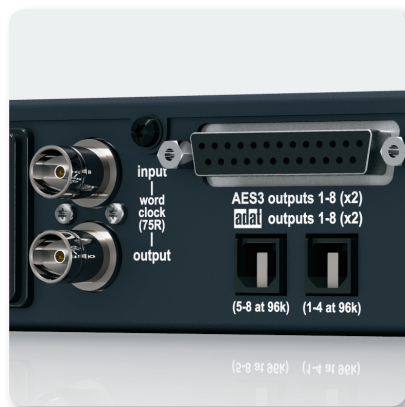
XL48 supports 24 bit audio operation at 44.1 kHz, 48 kHz, 88.2 kHz and 96 kHz from its internal precision "AES Grade 1" reference temperature-compensated clock oscillator with 1 part-per-million (ppm) stability. This highly accurate clock source can be used as the reference clock for digital audio systems, providing a very defined sound image free of jitter and other digital clocking error artefacts.

XL48 also supports the same sample rates when clocked from external word clock, and both word clock input and output are provided on 75 Ω BNC connectors.



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Flexible connectivity

XL48 features parallel-connected analogue inputs on both XLR and 25 way D-type connectors. Electronically balanced analogue outputs are also provided on a 25 way D-type connector. In the digital domain, AES3 (AES/EBU) outputs are provided on dual 25 way D-type connectors, and dual TOSLINK optical connectors are provided for the ADAT outputs to allow for operation at both standard 44.1/48 kHz and high 88.2/96 kHz sample rates.

Built for the Road

Featuring a rugged steel 1U rackmount enclosure, the XL48 is designed for the rigours of live concert touring. Premium Neutrik connectors are used to ensure reliable audio connections, night after night.



Auto-ranging universal switch-mode power supply

XL48 features a universal power supply, which is auto-voltage sensing for use on a worldwide basis.

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You Are Covered

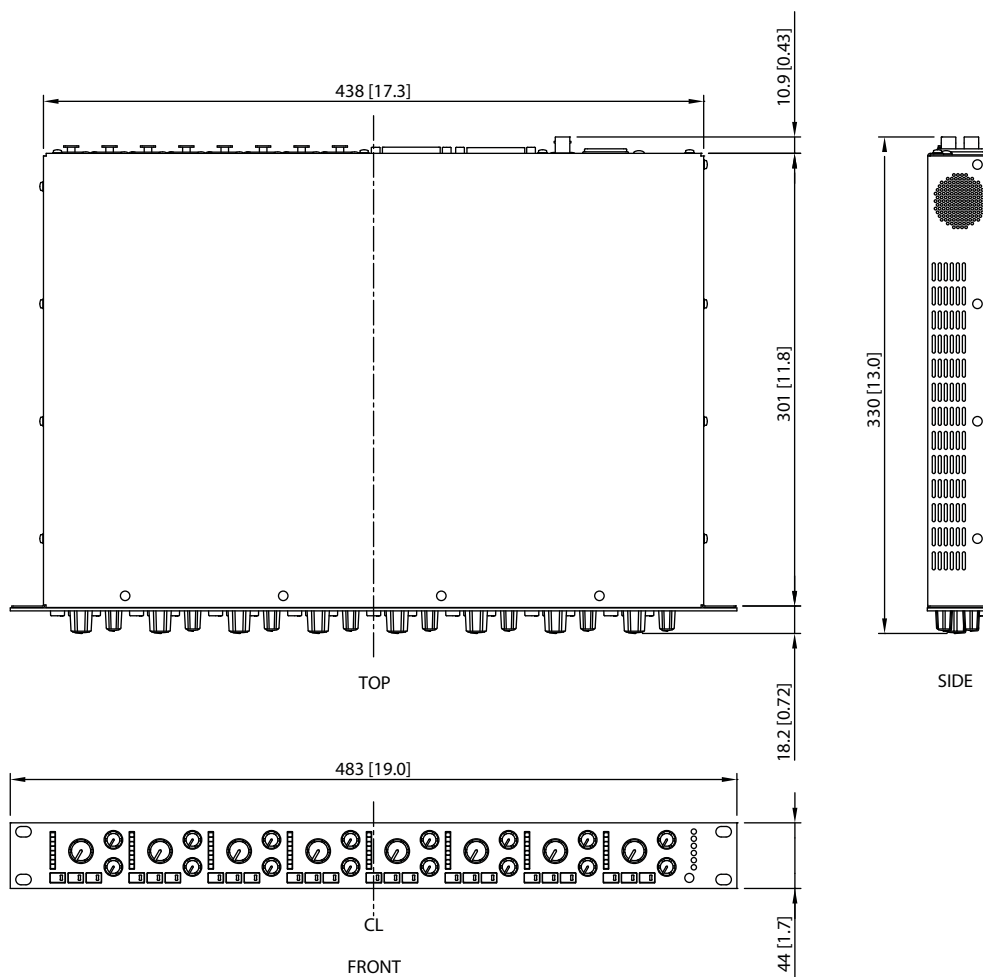
We always strive to provide the best possible Customer Experience. Our products are made in our own [MUSIC Group](#) factory using state-of-the-art automation, enhanced production workflows and quality assurance labs with the most sophisticated test equipment available in the world. As a result, we have one of the lowest product failure rates in the industry, and we confidently back it up with a generous [3-Year Warranty](#) program.



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Dimensions



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Technical Specifications

System

Inputs	Eight XLR connectors and one 25-way D-Type connector (parallel connected).
Maximum Input Level	
Mic\Line	+11 dBu
Mic\Line + Pad	+31 dBu
Preamplifier gain	+10 dB to + 60 dB
CMRR at 1kHz (Typical)	
Mic (gain +40 dB)	> 80 dB
Mic + Pad (gain +40 dB)	> 70 dB
Noise	
Mic EIN at +60 dB gain	-128 dBu
Mic EIN at +40 dB gain	-125 dBu
Output noise at minimum gain	-95 dBu
Frequency response	+0 dB to -1 dB (20 Hz to 20 kHz)
THD+N at 1 kHz	0.03% (Input to output with unity gain)
Crosstalk at 1 kHz	< -90 dB
Filters	
High pass filter slope	12 dB/octave
Low pass filter slope	12 dB/octave
High pass filter range	10 Hz to 400 Hz
Low pass filter range	1 kHz to 40 kHz
Maximum Output Level	
Line outputs (into 600 Ω)	+21 dBu
Digital Output	
Sampling frequency	44.1 kHz, 48 kHz, 88.2 kHz or 96 kHz
Bit rate	24 Bit
Dynamic range	>110 dB (20 Hz-20 kHz)

Terminations

Analogue audio inputs	3 pin XLR and 25 way D-type connector (parallel connected)
Analogue audio outputs	25 way D-type connector
AES3 digital outputs	25 way D-type connector (x2)
ADAT digital outputs	TOSLINK optical connector (x2)
Word clock input	75 Ω BNC connector
Word clock output	75 Ω BNC connector
Power	IEC

Power Requirements

Voltage	100 to 240V \pm 10% 50/60 Hz
Consumption	<35 W

Weight

Net	4.3 kg (9.5 lbs)
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Dimensions

Width	483 mm (19.0 inches)
Depth	301 mm (11.8 inches)
Height	44 mm (1.7 inches)

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Architecture & Engineering Specifications

The microphone preamplifier shall perform the function of amplifying each of 8 discrete microphone channels and converting into digital audio formats. Each channel shall have a microphone preamplifier input, an analogue line output, and digital outputs in both copper and optical formats. The copper output shall be compliant with the Audio Engineering Society AES3-2009 standard and the optical output shall be in the proprietary Alesis ADAT format.

The microphone preamplifier shall provide variable gain from +10 dB to +60 dB, and selection switches for phase invert, -20 dB pad and +48 V phantom power for each channel. Swept second-order (12 dB/octave) high and low pass filters shall also be provided for each channel, with frequency ranges 10 Hz to 400 Hz and 1 kHz to 40 kHz respectively.

The microphone preamplifier shall have a precision clock reference provided by a temperature-controlled crystal oscillator (TCXO) with 1 part-per-million (1 ppm) stability.

The microphone preamplifier shall provide analogue to digital conversion with 24 bit resolution at 44.1 kHz, 48 kHz, 88.2 kHz and 96 kHz sampling rates with the option of synchronising to either the internal 1 ppm precision clock reference oscillator or the external word clock input.

The microphone preamplifier shall have each analogue input paralleled on both individually on industry standard XLR connectors and combined on a 25 way D-type connector.

The microphone preamplifier shall have a 25 way D-type connector with connections for the electronically balanced analogue output for each channel.

The microphone preamplifier shall have two 25 way D-type connectors for the AES3 digital outputs, to support operation at both standard 44.1/48 kHz and high 88.2/96 kHz sample rates.

The microphone preamplifier shall have two TOSLINK optical connectors for the ADAT outputs, to support operation at both standard 44.1/48 kHz and high 88.2/96 kHz sample rates.

The microphone preamplifier shall have word clock input and output connections on 75 Ω BNC connectors.

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

The microphone preamplifier shall be housed in a standard 1U 19" rackmount chassis, and shall be 483 mm wide x 301 mm deep x 44 mm high (19.0" x 11.8" x 1.7"), with nominal weight 4.3 kg (9.5 lbs). The microphone preamplifier 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 microphone preamplifier. 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 microphone preamplifier shall be the [MIDAS](#) model XL48 and no other alternative shall be acceptable.

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