ULN-8

Simply the best – of everything!

ULN-8 – The Ultimate Solution

Building upon the experience gained with the Mobile I/O 2882 and ULN-2, Metric Halo set out to design an integrated product to literally provide the best performance in each of its component sections while still providing all of the benefits of tight integration in a single field-capable package. The ULN-8 is the result of that development program.

By implementing all the functions of a complete audio front end in a single package, the ULN-8 is able to provide unprecedented power and quality in a lightweight, low-power consumption, single RU hardware unit. This integration provides significant benefits to the owner in the form of reduced cabling (lower cost, weight and less opportunity for failure), weight, power consumption, and cost, while at the same time providing unprecedented performance.

With everything you need to record, mix, process, and master audio (just add your DAW of choice and transducers), the ULN-8 is your one-stop solution for recording, editing, mixing and mastering suites. Even if you are using a DAW or recording system that does not support the ULN-8 FireWire interface, the unit's standalone operation and standard AES and analog interface allow you to use it as the Audio Front End and Monitor Controller for Pro Tools, standalone and PC-based recording systems.

The ULN-8 provides mastering room, archival quality conversion at multichannel prices. From a quality perspective, the ULN-8 provides a complete mastering toolkit - ready to drive a mastering suite. With transparent converters (A/D/A conversion is inaudible) and transparent reciprocal processing, the ULN-8 provides a load-in, monitoring and processing interface for any mastering suite. Eight channels of conversion and AES interfacing allow for multiple analog and digital processing signal chains as well as monitoring and processing in surround. If more analog processing chains are required, additional ULN-8s may be added to a system.

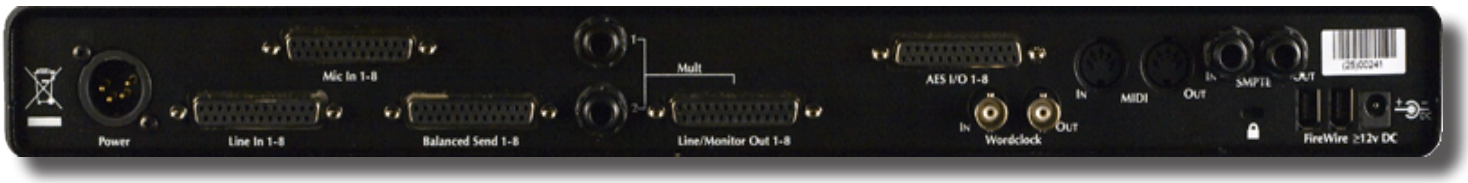
Key Features

- 8 Channels of mic pres with 91.5 dB of gain
- 8 Channels of Archival Grade 192k A/D converters
- 8 Channels of Archival Grade 192k D/A converters
- 2 Channels of Archival Grade 192k D/A converters with integrated headphone amp
- 2 analog outputs on balanced TRS connectors
- Analog Balanced Send architecture for onboard split
- 2 Channels of Exceptional DI inputs suitable for instrument or turntable inputs
- Integrated Surround Monitor Controller
- 8 Channels of 192k capable AES Inputs and Outputs
- Comprehensive Front Panel Controls
- Comprehensive, High Resolution 15 Segment Front Panel Metering
- Comprehensive Clocking (Internal, WC, AES)
- Dedicated internal clock sources for all rates
- Dedicated MIDI I/O for Control Surface interfacing
- Dedicated SMPTE LTC I/O
- Rock-solid, time-tested fifth-generation software and drivers
- +DSP license included

The same quality standards apply to the preamps provided for the ULN-8. For recording, the ULN-8 allows you to leave the boutique preamps at home because the preamps in the ULN-8 are boutique pres. They just don't require extra power, weight or cabling to be used. Multiple ULN-8s may be combined to build large-scale recording packages in a small space. The ULN-8 can also be combined with 2882 and ULN-2 units in a complete recording system.

The integrated mixer in the ULN-8 is not a mere cue mixer. It is a complete digital console with mono to 7.1 bus support, monitor control section, instantiable delay-compensated processing with full delay-compensated send and return support in the mixer. Not only can you mix monitor mixes for performers with essentially zero latency, you can also mix the show live for an immediate stereo reference.

At mix down time, utilize the acclaimed mixing and processing engine in the ULN-8 as your ultra-high-quality digital outboard summing system. Or, if you are an analog-summing aficionado, you can use the exceptional converters in the ULN-8 to drive your analog summing bus and capture the results. The ULN-8 A/D/A is penalty free. But as many engineers have discovered, the exceptional mix-bus quality of the 2d Mix engine coupled with MH's exclusive Character processing may leave you wondering why you would go to the trouble to use an analog summing bus, as it is already in the ULN-8.



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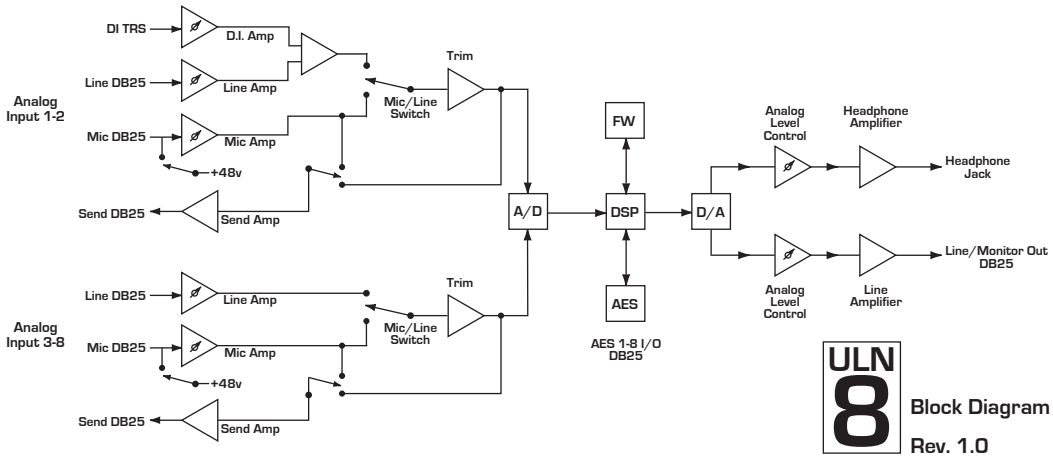
ULN-8
Specifications

ULN-8 Technical Specifications

Rails	
Analog Rails (low power)	±9.9 Volts
Analog Rails (high power)	±12.6 Volts
Maximum I/O Levels (Balanced)	
Peak Line Output @ 0 dBFS (no jumper/low power)	+18.5 dBu
Peak Line Output @ 0 dBFS (output jumper/low power)	+22.0 dBu
Peak Line Output @ 0 dBFS (output jumper/high power)	+24.5 dBu
Analog Send Max Output	+21.5 dBu
Line In Max Input	+24.5 dBu
Output Impedance	5 Ω
Monitor Controller	
Nominal FS output (Balanced) Output Jumper Off	-19.0 dBu
Nominal FS output (Balanced) Output Jumper On	-12.0 dBu
Maximum Output	Same as Line
Gain Range	-96 dB to +30 dB
Gain Precision	±0.05 dB
Gain Step	0.5 dB
Line Input + ADC	
Input Impedance	10 kΩ
Dynamic Range (-60 dB, flat 0-22.05 kHz, typ)	115 dB
Dynamic Range (-60 dB, A-weighted, typ)	118 dB
Noise Floor (flat 0-22.05 kHz, typ)	115 dB
Noise Floor (A-weighted, typ)	117.9 dB
THD D/A/A/D loop @ -12 dBFS	0.0005 %
THD D/A/A/D loop @ -0 dBFS	0.0015 %
Crosstalk @ 1kHz	-127 dB
IMD 1k component (19 kHz/20kHz @ +8dBu)	-104 dBu
Gain Range	-12 dB / +31.5 dB
Gain Precision	±0.05 dB
Gain Step	0.5 dB

ULN-8 Technical Specifications

Line Input + ADC Frequency Response	
+0/-0.1dB @ fs = 44100 Hz	5.7 Hz - 20.5 kHz
+0/-1.0dB @ fs = 44100 Hz	1.8 Hz - 21.0 kHz
+0/-0.1dB @ fs = 96000 Hz	5.7 Hz - 43.9 kHz
+0/-1.0dB @ fs = 96000 Hz	1.8 Hz - 45.4 kHz
+0/-0.1dB @ fs = 192000 Hz	5.7 Hz - 42.1 kHz
+0/-1.0dB @ fs = 192000 Hz	1.8 Hz - 64.7 kHz
5° low-end in-channel phase deviation point	10.7 Hz
Interchannel phase 0 Hz - 20 kHz	< ±0.05°
Crosstalk from SMPTE Input	< -142 dB
Software	
Driver	CoreAudio Mac OS X
Mac OS X	10.4.11 or newer
Architectures	PPC, Intel
MIO Console	Included
Record Panel	Included
LTC Decoder	Included
Mixer	Included
+DSP License	Optional
Power	
Voltage	14v - 28v
Power	24 Watts
Case	
Weight	6 lbs / 2.7 kg
Dimensions	17″ x 13″ x 1.72″ 432 x 330 x 44 mm



ULN 8 **Block Diagram**
Rev. 1.0

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