

MIMO88

DIGITAL MATRIXES

Installation Digital Matrix



PRODUCT OVERVIEW

MIMO88 is an 8 in / 8 out digital audio matrix, fully programmable and linkable to a second unit to become a 16x16 matrix, with real routing from any input to any output.

KEY FEATURES

- Expandable to 16 inputs / 16 outputs to become a real 16 x 16 matrix
- Fully programmable and controllable via EclerNet software
- UCP (User Control Panels) remote control system, compatible with WPmSCREEN and third-party devices, such as computers, tablets, smartphones, etc.
- TP-NET protocol compatible, for third-party control systems integration
- A few processing bits: signal generator, delays, full parametric EQ filters at inputs and outputs, inputs noise gate, level, mute, phase, vu-meters, outputs compressor / limiter, ducking (priority & overriding), virtual and physical paging stations management, automatic mixer function, presets save & recovery, scheduled events triggering
- FREQUENCY SHIFTER function to avoid acoustic feedback (Larsen Effect), available for each INPUT channel.

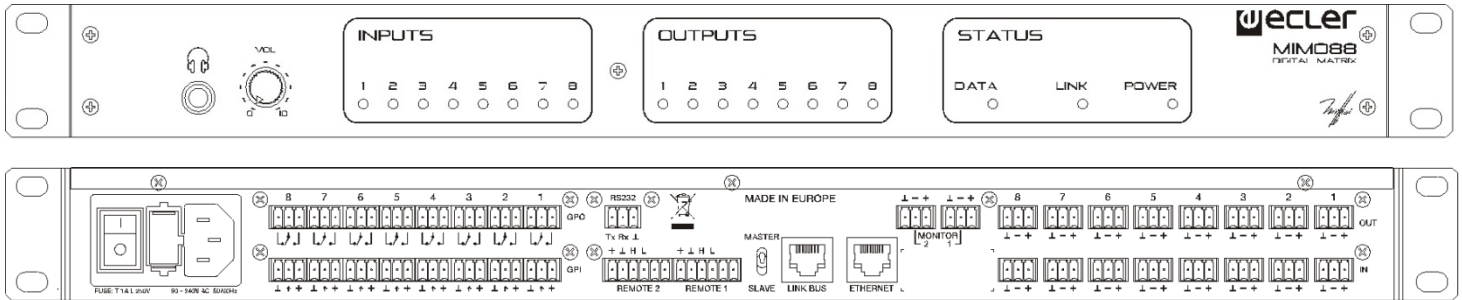
APPLICATIONS

- Centralized, distributed or hybrid fixed installation
- BGM & Paging solutions
- Conferencing (automatic mixing)
- P.A. management
- Installations requiring remote total control
- Live sound (WiFi management is possible)

CERTIFICATIONS

- EN60065:2014
- EN55103-1:2009
- EN55103-2:2009
- 2006/95/EC
- 2004/108/CE

MECHANICAL DIAGRAMS



TECHNICAL DATA

DSP	
DSP	2 x 32/64bit
Sampling Rate	48kHz
Latency IN to OUT	<2.9ms (+1ms for 16x16)
Converters	
Resolution	24bit AKM
Dynamic Range	AD:110dB, DA: 115dB
Analog	
8+8 Input/Output	Terminal block (Symmetrical)
2 monitor output	Terminal block (Symmetrical)
Headphones related	Jack 1/4
Analog Input headroom	+27dBV = +30dBu
Max. output level	+18dBV = +21dBu
Input sensitivity @ 0dBV out	From -50dBV to +10dBV in 0.5dB step
Input Impedance	Balanced, >4kΩ
Phantom power	+42VDC, 5mA max. software switched
Headphones	>200mW/200Ω
Frequency response (-3dB)	5Hz to 24kHz
Flatness	better than ±0.1dB
THD+Noise @ 1kHz, 0dBV input (line)	<0.004%
THD+Noise @ 1kHz, -40dBV input (mic.)	<0.008%
Output Noise floor FFT (20Hz - 20kHz)	better than 115dB
Interchannel crosstalk (20Hz - 20kHz)	better than 90dB (100dB typ.)
Channel Leakage (20Hz - 20kHz)	better than 100dB (115dB typ.)
CMRR 20Hz- 20kHz	65dB typ.
Processing	
Input Level (x8)	Range: from Off to 0 dB Mute: Yes Signal Polarity reverse: Yes Metering: VU+clip pre & post fader
Output Level (x8)	Range: from Off to 0 dB Mute: Yes Solo: Yes Signal Polarity reverse: Yes Metering: VU+clip pre & post fader
Input Delay (x8)	from 0 to 1000 ms Units: sec/ms/m/cm.
Output Delay (x8)	from 0 to 1000 ms Units: sec/ms/m/cm.
Parametric Eq. Types (4 max per input) (8 max per output in 8x8 mode) (4 max per output in 16x16 mode)	Bypass / On-Off all channels Param Eq. Freq: 20Hz-20kHz Gain: -60/+12 dB Q: 0.3 to 200 Low & High Shelf 6/12 dB/oct Low & High Pass 6/12 dB/oct All Pass 1/2 order Bypass On-Off
High & Low pass output Crossover filters (x8)	Butterworth in 6/12/18/24 dB/oct Bessel in 12/18/24 dB/oct Linkwitz-Riley in 12/24 dB/oct

Input Noise Gate (x8)	Bypass On-Off Threshold: from -80 dBV to +18 dBV Depth: 0 dB to 80 dB Knee: hard / soft Attack time: from 0,1 ms. to 500 ms. Hold time: from 10 ms. to 3000 ms. Release time: from 10 ms. to 1000 ms.
Input Compressor / Limiter (x8)	Bypass On-Off Threshold: from -36 dBV to +18 dBV Ratio: 1:1 to inf:1 (limiter) Knee: hard / soft Attack time: from 0,1 ms. to 500 ms. Release time: from 10 ms. to 1000 ms. Make up gain: from 0 to +10 dB
Input Frequency Shifter	Available on all inputs. ON / OFF function
Output Limiter (x8)	Bypass On-Off Threshold: from -36 dBV to +18 dBV Ratio: inf:1 (limiter) Attack time: from 0,1 ms. to 500 ms. Release time: from 10 ms. to 1000 ms.
Built in Signal Generator	Sine: from 20 Hz to 20 kHz Polarity: from 20 Hz to 20 kHz White noise Pink noise
Stereo Linking	Adjacent input / output channels Linked processing Matrix routing linked
Mix Matrix	Size: 8x8 (1-MIMO88) Size: 16x16 (2-MIMO88 with expan. link bus) Vol: Input, Output, Crosspoint Mute: Set/Clear individual, row, column, all Input /output Mono/stereo selector Meter: Input /output VU and clip
Pager	Input: IN1 to IN8 (or to IN16 in 16x16) Priorities: 4(1max) 4 (min) Depth: 0 dB to 80 dB Attack time: from 0,1 ms. to 500 ms. Release time: from 10 ms. to 1000 ms. Chime Source: None, Melody 1, Melody 2 Chime Volume: from -12 dB to 0 dB
Mechanical	
Dimensions	482.6x44x266.5mm
Weight	3.5kg
Supply	
Mains	90-264VCA 47-63Hz
Power consumption	75VA
Miscellaneous	
Management Connectivity	Ethernet Base-Tx 10/100Mb Auto X-Over CAT5 up to 100m.
Expansion LINK BUS (16x16 ch.)	Proprietary over CAT5, Xover cable up to 100m.
Remote Bus	2, over twisted pairs; up to 1km (see specific specs.)
GPI	8, from 0 to 10VDC or TTL level
GPO	8, 3 poles isolated relay; 1A, 48VDC max. -
Aux. Power Supply for Remotes & GPI	+12VDC, 1.2A. max. (short circuit protected)
Time and date retention (battery)	1 month aprox. (ambient temperature dependant)
RTC accuracy	±1 minute /year
SOFTWARE	
EclerNet Software	Realtime full GUI of all functions and controls thru Ethernet with interactive graphical display Grouping mode channels or devices Grouping of other groups Automated report generation Up to 256 devices on same net Autodiscovery devices feature Routing capability through NAT gateways Real time metering at input/output (DSP) Device "Finder" feature Save & Recall setup and preset functions Firmware update capability thru Ethernet Password protection (device & project with two user levels) Default Network configuration: IP: 192.168.0.100 Mask: 255.255.255.0 Gate: 192.168.0.1 UDP Port: 2210

Operating System	Windows® 10; W8.1; W8; W7; Vista (SP1); XP Prof. (SP3); W2000 Prof. (SP4)
Minimum EclerNet System Requirements	Pentium IV @ 1GHz 512MB RAM 40MB HDD free space 800x600 pixels & 16bits color display 10/100/1G Ethernet Network card