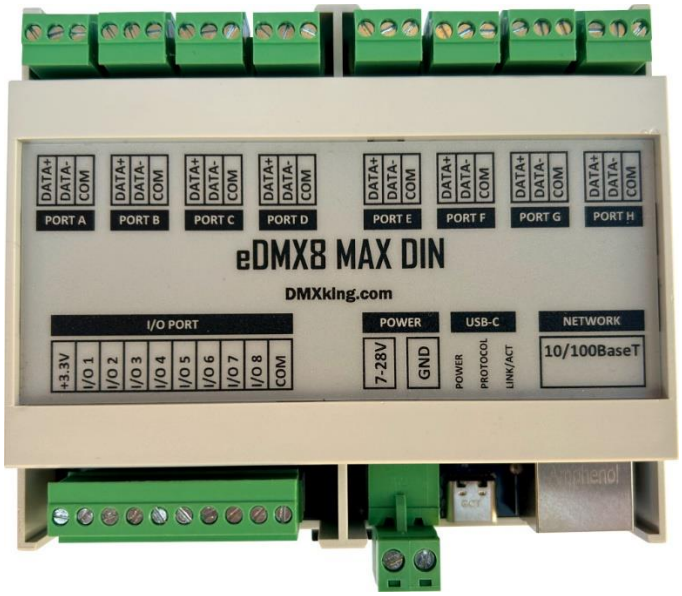
DMXking.com

eDMX8 MAX DIN



USER MANUAL

DMXking.com • JPK Systems Limited • New Zealand
0127-700-4.7

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1. INTRODUCTION

Thanks for purchasing a DMXking product. Our aim is to bring you high quality products with great features we know you'll appreciate. DMXking MAX series devices are Art-Net and sACN/E1.31 protocol compatible designed for use with computer based show control software or expansion of lighting console outputs. There are many free and commercial software packages available. http://dmxking.com/control-software

HARDWARE AND FIRMWARE VERSIONS

From time-to-time minor hardware changes occur in our products usually small feature additions or unseen optimizations. The table below lists eDMX8 MAX DIN product variants. Check the product label for P/N details.

Part Number	**Feature addition**
0127-1.0	Initial product release

Firmware updates are released on a semi-regular basis. We recommend updating to the latest available firmware version so all product features are available. Please take note the user manual reflects latest firmware version features unless otherwise noted.

Firmware Version	**Comments**
V4.6	Initial release. RDM support.
V4.7	SD card detection improvements.

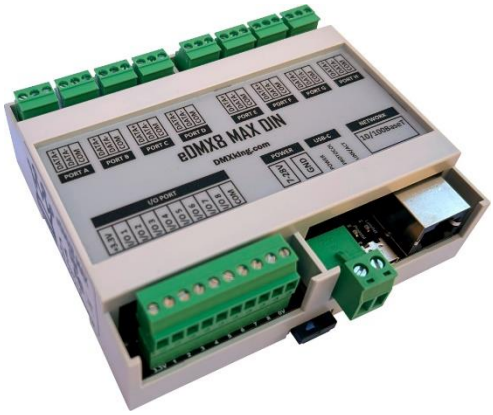
MAIN FEATURES

- Wide input power range 7-28Vdc
- Optional power from USB-C
- OEM board available for integration into your designs
- DIN rail and wall mount using built in clips
- Static or DHCP IPv4 network addressing
- USB DMX functionality in addition to Network Art-Net/sACN
- Supported operating systems: Windows, MacOS, Linux, iOS, Android
- eDMX8 MAX DIN - 8x DMX512 OUT or DMX512 IN with Art-Net, sACN E1.31 and E1.20 RDM support
- Art-Net broadcast, Art-Net II,3 & 4 unicast, sACN/E1.31 Multicast and sACN Unicast support
- Merge 2 incoming Art-Net/sACN streams per output channel with both HTP and LTP options
- Merge Art-Net/sACN + DMX input -> DMX output(s)
- Merge 2x DMX Input -> DMX Output(s)
- Split 1x DMX Input -> 7x DMX Outputs
- sACN Priority takeover for multi-tier controller arrangements
- Mix and match Art-Net with sACN merge/priority sources
- DMX-IN and DMX-OUT channel offset re-mapping
- User configuration of Art-Net Node short and long names
- Fully compatible with all software and hardware that supports Art-Net I, II, 3 & 4 and sACN protocols
- Works with your existing console if Art-Net or sACN external nodes are supported
- Universe Sync Art-Net, sACN and Madrix Post Sync
- Recording and playback to microSD card (not included). See eDMX MAX Record / Playback manual
- Standalone show playback without computer or network connection
- Internal clock with optional battery backup for timed playback. NTP time sync
- Configuration utility with basic Art-Net output/input test functionality
- USB and Network configuration supported

eDMX MAX translates Art-Net 00:0:0 to Universe 1 (i.e. offset by 1) so there is an easy mapping between sACN/E1.31 and Art-Net.

2. EXTERIOR VIEW

FRONT VIEW



Network 10/100Mbps RJ45 socket. Pluggable 2way 5mm pitch terminal block for 7-28Vdc power input. Eight 3way 3.5mm pitch pluggable terminal block connectors for DMX512.

STATUS LED TABLE

LED	**Indication**
Protocol	Protocol activity. Flash Red = Art-Net/sACN. Solid Red = Bootloader mode
Link/Act	Network activity. Green = Link, Flash = Traffic
Port A	DMX512 Port A TX/RX activity
Port B	DMX512 Port B TX/RX activity
Port C	DMX512 Port C TX/RX activity
Port D	DMX512 Port D TX/RX activity
Port E	DMX512 Port E TX/RX activity
Port F	DMX512 Port F TX/RX activity
Port G	DMX512 Port G TX/RX activity
Port H	DMX512 Port H TX/RX activity

3. USB DMX OPERATION

DMXking MAX series devices include USB DMX functionality alongside Ethernet lighting protocols Art-Net/sACN.

SOFTWARE COMPATIBILITY

Software packages for USB DMX use either a Virtual COM Port (VCP) driver or FTDI specific D2XX driver. DMXking MAX series uses VCP which is more universal than FTDI D2XX, especially across different operating systems, however this has created some compatibility issues with existing software packages using the later. We are working with software developers still using D2XX to encourage updating their code to utilize VCP instead and also leverage DMXking USB DMX protocol extensions that allow multiple universe operation.

Check https://dmxking.com/ for DMXking MAX series USB DMX compatible software list.

DEVICE CONFIGURATION

Previously DMXking USB DMX capable devices did not require DMX port configuration for DMX-IN mode as this was automatically selected by certain USB DMX messages. This has changed in DMXking MAX series devices which now require explicit DMX-OUT or DMX-IN port configuration along with selecting which port to forward over USB DMX to allow multi-port devices to function with complete flexibility.

DMX PORT MAPPING

Simple USB DMX protocol output messages are automatically mapped to the physical DMX512 ports regardless of configured universe.

USB DMX SERIAL NUMBER

For software compatibility reasons a BCD serial number is calculated from the MAX device hardware MAC address using the lower 3 hexadecimal bytes converted to a decimal number. Software that has been updated for MAX series devices will display the hardware MAC address.

4. DEFAULT CONFIGURATION

All eDMX8 MAX DIN units ship with default IP address settings. Please reconfigure network settings as required before use.

Parameter	Default Setting
IP Address	192.168.0.112
Subnet Mask	255.255.255.0
Default Gateway	192.168.0.254
IGMPv2 Unsolicited Report	*Unchecked*
Network Mode	Static IP address

DMX512 Port configuration parameter defaults.

Parameter	Default Setting
Async Update Rate	40 [DMX512 frames per second]. Universe Sync will override.
Port Operation Mode	DMX-OUT
Timeout all sources	*Unchecked*
USB Forwarding [DMX-IN]	*Unchecked*
Channel Offset	0
Fixed IP	0.0.0.0 [Only for DMX IN – Unicast to 1 IP address only]
Merge Mode	HTP
Full DMX Frame	*Unchecked*
*Broadcast Threshold	0 [Art-Net broadcast]
Unicast IP [DMX-IN]	0.0.0.0
sACN Priority [DMX-IN]	100
RDM Enable	*Unchecked*
RDM Discovery Period [DMX-OUT]	0s / RDM Disabled
RDM Packet Spacing [DMX-OUT]	1/20s
DMX-OUT Failsafe Mode	Hold Last
Recall DMX Snapshot at startup	*Unchecked*
DMX512 Universe	1-8 [Art-Net Net 00, Subnet 0, Universe 0-7] Note: sACN Universe 1 = Art-Net 00:0:0

*Global threshold for all DMX-IN ports, configured only in Port A settings tab.

5. CONFIGURATION UTILITY

Download latest eDMX MAX Configuration Utility from https://dmxking.com/downloads-list

*eDMX8 MAX DIN requires eDMX MAX Configuration Utility v2.2+

User manual for the utility https://dmxking.com/downloads/eDMX MAX Configuration Utility User Manual (EN).pdf

6. TECHNICAL SPECIFICATIONS

- Dimensions: 106mm x 90mm x 32mm (WxDxH)
- Weight: 140 grams
- DC Power input 7-28Vdc, 3.5W max. Typical current consumption @ 12Vdc 300mA
- USB-C power input. Any USB power source, only 5V supply is negotiated @ 500mA maximum current.
- DMX512 connector: 3 way 3.5mm pitch terminal block.
- DMX512 ports are NOT isolated
- Ethernet 10/100Mbps Auto MDI-X port.
- Internal DMX512-A line biasing termination as per ANSI E1.20 RDM requirements
- Art-Net, Art-Net II, Art-Net 3, Art-Net 4 and sACN/E1.31 support.
- ANSI E1.20 RDM compliant with RDM over Art-Net.
- Universe Sync Art-Net, sACN and Madrix Post Sync.
- Both HTP and LTP merging of 2 Art-Net streams per port
- sACN Priority
- Internal merging capability with DMX In and DMX Out ports on same Universe.
- IPv4 Addressing
- IGMPv2 for multicast network management
- DMX512 Frame Rate: Adjustable per port
- Operating temperature -10°C to 50°C non-condensing dry environment

7. WARRANTY

DMXKING HARDWARE LIMITED WARRANTY

What is covered

This warranty covers any defects in materials or workmanship with the exceptions stated below.

How long coverage lasts

This warranty runs for two years from the date of shipment from an authorized DMXking distributor.

What is not covered

Failure due to operator error or incorrect application of product.

What DMXking will do

DMXking will repair or replace, at its sole discretion, the defective hardware.

How to obtain service

Contact your local distributor https://dmxking.com/distributors

8. ACKNOWLEDGEMENTS

Art-Net™ Designed by and Copyright Artistic Licence

9. DECLARATIONS

The eDMX8 MAX DIN has been tested against applicable standards and certified compliant as below.

Standard	
IEC 62368-1	Audio/Video and ICTE Safety Requirements
IEC 55032	Radiated Emissions
IEC 55035	EMC Immunity Requirements
FCC Part 15	Radiated Emissions
RoHS 3	Restriction or Hazardous Substances

Certification	**Country**
CE	Europe
FCC	North America
RCM	New Zealand / Australia
UKCA	United Kingdom