

# OCTO MK3 – Datasheet

eDMX to SPI Pixel Controller with Standalone Mode & Overdrive Feature



The ENTTEC OCTO MK3 is a high-performance, compact, and reliable pixel controller designed to convert up to 32 universes of Art-Net, sACN, Kinet, and ESP to SPI pixel data with port sync.

It features flexible pixel output configuration, supporting up to 8 universes per port, with 2 outputs when using Clock support and up to 4 outputs when repurposing Clock as additional data ports. The overdrive mode is automatically activated when outputting more than 6 universes per port, ensuring seamless performance under high data loads.

Engineered for maximum versatility, the OCTO MK3 supports over 20 industry-standard pixel protocols and enables custom protocol creation for specialised applications (refer to the Custom Protocol Creation Guide). With dual Ethernet ports, it facilitates network daisy-chaining, optimising data distribution without additional hardware.

With an inbuilt FX engine, the Standalone Mode allows users to create gradient effects with real-time previews directly through the web interface. The device can be configured to run standalone upon power-up, eliminating the need for a dedicated DMX source.

## Features

- **Flexible pixel output configuration – Supports data and clock signals or can repurpose clock for additional data output.**
- **Supports up to 32 universes of Art-Net, sACN, Kinet and ESP with overdrive mode.**
- **Extensive protocol support, including both data and clock-based configurations.**
- **Custom pixel protocol creation for specialised applications.**
- **Daisy-chain networking for efficient data distribution.**
- **Supports DHCP and Static IP addressing.**
- **Grouping functionality reduces input channel count for streamlined configuration.**
- **Surface or TS35 DIN rail mounting options.**
- **Identify/Reset button for quick wiring verification without a network connection.**
- **Port Sync ensures all ports stay synchronised, preventing inconsistencies and ensuring smooth operation.**
- **User-friendly web interface for intuitive device configuration and firmware updates.**
- **Inbuilt FX engine for standalone gradient effects without requiring an external DMX source.**

**Note:** OCTO does not provide power to lighting fixtures.

<b>Connectors</b>	2 x Network (RJ45)	
	2 x Multifunctional Data Port (4Pin Screw Terminal)	
	1 x Power Port (2Pin Screw Terminal)	
<b>IP Rating</b>	IP20	
<b>Input Voltage</b>	5-60V DC	
<b>Max. Power Draw</b>	5W	
<b>Max. Heat Dissipation</b>	4.5 W	
<b>Max. Output Voltage</b>	5V	
<b>Max. Output Current</b>	50mA	
	<b>eDMX Input Protocol</b>	Art-Net
	ESP	KiNet
<b>Network Speed</b>	10/100Base-T	
<b>Network Discovery</b>	ENTTEC's EMU software	
<b>Network Configuration</b>	Static (Default 192.168.0.10) / DHCP	
<b>Recommended Network Device Quantity Per Chain</b>	Chains of up to 8 devices give optimum synchronisation between outputs.	
<b>Data Output Type</b>	SPI (NZR)	
<b>Max. eDMX -&gt; Pixel Conversion Per Device</b>	32 Universes (16,384 channels)	
<b>Max. Pixels Controllable Per Device</b>	RGB	5,440 (1,360 per port)
	RGBW	4,096 (1,024 per port)
<b>Max Frame Rate</b>	100fps	
<b>Firmware Updates</b>	Web Interface	
<b>LED Indicators</b>	Forward-facing LED indicator	
	Network link/activity (integrated into RJ45 ports)	
<b>Cooling Method</b>	Convection	
<b>Operating Temperature</b>	-20°C to 50°C / -4°F to 122°F	
<b>Operating Humidity</b>	5 to 95% (non-condensing)	
<b>Body Material</b>	ABS plastic	
<b>Mounting Options</b>	Surface & TS35 DIN Rail mount	
<b>Unit Dimensions</b>	100.5*77.9*31 mm	
<b>Unit Weight</b>	0.08kg / 0.18lbs	
<b>Shipping Dimensions</b>	165*145*43 mm	
<b>Shipping Weight</b>	0.18kg / 0.39lbs	
<b>Warranty</b>	3-year return to the base manufacturer warranty	

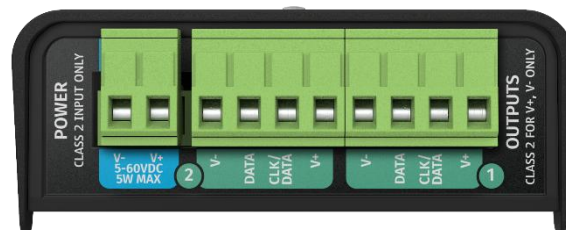
## Certification



## Box Content

- OCTO MK3
- 2 x WAGO connectors
- 1 x Din mounting clip & screws

## Phoenix Connector



### Supported Pixel Protocols (Pre-listed):

APA102, APA104, GS8208B, SJ1221 (16bit), SK6805, SK6812, SK6813, SM16703, SM16704, SPXL-16bit, TLC5973 (16bit), TM1804, TM1812, TM1814, UCS1903\*, UCS2903\*, UCS2904\*, UCS7604, UCS8903 (16bit)\*, UCS8904 (16bit)\*, WS2811, WS2812, WS2812B, WS2813, WS2814, WS2815, WS2818\*, 9PDOT (16bit)\*

IMPORTANT: If you wish to control a protocol marked with a \* and the option to do so is missing in the current firmware interface for your product, please select WS2811 or WS2812b instead for your LEDs to work properly.

## Safety

- Please refer to the OCTO MK3 User Guide for wiring diagrams & Installation guidance.
- Always refer to this product's safety notes before handling or specifying it on your project.

## Ordering Information

For further support and to browse ENTTEC's range of products visit the [ENTTEC website](https://www.enttec.com).

Item	SKU
OCTO MK3	71522

# enttec.com

MELBOURNE AUS / LONDON UK / RALEIGH-DURHAM USA / DUBAI UAE

Due to constant innovation, information within this document is subject to change.

Distributor:



Phone: 407-857-8770

Fax: 407-857-8771

Email: [sales@techni-lux.com](mailto:sales@techni-lux.com)

[www.techni-lux.com](http://www.techni-lux.com)