ENTTEC

PIXELATOR MINI – Datasheet

eDMX to SPI Pixel Controller: Transmitting up to 32 Universes of SPI Data Across Long Distances in the PLINK System

AUSTRALIAN DESIGNED + MADE

ENTTEC's PIXELATOR MINI serves as the central hub in the PLINK control system, offering an impressive 8-port Ethernet pixel converter. This versatile device efficiently transforms 16 Universes (32U in overdrive mode) of Art-Net, sACN, and ESP into the SPI protocol in the PLINK System, ensuring robust data integrity over distances of up to 300m.

Connect a PLINK INJECTOR to each port, which converts PLINK control data to SPI protocols, seamlessly transmitting signals up to 3m to pixel fixtures. This satellite system, coupled with the compact and dependable PLINK INJECTOR is a perfect solution for large and extensive projects.

The PIXELATOR MINI supports more than 20 pre-listed LED protocols and allows for creating custom protocols (criteria apply). All firmware updates and intuitive configuration management are conveniently accessible through its local host web interface.

Depending on your project, you can partner the PIXELATOR MINI with an indoor or outdoor PLINK INJECTOR compatible with your installed pixels. Alternatively, pair it with our CVC4 AUTO-ADDRESSING CONSTANT VOLTAGE LED DIMMERS - to create large LED control systems with minimum configuration.

Features

- **Converts eDMX (e.g. Art-Net, sACN, and ESP) to SPI in PLINK System for pixel control over long distances.**

- **1* RJ45 Ethernet input (10/100 Mbps) to 8* RJ45 output ports each providing PLINK data output over Cat5e/Cat6 cable.**

- **Up to 32 Universes (4U per port) pixel control in overdrive mode.**

- **Active IEEE 802.3AF Active PoE or 12-24v DC power input.**

- **All ports feature ESD surge protection and resettable fuses to block external faults & electrical noise propagation through control infrastructure.**

- **Compatible with ENTTEC PLINK INJECTOR range.**

- **Compatible with ENTTEC CVC4 RGBW auto-addressable LED dimmer.**

- **Allows users to create and customise SPI pixel protocols** (criteria apply, see see 'Custom Protocol Creation Guide' document).

- **Pixel arrangement including pixel order, pixel grouping for each PLINK output is individually configurable.**

- **Multiple mounting options: 1U Half Width Rack, 19" Rack, Surface mount, TS-35 DIN mount.**

Pre-listed Support Protocols*:

APA 104, GS8208B*, SPXL (16bit & 8bit), SK6812, SJ1221 (16bit & 8bit), TM1804, TM1812, TM1814, TLC5973 (16bit & 8bit), UCS1903*, UCS2903*, UCS2904*, UCS8903 (16bit & 8bit), UCS8904 (16bit & 8bit), WS2811*, WS2812*, WS2812B, WS2813*, WS2815*, WS2818*, 9PDOT (16bit & 8bit).

* 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.
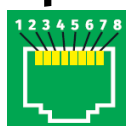

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Specification

Connectors	8* PLINK output (RJ45)
	1* Power input (DC)
	1* Ethernet (RJ45)
ESD Protection	Resettable fuse & TVS suppression per port.
Surge Protection	Yes (all ports)
IP rating	IP20
LED status indicator	Forward-facing LED indicator
	Network link/Activity (integrated into RJ45 port)
Input Protocols	Art-Net	sACN
	ESP	
Output Protocol	SPI in PLINK System
Max. Output Universe	32 Universes
Network Speed	10/100Base-T
Network Configuration	Static / DHCP
Configuration & Update	Web Interface
Input Voltage	12-24V DC / PoE IEEE802.3AF
Max. Power Draw	8 Watts
Cooling Method	Convection
Environmental Operating Temperature	-20°C to 50°C 32°F to 122°F
Environmental Operating Humidity	5- 95% (non-condensing)
Body Material	ABS + anodized aluminium
Rack Ear Material	Powder-coated aluminium.
Unit Weight	0.44kg /0.97lbs
Shipping Dimensions	390*210*110 mm
Shipping Weight	0.79kg / 1.74lbs
Warranty	3-year return to base manufacturer warranty

Certification

RJ45 Pinout for PLINK Output
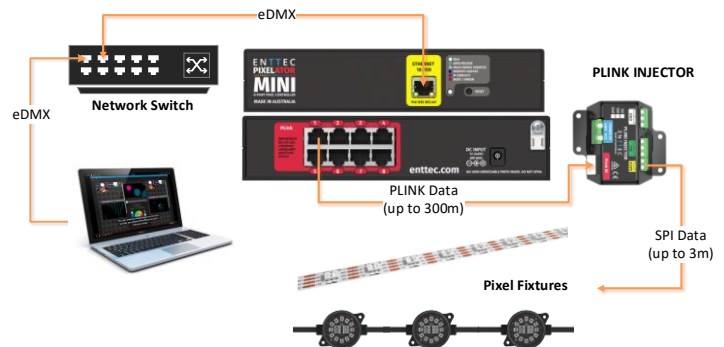
- Pin 1: Data +
- Pin 2: Data –
- Pin 7/8: Ground

Do not use crossover cables with any Plink device.

Box Content

- PIXELATOR MINI (70067)
- 1 x 2m Cat5 cable (79102)
- 1 x 12V PSU adaptor with international plugs.
- Rack mounting bracket, Surface/Din mounting bracket, Din Clip & screws.
- 1 x ELM Promo Code – 16U (Promo Code sticker on device)[1].

Application Diagram

Safety

- This unit is intended for indoor use only. Do not expose to rain or moisture, doing this will void the warranty.
- Make all the connections before you power it.
- Do not remove the cover, there are no user serviceable parts inside.
- Never plug this unit into a dimmer.
- Fit this unit in an area that will allow sufficient ventilation.
- Label any PLINK output cable and DO NOT connect to non-PLINK devices (i.e. Ethernet Switches). Connecting incompatible systems could result in permanent damage to equipment.

Ordering Information

For further support and to browse ENTTEC's range of products visit the ENTTEC website.

Item	SKU
PIXELATOR MINI[2]	70067
PLINK INJECTOR (5v)	73546
PLINK INJECTOR (12v-24v)	73544

enttec.com

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

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[1] Use the Serial Number to claim free license for EMU software unless there is a Promo Code sticker on the device.
[2] This datasheet is for PIXELATOR MINI (SKU: 70067) released after SN: 2392325, please load the latest firmware V2.0 onwards.
See latest User Manual from website for revision history regarding ELM Promo Code and appropriate firmware version of your device.