

PIXELATOR MINI – Datasheet

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



The ENTTEC PIXELATOR MINI is a high-performance 8-port Ethernet pixel controller designed for large-scale LED installations, converting up to 32 Universes of Art-Net, sACN, and ESP protocols into SPI within the PLINK ecosystem.

PIXELATOR MINI guarantees reliable data integrity over 300 metres and connects seamlessly to PLINK INJECTORS, extending signals up to 3 metres to pixel fixtures.

Supporting over 20 pre-configured LED protocols with options for custom protocol creation (criteria apply), the PIXELATOR MINI offers versatility for tailored lighting requirements. Configuration management and firmware updates are accessible via its local host web interface, ensuring intuitive control and seamless updates.

For optimal project adaptability, the PIXELATOR MINI can be paired with either indoor or outdoor PLINK INJECTORS to suit your chosen pixel fixtures or with CVC4 Auto-Addressing Constant Voltage LED Dimmers, delivering large-scale LED control with minimal configuration and maximum flexibility.

Features

- Converts eDMX (e.g. Art-Net, sACN, and ESP) to SPI for pixel control over long distance.
- 1* RJ45 Ethernet inputs (10/100 Mbps) to 8* RJ45 output ports, fully compliant with Cat5e/Cat6 cable for easy installation.
- Up to 32 Universes (4U per port) pixel control featuring 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, CCC4 RGBW auto-addressable LED dimmer.
- Allows users to create and customise SPI pixel protocols (criteria apply, 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.

Supported Pixel Protocols (Pre-listed)

APA104, GS8208B*, SJ1221 (16bit & 8bit), SK6812, SPXL (16bit & 8bit), TLC5973 (16bit & 8bit), TM1804, TM1812, TM1814, 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.

Specification

Connectors	8* PLINK output (RJ45)	
	1* Power input (DC Jack)	
	1* Ethernet (RJ45)	
Power Input	12-24V DC	
Current Draw	100-270mA	
Max. Power Draw	3.2W	
ESD Protection	Resettable fuse & TVS suppression per port.	
Surge Protection	Yes (all ports)	
IP rating	IP20	
Power Over Ethernet	PoE IEEE802.3AF	
Network Speed	10/100Base-T	
IGMP Version	IGMPv2	
Network Configuration	Static / DHCP	
Configuration & Update	Web Interface	
Input Protocols	Art-Net	sACN
	ESP	
Output Protocol	SPI in PLINK System	
Max. Output Universe	32 Universes	
Max Refresh Rate	100fps	
LED status indicator	Forward-facing LED indicator	
	Network link/Activity (integrated into RJ45)	
Cooling Method	Convection	
Environmental Operating Temperature	0°C to 50°C 32°F to 122°F	
Environmental Operating Humidity	5- 95% (non-condensing)	
Body Material	ABS + anodised aluminium	
Unit Dimension	200*120*42 mm	
Unit Weight	0.43kg / 0.95lbs	
Shipping Dimensions	335*265*78 mm	
Shipping Weight	1.15kg / 2.54lbs	
Warranty	3-year return to base manufacturer warranty	

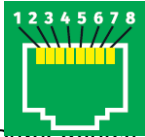
Certification



¹ 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.

RJ45 Pinout for PLINK Output

- Pin 1: Data +
- Pin 2: Data –
- Pin 7/8: Ground

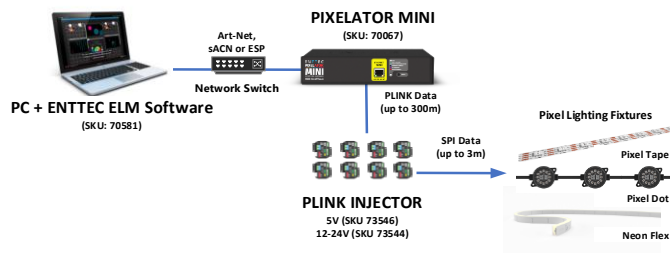


Do not use crossover cables with any Plink device.

Box Content

- PIXELATOR MINI (70067)
- 1 x Cat5 cable (79102)
- 1 x 12V PSU adaptor with international plugs.
- Mounting Accessories

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 ¹	70067
PLINK INJECTOR (5v)	73546
PLINK INJECTOR (12v-24v)	73544