

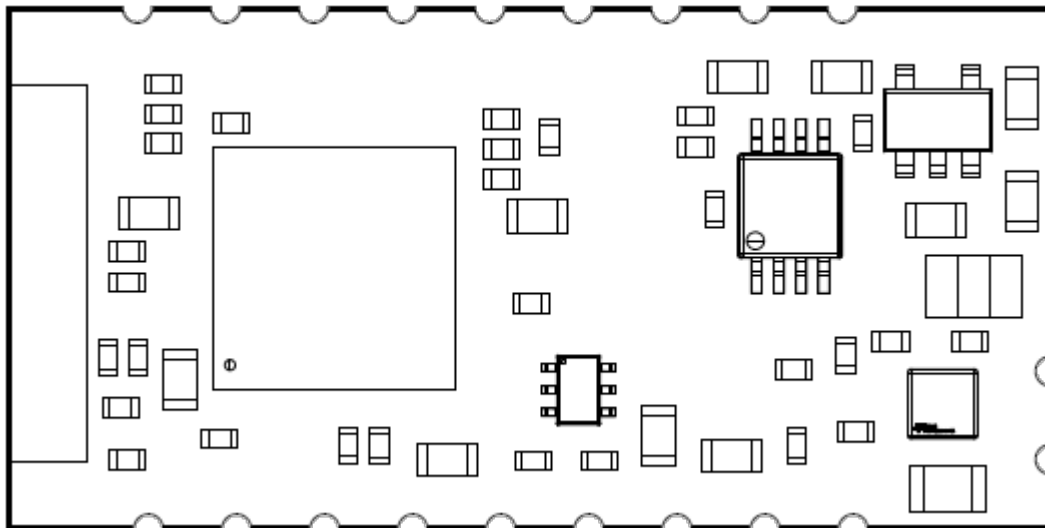
PxLNet Smart Receiver

Specification sheet

PUSHING CONTROL BOUNDARIES



The DiGidot PxLNet Smart receiver takes fixtures to the next level: Support for various protocols, Long-distance, sensors, RDM compatible and many more things.



Top



Bottom

DiGidot PxLNet Smart Receiver

Specification sheet

Description

Experience the ease of integration with its compact and lightweight design, effortlessly connecting to any LED fixture's PCB.

Unify control with single, unified protocol, eliminating the need for multiple controllers and simplifying maintenance. Embrace ongoing innovation with its upgradeable firmware, staying ahead of the curve with the latest features and enhancements. Harness real-time data exchange with RDM communication, enabling proactive maintenance and effortless lighting adjustments. Enhance responsiveness with its two sensor inputs, connecting environmental sensors for adaptive control tailored to specific requirements. Fine-tune your illumination with pixel adjustments, creating dynamic groups of pixels or adjusting grayscale for personalized ambiances.

Empower your LED fixtures with the PxLNet Smart Receiver and experience the transformative power of smarter lighting.

Features

In- /Output

- Flexible input support: Choose from 30 different SPI protocols and DMX
- Flexible dual output support: Send DMX (with high-speed options), SPI and PxLNet over long- range
- Long range Input by design, no more short lengths required
- Works with any Third-party DMX/RDM controller
- Up to 6 universes of Input
- Up to 2x 4 universes of Output

Sensors

- Support for 2 analog sensors
- Support for digital sensors that use the I²C protocol

Pixel Manipulation

- Built-in upscaling from 8 to 16 bit
- Pixel/channels grouping
- Convert RGB to RGBW, vice versa, add or remove channels with the flexible color order
- Show a fallback color when there is no signal received
- External Status LED support

Automation

- Automatic adjust output power based on current temperature
- Automatic addressing
- Automatic power supply control when there is no signal received, to turn off

For the fixture manufacturer

- Fully configurable form our web portal for manufacturers
- Parameters are fully RDM compatible
- Determine which parameters are user configurable

Extra

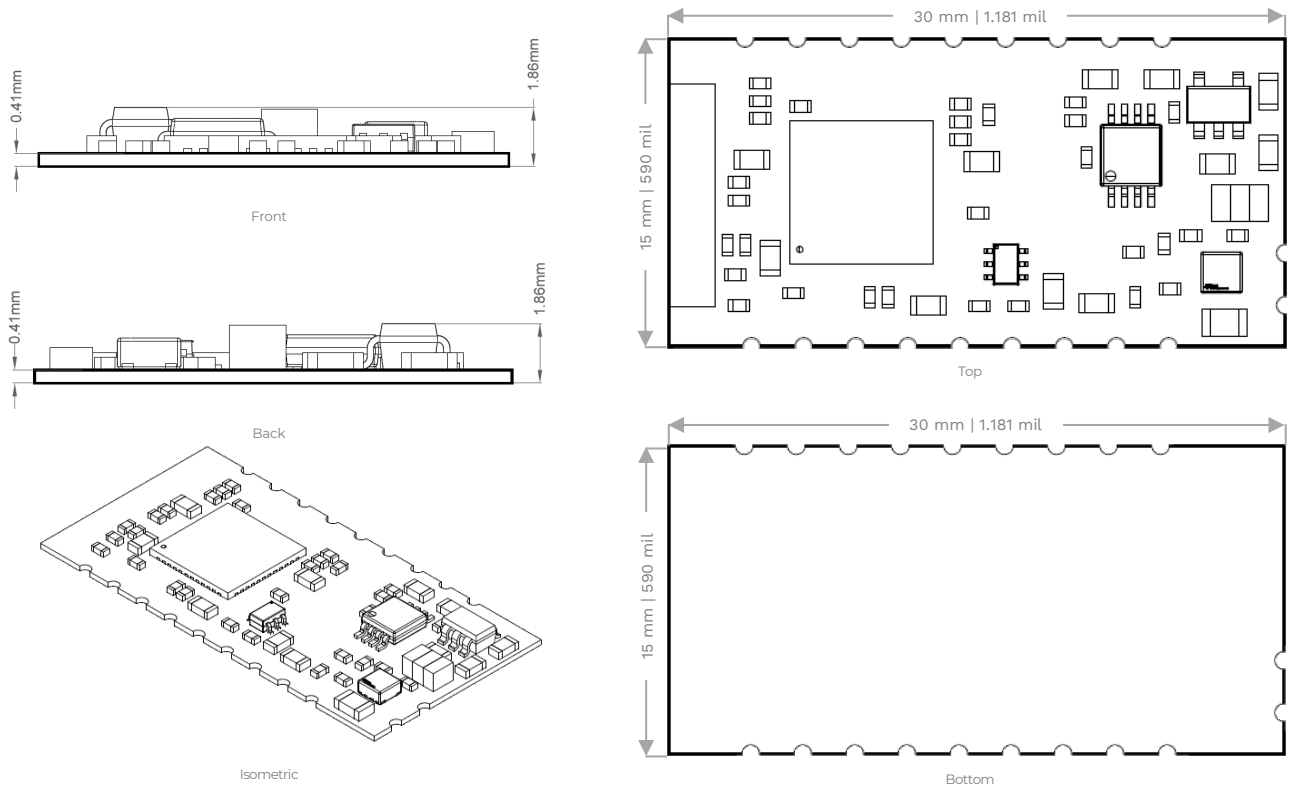
- Over the Air updates

For a full explanation about the features, refer to our Manual

Applications

- Installation box for projects
- Smart Linear

Technical drawings



Absolute Maximum

	Name	Min	Max	Unit
Voltage	V _{in} to GND	0	56	V
Voltage	GPIO to GND	0	5	V
Voltage	External Sensor to GND	0	3.3	V
T _j	Junction temperature	0 32	50 122	°C °F
T _{stg}	Storage temperature	-20 -4	50 122	°C °F

Specifications

Electrical

Input voltage	5-48 VDC
Max. Power consumption	1.5 W

Mechanical

Housing material	N/A
Dimensions	30 x 15 mm 1181.1 x 590.5 mil

Net device weight:	2 gr 0.0706 oz
Package weight:	4 gr 0.1411 oz
Mounting	Solder Joint

Environmental

Operation Temperature (Tc)	0 to 80 °C 32 to 176 °F ¹
Ambient Temperature (Ta)	0 to 60 °C 32 to 140 °F ¹
Storage Temperature	-20 to 50 °C -4 to 122 °F ¹
Operating relative humidity	90% (indoor use only) ¹

Protection

IP rating	IP00
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Control

Input Protocols	DMX, RMD, SPI ² , PxLNet
Output Protocols	DMX SPI protocols (check supported IC's list) PxLNet
Programming & control	DiGidot PxLNet web-based user interface app Any type of RDM and DMX Compatible console

Sensor

Internal	
Temperature	-10 to 60 °C 14 to 140 °F ¹
Input Voltage	4.5 - 55 VDC
External	
Current sense	0 - 3.3 VDC
Aux	0 - 3.3 VDC

Connectivity

Connectors	Solder Joint
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Quality

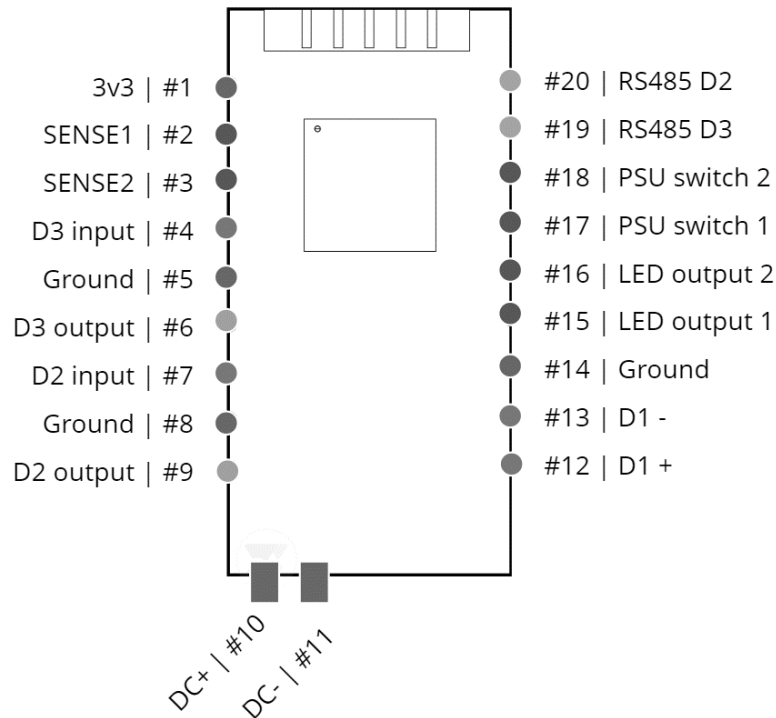
Warranty	1 years carry in factory warranty
Compliances	CE, RoHS ²
Applied standards	EN60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013, IEC60950-1/EN60950-1, EN61006-6-3, EN55032 ²

¹ To be verified.

² To be specified and/or pending.

Pinout

Pinout description



Pinout definition

Name	Abbreviation	Definition
Pin type	S I O I/O	Supply pin Input only pin Output only pin Input/Output pin
I/O Structure	FFT ST FT TT	55 V Tolerant 16 V Tolerant 5 V Tolerant 3.3 V Tolerant

Pin Number	Normal Function	Pin Type	I/O Structure	Alternative Functions
1	VDD	TT	S	
2	ADC 1	TT	I	Program in AUX
3	ADC 2	TT	I	Current Sense
4	GPI 1 ¹	FT	I/O	
5	VSS		S	
6	Output 1 ¹	FT	O	SPI (LED) DMX ² RDM ² PxLNet ²
7	GPI 2 ³	FT	I/O	
Pin Number	Normal Function	Pin Type	I/O Structure	Alternative Functions
8	VSS		S	
9	Output 2 ⁴	FT	O	SPI (LED) DMX ⁵ RDM ⁵ PxLNet ⁵
10	VDD	FFT	S	
11	VSS		S	
12	Data +	ST	I/O	SPI (LED) DMX ⁵ RDM ⁵ PxLNet ⁵
13	Data -	ST	I/O	
14	VSS		S	
15	Status LED 1	FT	O	
16	GPIO	FT	I/O	Status LED 2 Program out
17	GPIO	FT	I/O	PSU Switch 1
18	GPIO	FT	I/O	PSU Switch 2
19	GPIO	FT	I/O	R/W ^{2 4}
20	GPIO	FT	I/O	R/W ^{3 6}

¹ Can combined to create a RS485 port 3

² Requires additional Hardware

³ Can combined to create a RS485 port 2

⁴ Can combined to create a RS485 port 2

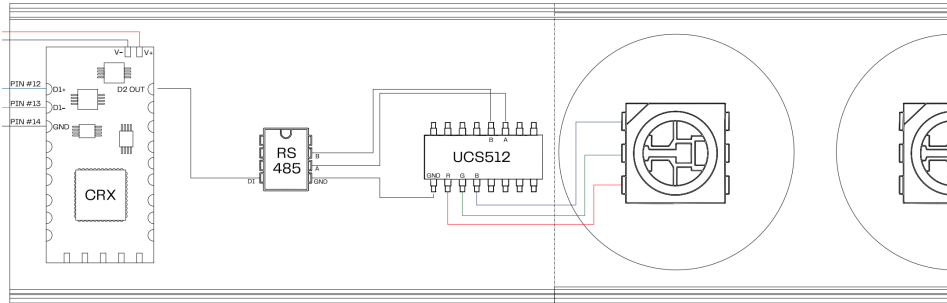
⁵ Requires additional Hardware

⁶ Can combined to create a RS485 port 3

Applications

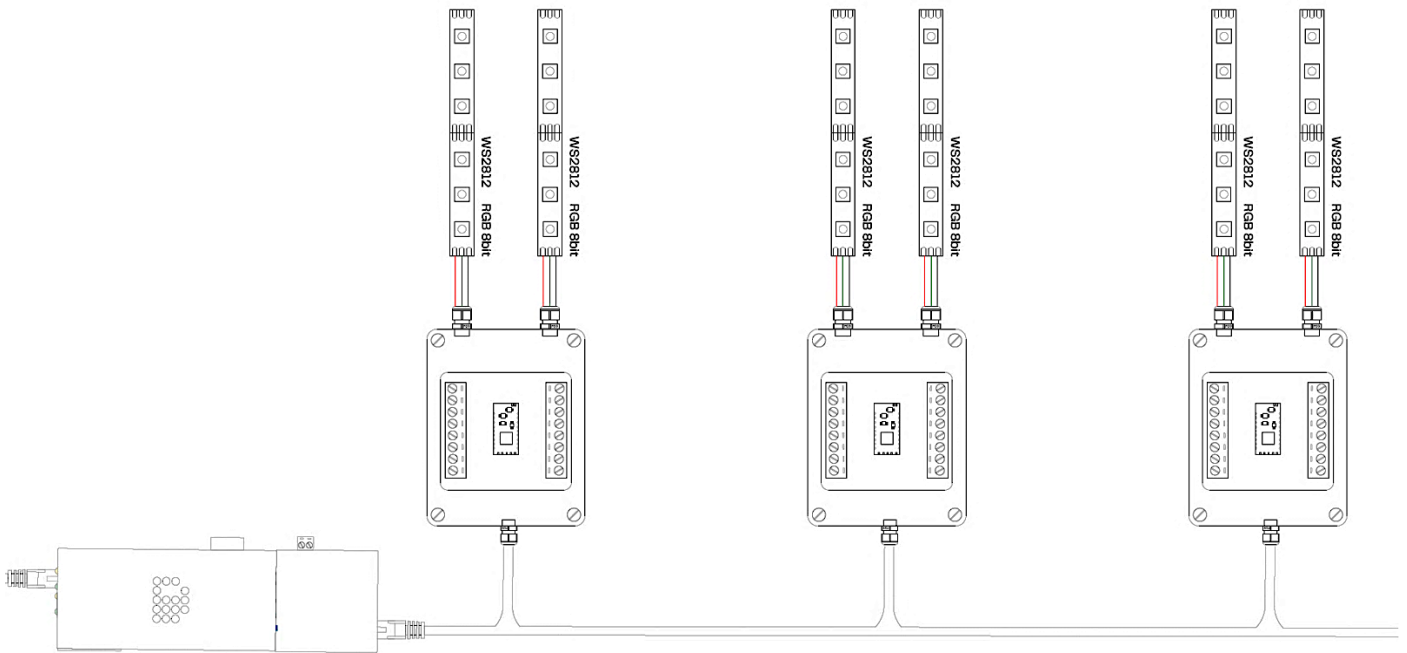
Integrate into a fixture

The Smart receiver can be integrated into any fixture that's using either DMX or SPI. Check the manual if the LED IC in your fixture is supported.



Breakout / bus topology

The Smart Receiver can be used on a custom PCB breakout board, which is placed into a junction box and part of a bigger installation. Check the manual for the complete details.



Mechanical, Packaging, Orderable Information

Content

- 1x PxLNet Smart Receiver

Order information

Product Name	Article nr.	EAN Code
DiGidot PxLNet Smart Receiver	2091120	8720168560179



PxLNet Smart Receiver

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