4xSPI Splitter & Range Extender
ACL-SPI-Tx/0-SPL/4

Overview

The 4xSPI Splitter & Range Extender is a versatile device designed to extend and distribute SPI signals across multiple channels, ensuring reliable and synchronized communication over long distances. This unit splits a single SPI signal into four independent channels, each amplified to maintain signal integrity, even in complex and large-scale installations.

Ideal for use with LED addressable strips and other SPI-controlled devices, it helps overcome the limitations of standard SPI communication by boosting signal strength and extending the range. Paired with ACL-SPI-EXT-Rx receivers, the 4xSPI Splitter & Range Extender ensures stable and consistent performance across extended distances, making it an essential tool for projects requiring precision and scalability across multiple SPI outputs.

Features

Single Channel to 4 Split Channels
Splits and amplifies a single SPI signal into four independent channels, enabling long-distance transmission without signal degradation.

Signal Integrity Maintenance
Ensures signal integrity and stability, preventing degradation and ensuring reliable communication over extended distances.

High-Speed Data Handling
Supports high-speed SPI data rates, meeting the demands of fast and responsive LED displays and lighting systems.

Multi-Voltage Support
Compatible with both 3.3V and 5V TTL-SPI logic levels, providing versatility across various lighting systems and LED devices.

Compact and Robust Design
Features a compact, durable design that easily integrates into existing setups without occupying excessive space.

Plug-and-Play Operation
Simple, intuitive installation with minimal configuration required, allowing for quick and easy setup.

Power Supply Flexibility
Operates on input voltages 12V DC or 24V DC, ensuring flexibility across power supply configurations.

Reverse Polarity and Short Circuit Protection
Integrated protection against reverse polarity and short circuits, ensuring safe operation.

LED Power Indicator
Provides visual feedback for power status, aiding in monitoring and troubleshooting.

Wide Operating Temperature Range
Designed to function in harsh environments with an operating temperature range from -20°C to +55°C.

Specifications

Operating Voltage................	DC 12V / 24V Class 2 Power Supply
Extended Signal Range.......	Max 1000ft with Cat5e / Cat6 Ethernet Cable
TTL-SPI Channels...............	1
Corresponding Differential SPI Outputs..........................	4
Compatible Range Extender (Receiver)...........................	ACL-SPI-EXT-Rx
Maximum Power..................	10W Each
Signal In..............................	TTL-SPI - Channel 1
Signal Out...........................	Differential SPI Outputs 4
Dimensions (LxWxH)...........	3.0" x 1.8" x 0.88"
Operating Temperature.......	-20 to +55 °C
Warranty..............................	5 Years
Cerifications........................	cULus Certification

Wire Port Connections:

Terminal Block

12V ~ 24V DC Power Input	V+, G
TTL-SPI Signal In...............	1, G

RJ45

Corresponding Differential SPI Outputs Ch 1 to 4........	1, 2, 3, 4

Power Indicator
Green LED Light on when 12V / 24V DC Power In

Where to Buy

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Compatible Power Supplies

	Power Supply Part Number	Output Watts	Input Voltage	Output Volts DC
12V	ACV125-120-277V	60W	120-277	12.0
	ACV2125-120-277V	120W (60 + 60)	120-277	12.0
	ACV3125-120-277V	180W (60 + 60 + 60)	120-277	12.0
	CVW125-120-277V*	60W	120-277	12.0
	CVW2125-120-277V*	120W (60 + 60)	120-277	12.0
	CVW3125-120-277V*	180W (60 + 60 + 60)	120-277	12.0
24V	CV244-120-277	96W	120-277	24.0
	CVW244-120-277*	96W	120-277	24.0
	CVW2244-120-277*	192W (96 + 96)	120-277	24.0
	CVW3244-120-277*	288W (96 + 96 + 96)	120-277	24.0

*IP68 rated