

XS2924

Quad, IEEE 802.3 at/af PSE Controller for Power-over-Ethernet

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1 Overview

1.1 Product Overview

XS2924 is a quad, power sourcing equipment (PSE) power controller designed for use in IEEE® 802.3at/af-compliant PSE. This device provides powered device (PD) discovery, classification, current limiting, and load disconnect detection. It supports both fully automatic operation and software programmability. The device also supports new 2-event classification and Class 5 for detection and classification of high-power PDs. Its single power supply delivers up to 70W per port (Class 5 enabled) and provides large capacitance detection for legacy PDs.

Its I²C-compatible, 3-wire serial interface for software configuration and programming offers instantaneous readout of port current and voltage. Enhanced programmability increases design flexibility and provides field diagnostics for various non-standard system applications.

The device is available in a space-saving, 32-pin QFN32L (5 mm × 5 mm) and is rated for the automotive (from -40 °C to +105 °C) temperature range.

1.2 Features

- Compatible with IEEE 802.3 at/af
- Current sensing resistor of 0.25Ω
- Up to 70W per port
- 9-bit real-time monitoring of port current and voltage
- I²C compatible, 3-wire serial interface
- Supports DC load disconnection detection
- Supports single-supply operation
- Over-temperature protection
- 32-PIN QFN32L (5 mm × 5 mm) power package

1.3 Applications

- Switches/Routers
- Midspan power injectors

1.4 Ordering Information

PART	TEMP RANGE	PIN-PACKAGE
XS2924	-40 °C to 105 °C	QFN5 × 5-32L

2 Simplified Operating Circuit

