



TRILINK

TRILINK TL-SW16P-2U1S

16-Port AI-Enhanced PoE Switch

Product Overview

The **TRILINK TL-SW16P-2U1S** is a professional-grade **AI-Enhanced PoE switch** engineered for medium-scale surveillance and enterprise networking deployments.

It delivers stable power and data through **16 PoE Fast Ethernet ports**, supported by **2 Gigabit uplink ports** and **1 Gigabit SFP uplink** for high-speed backbone connectivity.

Designed for continuous operation, this switch ensures reliability, security, and simplified maintenance in **CCTV systems, offices, warehouses, campuses, and commercial environments**.

Key Features

- 16 × 10/100 Mbps PoE RJ45 ports
- 2 × 10/100/1000 Mbps Gigabit RJ45 uplink ports
- 1 × Gigabit SFP uplink port
- IEEE 802.3af / 802.3at compliant
- Total PoE power budget: 250W
- Up to 30W PoE output per port
- AI Watchdog for automatic device recovery
- 250 m long-distance PoE transmission (Extend Mode)
- One-key VLAN isolation
- 6KV lightning protection on all ports
- Heavy-duty metal rack-mount chassis



AI & Intelligent Management Functions

AI & Intelligent Management Functions

The built-in **AI Watchdog** continuously monitors connected PoE devices such as IP cameras. If a device becomes unresponsive due to power or network issues, the switch **automatically restarts PoE power**, restoring normal operation without manual intervention.

- Reduces maintenance visits
- Improves system uptime
- Ideal for 24/7 surveillance environments

VLAN Isolation Mode

The **one-key VLAN isolation function** separates PoE ports from each other while keeping uplink ports connected.

This prevents broadcast storms and unauthorized access, significantly **improving network security and stability**.

- Enhanced security for multi-camera networks
- Stable and reliable operation

Long-Distance PoE Transmission (Extend Mode)

Supports **PoE transmission up to 250 meters** on selected ports, making it suitable for large-area installations such as parking lots, warehouses, and campuses.

- Reliable long-distance power and data delivery

Enterprise-Grade Protection & Stability

- **6KV lightning protection** on all Ethernet ports
- Intelligent power management and overload protection
- Metal enclosure designed for long-term 24/7 operation

Technical Specifications

Hardware Specifications

Item	Description
Model	TL-SW16P-2U1S
PoE Ports	16 × 10/100 Mbps RJ45
Uplink Ports	2 × Gigabit RJ45

Item	Description
SFP Port	1 × Gigabit SFP
PoE Standard	IEEE 802.3af / IEEE 802.3at
Max PoE Output (Per Port)	30W
Total PoE Power Budget	250W
MAC Address Table	8K
Backplane Bandwidth	9.2 Gbps
Switching Method	Store-and-Forward
Lightning Protection	6KV (per port)

Power Specifications

Item	Description
Power Input	AC 110–240V, 50/60Hz
PoE Output Voltage	52V
Protection	Overload & short-circuit protection

Physical & Environment

Item	Description
Housing	Metal
Installation	Rack-mount
Dimensions	312 × 185 × 46 mm
Operating Temperature	-10°C to +55°C
Storage Temperature	-40°C to +70°C

Item	Specification
Operating Humidity	10% – 90% (non-condensing)
Warranty	1 Years

Package Contents

Item	Description
16 Port Poe Switch	1
Power Adapter	1
Mounting Accessories	1 Set
User Manual	1

Applications

- Medium-scale CCTV surveillance systems
- Office & enterprise networks
- Warehouses and industrial environments
- Access control and security systems
-

Product Detail



Application Diagram

