



## S100U PoE Media Converters

### Highlights

- This series of media converters with PoE feature enables power delivery over Ethernet cables. It simplifies device deployment as it can power connected devices like IP cameras or wireless access points, eliminating the need for separate power supplies.
- Support high-speed data rates to meet modern networking demands. Whether for cloud-based services or high-definition video streaming, they ensure smooth and efficient data transfer with minimal latency.
- Equipped with state-of-the-art technology for seamless conversion between different media types, such as electrical and optical signals. This ensures stable signal quality during the conversion process, reducing signal loss.
- Compatible with a wide range of networking equipment. They can work seamlessly with switches, routers, and other devices from various manufacturers, facilitating easy integration into existing networks.
- Feature a compact size that saves space in networking setups. Their installation is quick and hassle-free, with intuitive interfaces that make them accessible to both experienced engineers and novice users.
- Offer a cost-effective networking option. Combining PoE functionality with reliable media conversion at a reasonable price, they provide high-performance features without a large investment.

### Product Overview

The S100U series of media converters with PoE is a high-performance networking solution designed to meet the diverse needs of modern networks. These converters seamlessly integrate Power over Ethernet technology, allowing them to simultaneously transmit data and power over a single Ethernet cable. This feature simplifies network deployment and reduces clutter by eliminating the need for separate power cords for connected devices like IP cameras and wireless access points. They are engineered for efficient media conversion, ensuring stable and reliable signal transfer between different media types. With support for multiple IEEE standards, they are highly compatible with a wide range of networking equipment. Their compact and user-friendly design makes installation straightforward, whether in a large-scale data center or a small-office environment. Moreover, they offer a cost-effective solution, delivering advanced functionality at an affordable price, making them an ideal choice for various networking applications.

## PoE Functionality

The S100U series with PoE revolutionizes network power management. Leveraging the PoE technology, these media converters can supply power to compatible devices through Ethernet cables, following standards like IEEE 802.3af or IEEE 802.3at. This feature is a game-changer for network deployment. For instance, in a surveillance system, multiple IP cameras can be powered directly from the converter, eliminating the need for individual power adapters at each camera location. This not only streamlines the installation process but also reduces cable clutter, making the network more organized. Additionally, PoE allows for centralized power management. Network administrators can remotely monitor and control the power supply to connected devices, enabling functions like power cycling for troubleshooting or energy-efficient power scheduling.

## Robust Media Conversion Capabilities

These media converters are equipped with advanced technology for seamless media conversion. They can efficiently transform electrical signals from RJ45 ports to optical signals for fiber-optic connections and vice versa. High-quality components and sophisticated conversion algorithms are employed to minimize signal loss and distortion. In long-distance fiber-optic networks, the converters ensure that data transmitted over optical fibers can be accurately received and processed by electrical devices at the other end. Even in complex network environments with high-traffic loads, the stable media conversion capabilities maintain reliable data communication. This makes the S100U series suitable for a wide range of applications, from small-scale local area networks to large-scale wide area networks.

## Exceptional Compatibility

The S100U PoE-enabled media converters offer extensive compatibility. They adhere to multiple IEEE standards, including IEEE802.3, IEEE802.3i, IEEE802.3u, IEEE 802.3ab, IEEE802.3x, and IEEE 802.3z. This wide-ranging compliance allows them to work harmoniously with a vast array of networking equipment. In a multi-vendor network setup, these converters can be easily integrated without major reconfigurations. For example, they can communicate effectively with switches and routers from different manufacturers, regardless of whether they are legacy devices or the latest high-performance models. This compatibility simplifies network expansion and upgrades, as users can add new S100U converters to their existing infrastructure with confidence.

## User-Friendly and Cost-Effective Design

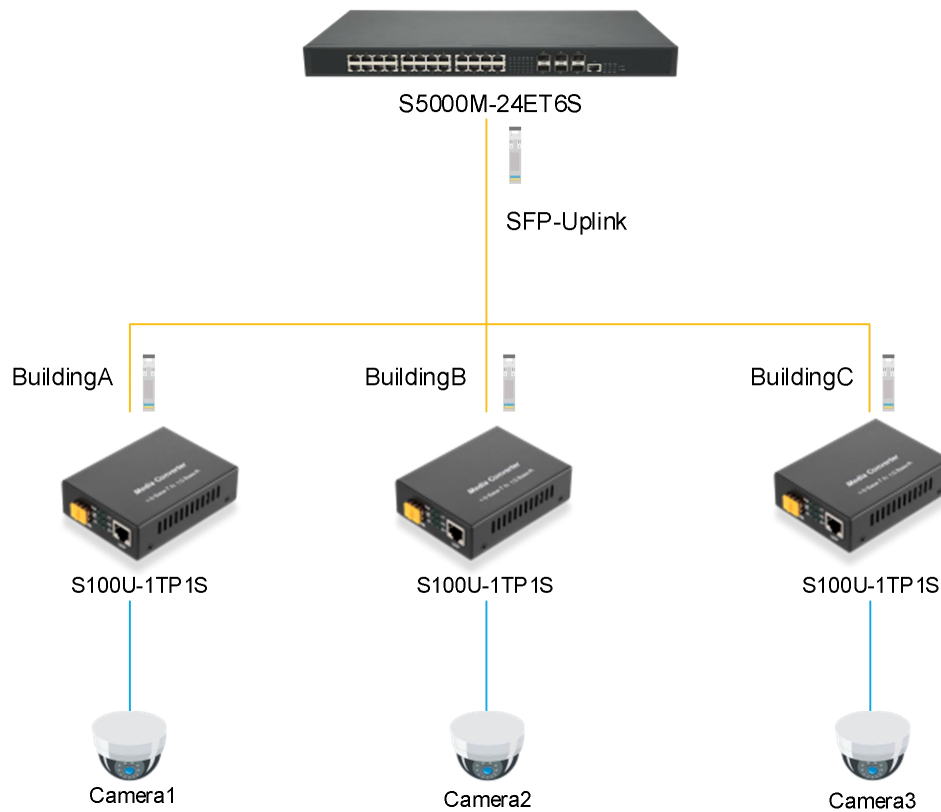
The design of the S100U series with PoE is both user-friendly and cost-effective. Their compact form factor makes them easy to install in various networking setups. In a small-office-home-office (SOHO) environment, they can be quickly set up on a desk or mounted on a wall, while in a large data center, they take up minimal space in network cabinets. The installation process is straightforward, with clear instructions and intuitive interfaces that require no specialized technical knowledge. From a cost-perspective, combining PoE functionality with media conversion in a single device reduces the overall cost of network deployment. There is no need to purchase separate power supplies for PoE-enabled devices, and the long-term reliability of the converters minimizes maintenance and replacement costs, making them an attractive option for budget-conscious users.

## Hardware Specifications

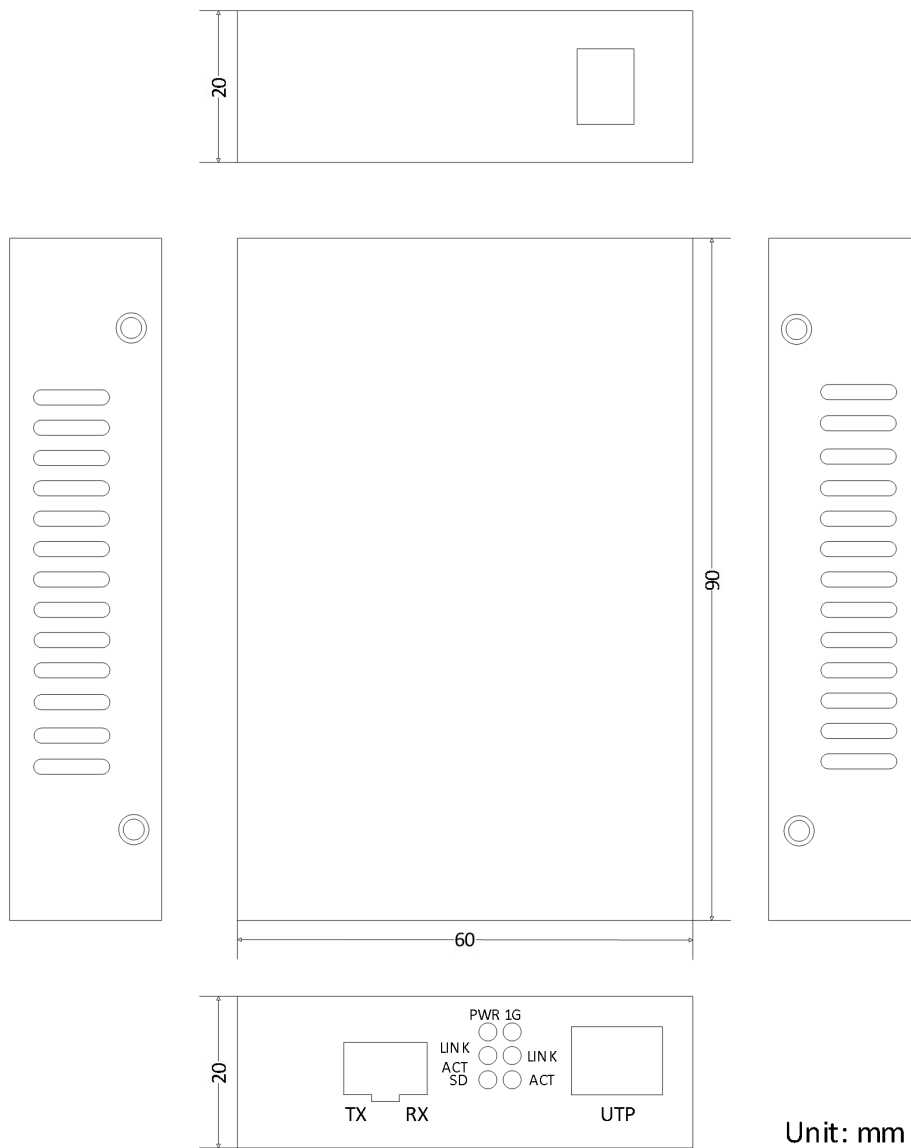
Parameter	Specification			
	S100U-1TP1S	S100U-1TP1SC35-20	S100U-1TP1SC53-20	S100U-1TP1DSC-20
Cooper Port (RJ45)	1*10/100/1000Base(Auto)			
Optical Port	1x 100/1000Base-X SFP	1x 100/1000Base-X Simplex SC		1x 100/1000Base-X Duplex SC
Transmission Mode	Store and Forward (full wirespeed)			
Bandwidth	5Gbps			
Packet Forwarding	2.98Mpps			
MAC Address	2K			
Buffer	2.5M			
PoE Output Power	30W per port			
Cable Type (Copper)	Cat5/5e/6			
Cable Type (Fiber)	Multi-mode 50/125μm, 62.5/125μm Single-mode 9/125μm	Single-mode 9/125μm		
Wave Length	Depends on the used SFP module	TX-1310nm/RX-1550nm	TX-1550nm/RX-1310nm	1310nm
Watt	≤32W			
Power	48~54V DC, 0.58A	52~56V DC, 0.58A		
Network Protocol	IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3x, IEEE 802.3at			
Transmission Distance	10BASE-T : Cat3,4,5 UTP (Max 100m) 100BASE-TX : Cat5 or later UTP (Max 100m) 1000BASE-TX : Cat6 or later UTP (Max 100m) Single mode single fiber (Max 20km) Single mode double fiber (Max 20km) Multiple mode double fiber (Max 2km)			
LED Indicator	PWR:Power LED PDX: Working status LED TX Link: Network Port LED FX Link: (Optical fiber LED) Port: (Tx100 LED=10/100M + Tx100LED =1000M)			
Certificate	CE mark, commercial; CE/LVD EN60950; FCC Part 15 Class B; RoHS; MA; CNAS			
Operating Temperature/Humidity	-15 ~ +65°C; 5%~90% RH non-condensing			
Storage Temperature/Humidity	-40 ~ +75°C; 5%~95% RH non-condensing			
Product size/Packing size (L*W*H)	90mm*60mm*20mm 230mm*125mm*55mm			
N.W/G.W (kg)	0.1kg/0.25kg			

Lightning Protection Level	3KV 8/20μs; IP30
Latency	1μs
MTBF	> 50,000Hrs
Installation	Desktop (optional wall hanger+machine hanger parts)
VLAN	Support for port-based VLANs
Multicast Protocol	Supports IGMP Snooping
Redundancy Technology	Supports ERPS ring network, supports static link aggregation.
Warranty	Whole device for 2 year

## Application



### Technical Drawing



## Order Information

Module	Description
S100U-1TP1S	Unmanaged 1x 10/100/1000Base-T RJ45 to 1x 100/1000Base-X SFP Slot Gigabit Ethernet PoE+ Media Converter
S100U-1TP1SC35-20	Unmanaged 1x 10/100/1000Base-T RJ45 to 1x 1000Base-X Single Mode SC TX-1310nm/RX-1550nm 20km Gigabit Ethernet PoE+ Media Converter
S100U-1TP1SC53-20	Unmanaged 1x 10/100/1000Base-T RJ45 to 1x 1000Base-X Single Mode SC TX-1550nm/RX-1310nm 20km Gigabit Ethernet PoE+ Media Converter
S100U-1TP1DSC-20	Unmanaged 1x 10/100/1000Base-T RJ45 to 1x 1000Base-X Single Mode Duplex SC 20km Gigabit Ethernet PoE+ Media Converter

## Further Information

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