OLC-S7004EP-2E

Features

4-Port 10/100Mbps IEEE 802.3af/at PoE Switch (End-Span PSE)

- Comply with IEEE802.3, IEEE802.3u, IEEE802.3af/at standards
- Support IEEE802.3x full-duplex flow control; support Auto MDI/MDIX
- Provide 15.4W or 30W power to powered devices
- Support PoE port AI watchdog function
- 60-watts PoE budget
- Built-in 53V /1.25A switching power supply
- Extra 2-Port 10/100Mbps UPLINK RJ-45
- PoE data & power transmission distance up to 100meters
- Support 250m extended transmission
- Backplane Bandwidth: 1.2Gbps
- MTBF: ≥100000hours
- Excellent anti-thunder, anti-static and anti-interference ability
- Surge Protection: 4KV
- Waterproof design IP65
- Easy and convenient to use, plug & play, no need to configure

Overview

The OLC-S7004EP-2E is designed for security and commercial applications, provides 4-port 10/100Mbps IEEE 802.3af/at Power over Ethernet with a total of 60 watts of PoE budget, which is an ideal solution to fulfill the demand of sufficient PoE power for network applications. It is able to drive 4 IEEE 802.3af/at compliant powered devices.

The OLC-S7004EP-2E is an ideal solution for outdoor securing IP surveillance infrastructure. It can reach IP65 waterproof level, and provides both 802.3af/at PoE functions along with 4 x 10/100Base-TX ports featuring 15.4-watt 802.3af/30-watt 802.3at PoE in RJ-45 interfaces and extra 2 x 10/100Mbps UPLINK RJ-45 ports to keep a cascade connection with another switch or NVR. For instance, one OLC-S7004EP-2E can be combined with one 4-Channel NVR and four PoE IP cameras as a kit for the administrators to centrally and efficiently manage the surveillance system in the local LAN and the remote site via Internet.

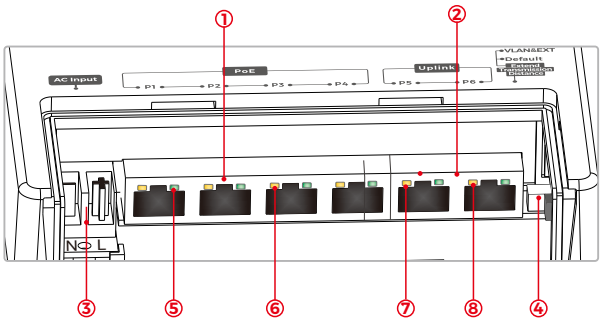
The OLC-S7004EP-2E RJ-45 interfaces support 10/100Mbps Auto-Negotiation at downlink port from 1 to 4 and uplink port from 1 to 2 for optimal speed detection through RJ-45 Category 6, 5e or 5 cables. It also supports standard Auto-MDI/MDI-X that can detect the type of connection to any Ethernet device without requiring special straight or crossover cables.

The OLC-S7004EP-2E supports port-based VLAN function, which effectively prevent the whole system from internet broadcast storm to make the data transfer much safer. When the VLAN mode is enabled, the data cannot be forwarded among DOWNLINK RJ-45 ports, but DOWNLINK ports and UPLINK RJ-45 port can communicate with each other. The bandwidth of DOWNLINK RJ-45 port is forced to 10Mbps mode to adapt to long distance transmission of max 250 meters. The bandwidth of UPLINK RJ-45 port is still 100Mbps.

With data and power over Ethernet formed one unit, the OLC-S7004EP-2E reduces cabling requirements and eliminates the need for dedicated electrical outlets on the wall, ceiling or any unreachable place. A wire that carries both data and power can lower the installation costs, simplify the installation effort and eliminate the need for electricians or extension cords. Providing 4 PoE interfaces, the OLC-S7004EP-2E is ideal for small businesses and work-groups which requiring deploying the PoE for the wireless access points, IP-based surveillance IP phones in any place easily, efficiently and cost-effectively.

Front & Rear Panel

Front panel



① Downlink Port: Transfer data from other IP devices to the switch

② Uplink Port: Transfer data from PoE ports to other devices (NVR/Switch/ADSL)

③ AC power input: Connected with AC power L/N line

④ Switch: VLAN & Extend mode switch

⑤ Link/Act Indicator: LED on: link up and PoE power is normal, off: link down, blinks: data transferring

⑥ PoE Indicator: Light on: powered to PD device, such as camera Light off: no power

⑦ Power Indicator: Light on: with power Light off: no power

⑧ VLAN on indicator: LED on: VLAN and Extend function is on, off: normal mode

Quick Setup Guide

Package Contents

1) OLC-S7004EP-2E : 1pc

2) Manual: 1pc

3) AC cable:1pc

1.Remove the wiring cover.

2.Insert the Ethernet cable through the cable entry.

3.Terminate the cable with an RJ45 connector following the T568A or T568B standard.

4.Connect the Ethernet port of the PoE camera to the downlink port of the PoE switch.

5. Connect Uplink port of PoE switches with RJ-45 port of NVR or computer or other devices over standard Cat 5e/6 cables.

6. Make sure above connections are properly finished, then turn on the power.

AI Watchdog Function Introduction

PoE webcam is 24 hours of continuous work, when the PoE camera crashes abnormally, or does not communicate, it needs to be manually checked on the spot and manually restarted.

But with our intelligent watchdog function, there is no need for personnel to go to the scene to view when the PoE switch can not receive the network data packets of the camera, it will start timing when the cumulative time exceeds three minutes, the camera will be automatically powered off and restarted, to achieve the purpose of remote intelligent monitoring.

VLAN Introduction

At present, applications of Ethernet switches are very wide. To satisfy the needs of various customers, it is urgent for network services to solve the problems such as broadcast domains, bandwidth and security, thus, a new technology called VLAN has emerged.

Each DOWNLINK RJ-45 port and UPLINK RJ-45 port form a separate workstation respectively. In the same VLAN workstation, regardless of which switch they are actually connected to, the communication between them is as if they were on a separate switch. Broadcasts in the same VLAN can only be heard by members of the VLAN, but not in other VLANs, which can control the generation of unwanted broadcast storms. At the same time, if there is no routing, different VLANs cannot communicate with each other, which increases the security of different departments in the enterprise network.

When the VLAN mode is enabled, the data cannot be forwarded among DOWNLINK RJ-45 ports, but DOWNLINK ports and UPLINK RJ-45 port can communicate with each other. The bandwidth of DOWNLINK RJ-45 port is forced to 10Mbps mode to adapt to long-distance transmission of max 250meters. The bandwidth of UPLINK RJ-45 port is 100Mbps, which keeps a cascade connection with another switch or NVR.

Note:

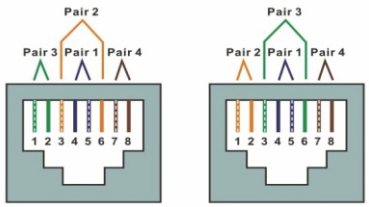
The maximum extended distance is up to 250 meters.
The actual extended distance will vary according to the quality of the cable, specific camera and on-site environment.

How to make a network cable

To create a network cable, you will first need the equipment listed below.

1. Cat5e, Cat6, or Cat7 cable
2. RJ-45 connectors
3. Crimping tool
4. Wire stripper or knife

The wire sequence of RJ45 connector must comply with the international standards of EIA/TIA 568A or EIA/TIA 568B.



	1	2	3	4	5	6	7	8
T568A	White Green	Green	White Orange	Blue	White Blue	Orange	White Brown	Brown
T568B	White Orange	Orange	White Green	Blue	White Blue	Green	White Brown	Brown

1) We recommend stripping at least half of an inch off of the cable to expose the inner wires.
2) Separate the wires within the cable after the network cable jacket has been removed so that they can be put into the RJ-45 connector.
3) The CAT5 twisted-pair cable consists of four twisted wires, each color-coded; 8 wires must be correctly lined as the standards of EIA/TIA 568A or EIA/TIA 568B.
4) Cut thread residue and leave 1.5cm wire exposed outside the insulating layer and ensure 8 wires are straightened and neat.
5) Place the cable into the RJ-45 connector and then use the crimping tool to attach the connector.
6) Repeat the above steps for the other end of the cable; the wire sequence of both ends of the cable is suggested to be identical.
7) Make sure to test the cables before installing them once both ends of the cable have been completed.

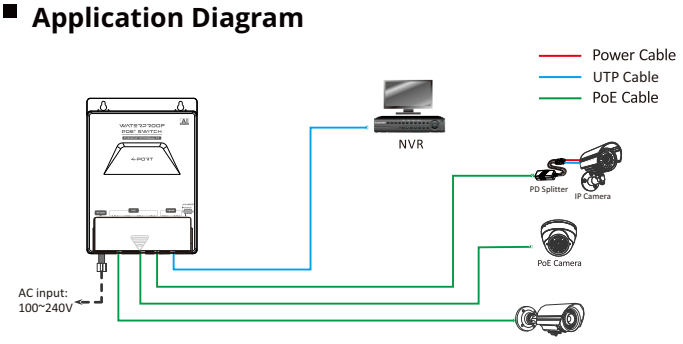
Note:

1. All RJ-45 Ports of this device support Auto MDI/MDIX, so the different wire sequence of both ends of the cable is allowed.
2. Up to two units can be cascaded.

Technical Specifications

Product Name	4-Port 10/100Mbps IEEE 802.3af/at PoE Switch (End-Span PSE)
Power Supply	
Power Supply Mode	AC Power Supply
Voltage Range	AC100~240V
Power Consumption	The device <5W PoE power supply ≤60W
Network Port Parameter	
Network Port	Ethernet Downlink RJ-45 Port: 4*10/100Mbps Uplink RJ-45 Port: 2*10/100Mbps
Transmission Distance	1~4 Ethernet Downlink RJ-45 Port: 100m Uplink RJ-45 Port: 100m
Transmission Medium	1~4 Ethernet Downlink RJ-45 Port: Cat5e/6 standard cable Uplink Port: Cat5e/6 standard cable
PoE Standards	IEEE802.3af/at
PoE Power Supply Mode	End-span method
PoE Power Supply Wattage	Each port ≤30W Whole device≤60W
Network Switch Specification	
Network Standards	IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX/FX, IEEE802.3az
Swap Mode	Store-and-forward
Data-Caching Mechanism	768K
MAC Address List	2K
Backplane Bandwidth	1.2Gbps
Forwarding Capacity	0.89Mpps
Indicator/Button	
Power Indicator	Red LED on: power on
PoE Indicator	LED on: powered to PD device,Off:no power
Fast Ethernet Uplink Port	LED on: link up,Off :link down,blink: data is transferring
PoE Network Port Indicator	LED on: link up,Off :link down,blink: data is transferring
VLAN Button	Turn on VLAN button: VLAN and extension function start Turn off VLAN button: VLAN and extension function stop
Protection Level	
Surge Protection	4KV (common mode),10/700us IEC61000-4-5
Electrostatic Protection	Contact Discharge: ±4KV Air Discharge: ±6KV Standard: IEC61000-4-2
Reliability	
Mean time between failures	＞100000h
Mechanical	
Dimensions (L*W*H)	200mm*140mm*42mm
Housing	ABS plastic
Body Color	Greyish white
Net Weight	417g
Environmental	
Operating Temperature	-20℃~55℃
Storage Temperature	-40℃~85℃
Relative Humidity	0~95% (non-condensing)

Application Diagram



After-sales Service

For breakdown caused by product quality, we guarantee product return within 15 days, exchange within 30 days and free warranty within 1 year.
The guarantee period counts from the date of purchase.