# 6006GX2-POE Datasheet

Aiming to create better and safer working environments and life experiences through the products we deliver.


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## *Building More Powerful Industrial POE Aggregation Network*

# 6006GX2-POE

### Industrial 4G+2G SFP Managed PoE Switch

6006GX2-POE is an industrial L2 smart managed PoE switch. Equipped with 4 Gigabit PoE af/at ports and 2 100M/1000M SFP fiber ports. The 4 Gigabit PoE/PoE+ ports can feed IP cam or wireless AP up to 30W/port. The 6006GX2-POE designs with the latest ERPS v2 ring which is fully compatible with 3rd party devices for flexible network upgrade. The USB port for configuration file can help mass installation and site support. Wide operating temperature design (-40~75ºC) can withstand critical industrial environment. All switches pass 4 hours 60ºC stress test before delivery to ensure utmost quality. The ANMS supports network management for up to 2000 nodes.


### High Throughput Ethernet Switching

- 4 Gigabit Ethernet port and 2 Giga SFP slots
- 8K MAC address table
- Stores and Forwards with non-blocking Switch Fabric

### ITU-T G.8032 v1/v2 ERPS Ring Redundancy

- An ITU standard Ring redundancy Protocol
- Provide sub-50ms protection and recovery switching for Ethernet traffic
- Interoperate with 3rd party industrial switch and still remain fast recovery time
- Interoperate with commercial switch instead of STP/RSTP
- Efficient network interconnection with ERPS Chain, multiple chain

### Smart Management

- Supports web pages, command lines, Telnet, SNMP v1/v2c/v3/trap
- LLDP topology control
- USB for easy field side configuration and firmware update
- ANMS - NMS system surveillance by individual nodes
- AIAS - remote configuration software for distributed management

### Extreme PoE Capability

- 4-port provide IEEE 802.3af/at compliance PoE, up to 30W per port
- Up to 120W PoE power budget
- Complete PoE management including per-port Power Budget Control, PoE Scheduling and PoE Status

### IEC62443-4-2 Level 3/4 Cyber Security

- 802.1Q VLAN, private VLAN, advanced port security
- L2-L7 IPv4/IPv6 Access Control List (ACL)
- DHCP Snooping, IP Source Guard, Dynamic ARP Inspection
- Multi-level user authentication
- HTTPS/SSH/SFTP, 256-bit AES encryption
- 802.1x MAB for non-802.1x compliant end device connection authentication
- RADIUS/TACACS+ Centralized Password Authentication

### Rugged Design for Security Surveillance

- Rugged design prevents mechanical deformation
- Wide operating temperature range: -40~75ºC, humidity: 95%
- Wide operating voltage range: 46~57VDC
- IEC61000-6-2/4 heavy industrial EMC

| PoE (Power Over Ethernet) Details | PoE (IEEE 802.3af) | PoE+ (IEEE 802.3at) |
|---|---|---|
| Max power | 15.40 W | 34.20 W |
| Available power for the device | 12.95 W | 25.50 W |
| Voltage output range | 44-58 VDC | 50-57 VDC |
| Max output current | 350 mA | 600 mA |
| Power management level | L3 | L4 |



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## Ordering Information

| Model Name | Description |
|---|---|
| **6006GX2-POE** | 6-Port Industrial Fully Managed POE Switch, 4 RJ45 10/100/1000BaseT(X), 2 SFP Slots 1000BaseSFP+, Support POE/POE+, Support ITU-TG.8032, DIN-Rail, Dual Power Input 46-57VDC, -40°C-75°C |
| **6006GX2-POE-2SX** | 6006GX2-POE，w/ 2 AVC-SFP-SX |
| **6006GX2-POE-2LX-10** | 6006GX2-POE，w/ 2 AVC-SFP-LX-10 |
| **6006GX2-POE-2LX-40** | 6006GX2-POE，w/ 2 AVC-SFP-LX-40 |
| **6006GX2-POE-PS** | 6006GX2-POE，w/ 1 APS-240-48 |
| **6006GX2-POE-2SX-PS** | 6006GX2-POE，w/ 1 APS-240-48 and 2 AVC-SFP-SX |
| **6006GX2-POE-2LX-10-PS** | 6006GX2-POE，w/ 1 APS-240-48 and 2 AVC-SFP-LX-10 |
| **6006GX2-POE-2LX-40-PS** | 6006GX2-POE，w/ 1 APS-240-48 and 2 AVC-SFP-LX-40 |

| Technology | |
|---|---|
| **Standard** | IEEE 802.3 10Base-T Ethernet |
| | IEEE 802.3u 100Base-TX Fast Ethernet |
| | IEEE 802.3ab 1000Base-T Gigabit Ethernet copper |
| | IEEE 802.3u 100Base-FX Fast Ethernet Fiber |
| | IEEE 802.3x Flow Control and back-pressure |
| | IEEE 802.3ab 1000Base-T Gigabit Ethernet copper |
| | IEEE 802.1AB Link Layer Discovery Protocol (LLDP) |
| | IEEE 802.1p Class of Service (CoS) |
| | IEEE 802.1Q VLAN |
| | ITU-T G.8032 Ethernet ring protection switching (ERPS) |
| | IEEE 802.1D-2004 Rapid Spanning Tree Protocol (RSTP) |
| | IEEE 1588 Precision Time Protocol v1/2 |
| **Interface** | |
| **Ethernet Port** | 4 x 100/1000MBase-T RJ45, Auto Negotiation<br>2 x 100/1000M SFP |
| **System LED** | 2 x Power: Green On<br>1x SYS: Ready: (Green On), Firmware Updating: (Green Blinking)<br>1 x DO: Red On<br>2 x Fiber: Link (Green On), Activity (Green Blinking)<br>1 x Ring: Off: Ring disabled, Green On: Ring normal (Not RPL Owner), Green Blinking: Ring normal (RPL Owner)<br>4 x PoE status: Green On |
| **Ethernet Port LED** | Link (Green On), Activity (Green Blinking) |
| **Reset** | System Reset(2~6 Seconds) / Default Settings Reset(over 7 Seconds) |
| **USB** | 1 x USB for Configuration/Firmware Update |
| **Power Input, Digital Output** | 6-Pin Removable Terminal Block Connector<br>4 Pin for Redundant Power<br>2 Pin for DO (Relay Alarm)<br>DO: Dry Relay Output with 0.5A/24V DC |
| **Power Requirement** | |
| **Input Voltage** | 48VDC(46~57VDC, 50~57VDC suggested for IEEE802.3at) |
| **Reverse Polarity Protect** | Yes |
| **Input Current** | 2.5A@54VDC |
| **Power Consumption** | Max 8.5W@54VDC full traffic without PD Loading, suggest to reserve 15% tolerance |
| **Software** | |
| **Management Interface** | CGI WebGUI, Command Line Interface (CLI), Telnet, SNMP |
| **Time Management** | NTP, *IEEE 1588 Precision Time Protocol v1/2 |
| **Network Management** | IPv4, SNMP v1/v2c/v3/Trap, MIBs, LLDP, DHCP server/client, TFTP, System Log, SMTP |
| **Traffic Management** | Flow Control, VLAN, Class of Service, QOS, Rate Control, Port Mirror |
| **Security** | Management IP, SSH, SSL |
| **Redundancy** | Rapid Spanning Tree Protocol (RSTP)<br>ITU-T G.8032 v1/v2 Ethernet Ring Protection Switching (ERPS) |

| | | |
|---|---|---|
| **PoE** | | |
| **Power forwarding mode** | Alternative A | |
| **PoE Power Budget** | System:Max.120W@75°C<br>Per Port: Max. 30W | |
| **PoE Standard** | IEEE 802.3af/at | |
| **Management** | System/Port Power Budget Control, PD Alive Check, PoE Scheduling, PoE Status | |
| **Mechanical** | | |
| **Installation** | DIN Rail | |
| **Enclosure Material** | Steel Metal with Aluminum | |
| **Dimension** | 78.5 mm x 149 mm x 125 mm(W x H x D) / without DIN Rail Clip | |
| **Ingress Protection** | IP31 | |
| **Weight** | Around 800g | |
| **Environmental** | | |
| **Operating Temperature & Humidity** | -40°C~75°C , 5%~95% Non- Condensing | |
| **Storage Temperature** | -40°C~85°C | |
| **MTBF** | >2,000,000 hours | |
| **Warranty** | 5 years | |
| **Standard** | | |
| **Safety** | EN60950-1 Compliance | |
| **EMC** | EN61000-6-2/EN61000-6-4 | |
| **EMI** | CISPR 22, FCC part 15B Class A | |
| **EMS** | EN61000-4-2 ESD, EN61000-4-3 RS, EN61000-4-4 EFT, EN61000-4-5, EN61000-4-6 CS, EN61000-4-8 Magnetic Field | |
| **100Base FX** | | |
| **Multi Mode** | AVC-SFP-FX-SX （550m） | Wavelength: 850 nm |
| | AVC-SFP-FX-S （2km） | Wavelength: 1310 nm |
| **Single Mode** | AVC-SFP-FX-10 (10km) | Wavelength: 1310 nm |
| **1000Base FX** | | |
| **Multi Mode** | AVC-SFP-SX（550m) | Wavelength: 850 nm |
| | AVC-SFP-LX-S （2km） | Wavelength: 1310 nm |
| **Single Mode** | AVC-SFP-LX-10 (10km) | Wavelength: 1310 nm |

## function interface

**System LED**
- 2 x Power
- 1 x System Status
- 1 x DO
- 2 x Fiber Port
- 1 x Ring
- 4 x PoE

**Easy System Management**
- USB for Configuration/ Firmware update

**DIN Clip**

**Gigabit Ethernet**
- 4 x 100/1000M RJ45
- IEEE 802.3af/at

**Fiber Ethernet**
- 2 x 100M/1000M SFP

**Integrated Power Connector**
- 1 x 6-pin terminal block
  4 pin for redundant power input
  2 pin DO


## Installation dimensions