![BLACK COPPER — Upgrades network]

# BC-IRPOEL2-8G-F2

## 10 Ports Gigabit Managed Industrial PoE Switch

**Layer 2 Managed Industrial PoE Switch**

8X1000Mbps RJ45 +2X1000Mbps SFP+ Console Port: 1XRJ45

## Overview

BC-IRPOEL2-8G-F2 is a 10-port gigabit managed industrial Ethernet switch with 8 gigabit PoE RJ45 ports and 2 gigabit optical SFP ports. Each POE port can provide up to 30W of power and can be used for the Powered Devices (PDs) which is compatible with IEEE802.3af/at. It is especially suitable for application scenarios which it is difficult to provide AC power and want to save the wiring costs. EMC Class 4 protection performance; corrugated high-strength aluminum profile shell, IP40 grade, low power consumption design, anti- vibration DIN-rail installation, operating temperature of -40℃ -75℃, can work in harsh environments. BC-IR-POEL2-8G-F2 can also support various network management functions: RUN-Ring (self-healing time <10ms), RSTP, VLAN, QoS, SNMPv1/v2c/v3, IEEE802.1X, SSH/SSL, port mirror, port aggregation,etc. The BC-IRPOEL2-8G-F2 is a reliable solution for intelligent transportation, video surveillance and other harsh industrial environments by its rich redundancy, switching and security management features.
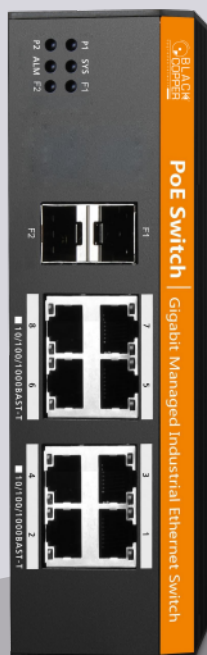
# Features

## Port 6KV lightning protection

- All ports support 6KV lightning protection, PSE short circuit protection, PoE overload, power supply over temperature protection, over voltage protection, surge current protection and other protection features.

## AI DIP Switch

- AI Loop Protect: Using the fast loop network RUN-Ring technology, when the main link of network transmission fails, the system automatically switches to the backup link, and the fault recovery time can reach as fast as 10ms.
- AI PoE: Automatically detect the power receiving port, find a dead device, and restart the device after power off.
- AI VLAN: Isolate ports 1-4 from each other, which can effectively suppress network storms and improve network performance.
- AI Extend: 1-4 ports support long-distance power supply of 250 meters (recommended to use a super network cable above 5).

## Powerful processing capabilities

- Support 802.1Q VLAN, MAC VLAN, IP VLAN, users can flexibly divide VLAN as needed.
- Support QoS, 8 port queues, support port priority, 802.1P priority, DSCP priority, support SP, WRR, SP+WRR, WFQ priority scheduling algorithm.
- Support ACL, support L2 (Layer 2) ~ L4 (Layer 4) packet filtering function, provide flexible and secure access control policy.
- Support IGMP v1/v2/v3 Snooping, MLD v1/v2 Snooping, to meet the requirements of multi-terminal HD video surveillance or video conference.
- Supports the fast leave mechanism and querier of Layer 2 multicast, supports Layer 2 IPv4 static multicast and Layer 2 IPv6 static multicast.

## Perfect security mechanism

- Complete security authentication mechanism: It supports IEEE 802.1x, Radius, Tacacs+, etc., and can provide users with a complete security authentication mechanism.
- The perfect loop detection mechanism can ensure the stable operation of the network for a long time.
- Provide port isolation in the same VLAN, and security features such as DHCP-Snooping, IP+MAC+port binding, etc., to further ensure user data security.
- Support ARP protection, IP source protection, DoS protection.
- Support to restrict user access based on port number, IP address, and MAC address.

## Diverse reliability protection

- Support STP (IEEE 802.1d), RSTP (IEEE 802.1w) and MSTP (IEEE 802.1s) protocols to eliminate Layer 2 loops and implement link backup.
- Supports loop protection, root bridge protection, TC protection, BPDU protection, and BPDU filtering.
- Support relay alarm output functions such as power failure, port disconnection, and PoE power supply abnormality.
- Industrial level 4 protection and anti-jamming capability

## Perfect POE power supply function

- Support 802.3af/at standard, built-in high-power power supply, meet the needs of POE scenarios such as security monitoring, wireless coverage, and IP telephony.
- Support PoE power limit and set PoE port priority. When the power exceeds the limit, the power supply of the high-priority port will be given priority.
- Support setting PoE power supply time period, users can control the time period of PoE power supply according to their own needs.
- Support PoE chip status check, users can view the PoE chip temperature, output power and other parameters in real time through the web page.

# Features

## Flexible and convenient management and maintenance

- Supports various management methods such as Console, Telnet, and SSH.
- Support WEB network management (HTTP, HTTPS, SSL V3), which is simpler and more efficient, and is convenient for users to install and debug.
- Supports file upload and download management in TFTP mode.
- Support SNMP V1/V2/V3 to facilitate device management through the network management platform.
- Support one-stop management and maintenance of Fengrunda Apollo cloud platform, which can realize all-round remote operation and maintenance such as automatic device discovery, network topology management, and remote configuration management of devices.

# Specifications

| Hardware | |
|---|---|
| Network Interface | ● 10/100/1000Mbps RJ45 ports x8<br>● 10/100/1000Mbps SFP ports x2<br>● Console ports x1 |
| Network Protocol | ● IEEE802.3、 IEEE802.3i、 IEEE802.3u、 IEEE802.3ab、 IEEE802.3z、 IEEE802.3ad、 IEEE802.3x、 IEEE802.3af/at、 IEEE802.1p、 IEEE802.1q、 IEEE802.1w、 IEEE802.1d、 IEEE802.1s |
| Performance | ● Bandwidth:20Gbps (Non-Block)<br>● Throughput： 14.9Mpps<br>● MAC table： 8K<br>● Port cache： 4.1Mb<br>● Forwarding model: Store and forward |
| LED Indicator | ● Power Indicator： P1,P2<br>● System Indicator： SYS<br>● Alarm Indicator： ALM<br>● SFP Port Indicator： Link&Act F1~F2<br>● RJ45 Port Indicator： POE&Link&Act 1~8 |
| POE Pin | ● 1/2 （+） ， 3/6/(-); |
| Power Supply | ● Input voltage: 48-56V DC<br>● Input port: Pluggable 5 pin terminals block, 5.08mm pitch (support dual DC power source backup, built-in overcurrent protection, support anti-reverse connection)<br>● No-load power: 6W@52V DC<br>● Full load power: 246W@52V DC (POE full load output)<br>● Max. power for single port: 30W |
| Physical Parameter | ● Casing： Corrugated high-strength metal housing, IP40<br>● Installation： DIN-Rail<br>● Dimension （LxWxH） ： 163mm×110mm×46.5mm |
| Environmental Condition | ● Operating Temperature： -40〜75℃<br>● Storage Temperature： -40〜85℃<br>● Operating Humidity： 5%〜95% RH (non-condensing)<br>● Storage Humidity： 0%〜95% RH (non-condensing) |
| Certification | ● CE/ROHS/FCC |