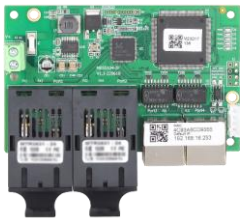


## CES5104-2F

### 4-Port Layer 2 Managed Embedded Industrial Ethernet Switch



- 2x100M fiber ports, 2x100M copper ports
- Fast ring redundancy with less than 20ms (MW-Ringv1/v2, STP/RSTP) improves system communication reliability
- Support DC 6-32V power input, comply with intrinsically safe circuit design standards
- Allowing the device to operate reliably in harsh industrial environments ranging from -40°C to +85 °C

## Product Description

CES5104-2F is a managed embedded industrial ethernet switch, designed for industrial applications. It supports 2x100M fiber ports and 2x100M copper ports. This switch utilizes a store-and-forward mechanism, providing robust bandwidth processing capabilities while automatically detecting and reducing transmission errors, ensuring stable, reliable, and efficient data transfer. The product adopts industrial-grade components, high-standard system design, and production control. The hardware design allows it to dissipate heat effectively and operate reliably in a wide temperature range from -40°C to +70°C. It is suitable for challenging work environments, ensuring stable communication performance.

CES5104-2F series support WEB network management functions and multiple network protocols, such as MW-Ringv1/v2, STP/RSTP, VLAN, QoS, storm suppression, port mirroring, static multicast MAC address binding, network diagnosis, alarm and system online upgrade. It can improve the performance, reliability and security of the network and meet the needs of various complex networks. The products have passed strict functional, high and low temperature, safety and EMC tests to meet the application requirements of complex networks and harsh industrial environments. They can be widely used in integrated energy, smart cities, rail transit, intelligent transportation, smart factories, industrial automation, etc.

## Product Features

- Support rate limiting for broadcast, unknown multicast, and unknown unicast packets, with detection and prevention of broadcast and multicast packet storms to avoid network storms
- Support QoS (Quality of Service) to prioritize voice, video, and critical data transmission within network devices, addressing network congestion
- Support 802.1Q VLAN, providing Access, Trunk, and Hybrid interfaces for easy division of multiple broadcast domains, enhancing network security
- Support static multicast MAC address binding to reduce the broadcast of multicast data in the network and save network resources.
- Support alarm function, including alarms such as port disconnection and ring network status
- Support port mirroring to collect data from port ingress and egress for network detection and fault management
- Support RSTP (Rapid Spanning Tree Protocol) compatible with STP (Spanning Tree Protocol) to eliminate network loops and enhance network reliability
- Support port statistics, counts different types of data frames sent and received, and monitors port traffic.
- Support Ping to detect network connectivity
- Support guests and administrators, and management of users with different permissions
- Support device online restart, factory settings restoration and system upgrade

## Technical Specifications

Software	
Switching	<p>Support port configuration, port rate limiting, storm suppression, and port statistics</p> <p>Support 802. 1Q VLAN, port-based VLAN</p> <p>Support MAC address aging and static MAC address binding</p>
Redundancy	<p>Support MW-Ringv1/v2 proprietary ring network technology</p> <p>Support RSTP (Rapid Spanning Tree Protocol) and is compatible with STP (Spanning Tree Protocol)</p>
Multicast	<p>Support static multicast MAC address binding</p>
Maintenance and Management	<p>Support static IP</p> <p>Support QoS (Quality of Service),802. 1P/ DSCP/ port priority mapping, absolute and relative priority control</p> <p>Support port mirroring and ping, alarm</p> <p>Support user management with different permissions, online restart, factory reset, upgrade, and configuration file upload/download</p> <p>Support MixView, and MaxView management</p>
Switching	
Switching	Store-and-forward
Backplane Bandwidth	1.2G
Cache Size	768kbit
MAC Address	2K
Interface	
Fiber Port	2x100Base-FX ports, support single-mode/multi-mode, SC/FC/ST connector, wavelength and transmission distance optional
Copper Port	2x10/ 100Base-T(X) auto-sensing RJ45 copper ports, support auto MDI/ MDI-X connection, half and full duplex
Switch Input	2 switching inputs, using 2.54mm pitch 4PIN sockets, which are wet contacts and can detect DC5~ 12V external power input status

Indicators	Power indicator, interface indicator, support external indicator
<b>Power</b>	
Power Input	DC6-32V
Full Load Power Consumption	<2.3W@DC12V
Connection Method	5.08mm pitch 2-pin terminal block
Power Protection	Overcurrent protection, overvoltage protection, reverse connection protection, slow start, reverse
<b>Mechanical</b>	
Dimensions	95*60*13.6 mm
Installations	Embedded installation
Weight	61g
<b>Working Environment</b>	
Operating Temperature	-40°C~+85°C
Storage Temperature	-40°C~+85°C
Relative Humidity	5%~95% (no condensation)
<b>Industry Standard</b>	
EMC	IEC 61000-4-5 (Surge): Level 2 (Power supply: common mode $\pm 1\text{kV}$ , differential mode $\pm 0.5\text{kV}$ ; Network port: common mode $\pm 6\text{kV}$ , differential mode $\pm 2\text{kV}$ ) IEC 61000-4-4 (EFT): Level 3 (power supply, network port: $\pm 2\text{kV}$ )



## Ordering Information

Standard Model	100M Fiber Port	100M Copper Port	Input Voltage
CES5104-2F(M/S)	2	2	DC6~32V



## Contact Us

### COME-STAR COMMUNICATION(WUHAN) CO., LTD.

Address: Puneng Industrial Park, Fenghuang Garden 1st Road, East Lake High-Tech Development Zone, Wuhan, China.

Tel: +86-027-59257958

Mail: [info@come-star.com](mailto:info@come-star.com)

Official site: [www.come-star.com](http://www.come-star.com)

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