



Quick Installation Guide

Full-Gigabit Ethernet Switch 7028GX12

www.avcomm.us

• Overview

The 7028GX12 series is a cost-effective, fully Gigabit, managed industrial Ethernet switch that also supports static layer-3 routing. To meet diverse requirements in industrial applications, this series of switches can support up to 28 Gigabit interfaces and a maximum of 12 Gigabit fiber interfaces, enhancing network scalability. The series offers flexibility in network expansion. These switches come equipped with a variety of layer-2 software features, including port mirroring, VLAN, IGMP Snooping, QoS, STP/RSTP/MSTP, and ACL (Access Control List). Additionally, practical management options such as Console, Telnet, Web, SNMP, and relay alarm outputs are supported. The switches also incorporate layer-3 switching technologies like static routing, RIP, OSPF, and VRRP. This makes them well-suited for industrial applications such as factory automation, intelligent transportation, video surveillance, and more. Moreover, the series provides reliable solutions for building secure and robust LANs in government settings.

Model Name	Description		Fiber Interface Types
	1000Base-X	10/100/1000Base-T	1000Base-X
7028GX12-AC2-8TX-8SFP	8-port	8-port	SFP Slot
7028GX12-AC2-16TX-4SFP	4-port	16-port	SFP Slot
7028GX12-AC2-16TX-8SFP	8-port	16-port	SFP Slot
7028GX12-AC2-16TX-12SFP	12-port	16-port	SFP Slot
7028GX12-AC2-24TX-4SFP	4-port	24-port	SFP Slot
7028GX12-AC2-8TX-8SC	8-port	8-port	SC Fiber Optic Interface
7028GX12-AC2-16TX-2SC	2-port	16-port	SC Fiber Optic Interface
7028GX12-AC2-16TX-4SC	4-port	16-port	SC Fiber Optic Interface
7028GX12-AC2-16TX-8SC	8-port	16-port	SC Fiber Optic Interface
7028GX12-AC2-16TX-12SC	12-port	16-port	SC Fiber Optic Interface
7028GX12-AC2-24TX-2SC	2-port	24-port	SC Fiber Optic Interface
7028GX12-AC2-24TX-4SC	4-port	24-port	SC Fiber Optic Interface
7028GX12-AC2-16TX	-	16-port	-
7028GX12-AC2-24TX	-	24-port	-

• Package Checklist

- 1 x Product Unit
- 1 x Quick Installation Guide
- 1 x Console Cable
- 1 x Single power cord/2 x Dual power cord

• Installation

Installation Guidelines

To prevent equipment damage and personal injury caused by improper use, please adhere to the following guidelines:

To avoid equipment falling and causing damage, place the device in a stable environment.

When supplying power to the device, ensure to verify the voltage range and the polarity of the power source to avoid incorrect operations that may damage the equipment.

To minimize the risk of electric shock, ensure that the equipment is properly grounded in the working environment.

Please do not disassemble the device casing at any time.

When placing the switch, avoid areas with excessive dust and strong electromagnetic interference.

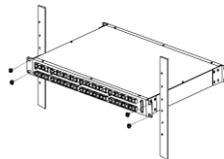
Rack-Mount Installation

Install the product on a 1U rack following these steps:

Step 1: Check the grounding and stability of the 1U rack. Use screws to secure the mounting ears on both sides of the switch panel.

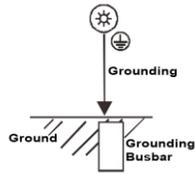
Step 2: Place the switch on a tray in the rack. Adjust the switch to the appropriate position, ensuring that the switch aligns with the 1U rack.

Step 3: Use screws to secure the mounting ears onto the fixed slots at both ends of the 1U rack. Ensure that the brackets on each slot of the rack and the mounting ears of the switch securely fasten the switch to the 1U rack.



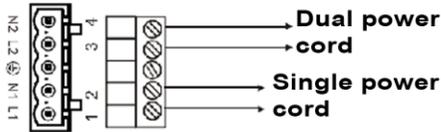
Grounding:

Attach the grounding wire to the grounding screw on the switch and ensure a reliable connection to a good grounding system.



Power Input

Insert the power cord into the designated positions on the 5-core terminal block. Connect the terminal block to the power input socket (the first power supply corresponds to the inputs L1 and N1, and the second power supply corresponds to the inputs L2 and N2). The specified power supply voltage is 110/220V AC(88~264VAC)/50-60Hz or 110/220VDC(88~264VDC).



Relay Alarm

The relay alarm terminal consists of a 3-core terminal block, providing fault alarm outputs. The NC-COM configuration is normally closed, indicating a "short circuit" when the equipment experiences a malfunction. In normal conditions, NC-COM behaves as "open circuit." The NO-COM configuration is normally open, indicating an "open circuit" in the event of equipment failure. Under normal circumstances, NO-COM behaves as a "short circuit."



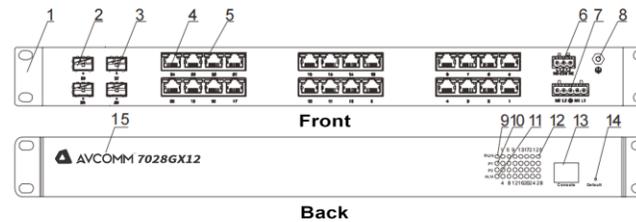
Network Interface Connection

Connect the fiber optic cable or Ethernet cable to the respective network interfaces. For fiber optics, pay attention to the transmit and receive sequence; the corresponding indicator lights should be on or blinking accordingly.



Attention: When using a fiber optic patch cord to connect two optical ports, A and B, ensure that the TX of port A is connected to the RX of port B, and the RX of port A is connected to the TX of port B. This ensures the correct alignment of the fiber optic patch cord.

Appearance



- 1、 Mounting Ears
- 2、 Gigabit Fiber Interface
- 3、 Gigabit Fiber Interface Indicator Lights
- 4、 10/100/1000Base-T Ethernet Interface
- 5、 10/100/1000Base-T Ethernet Interface Indicator Lights
- 6、 Relay Alarm Output Terminals
- 7、 Power Input Terminals
- 8、 Grounding Screw
- 9、 System Operation Indicator Light
- 10、 Power Indicator Light
- 11、 Relay Alarm Indicator Light
- 12、 Network Interface Indicator Light
- 13、 Console
- 14、 Restore to Factory Settings
- 15、 Company Name and Logo

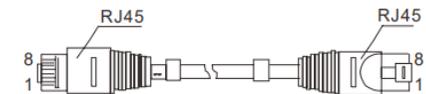
LED Indication

LED	Status	Description
P1~P2	Green On	Power Supply Normal
	Green Off	Power Supply Failure or No Power
Network Interface Indicator Light	Green On	Link Connection Normal
	Green Blinking	Link Connection Normal
RJ45 LED	Green Off	Link Not Connected or Connection Failure
	Green On	Link Connected at 10/100M Speed
	Green Off	Link Connected at 10/100M Speed or Connection Failure
	Amber On	Link Connection Normal
	Amber Blinking	Link Connection Normal
ALM	Red On	Alarm Signal Output Present
	Red Off	No Alarm Signal Output
RUN	Green On/Off	Device Operating Abnormally
	Green Blinking	Device Operating Normally

Interface Definition

10/100/1000Base-T Ethernet Interface

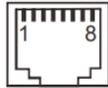
This series of switches provides 10/100/1000Base-T ports, all of which support automatic MDI/MDI-X cable recognition. When in use, please employ Category 5e shielded twisted pair cables and connect them to other Ethernet terminal devices. Refer to the diagram below for the pin numbering sequence of the Ethernet ports.



Ethernet cable

The RJ45 ports support automatic MDI/MDI-X operation, allowing the use of straight-through cables to connect to PCs or servers, as well as to connect to other switches or hubs. In a straight-through cable (MDI), pins 1, 2, 3, 4, 5, 6, 7, and 8 correspond to their respective connections. For the MDI-X ports on switches or hubs, a crossover cable is used with the following pin assignments: 1→3, 2→6, 3→1, 6→2, 4→7, 5→8, 7→4, and 8→5. The pin definitions for 10/100/1000Base-T are illustrated in the diagram below.

Pin number	MDI signal	MDI-X signal
1	BI_DA+/TX+	BI_DB+/RX+
2	BI_DA-/TX-	BI_DB-/RX-
3	BI_DB+/RX+	BI_DA+/TX+
4	BI_DC+/-	BI_DD+/-
5	BI_DC-/-	BI_DD-/-
6	BI_DB-/RX-	BI_DA-/TX-
7	BI_DD+/-	BI_DC+/-
8	BI_DD-/-	BI_DC-/-



Remarks: "TX ±" represents sending data ±, "RX ±" represents receiving data ±, and "-" represents unused.

• Management system login

This series of products offers one serial port-based management system debugging interface. The interface utilizes an RJ45 connector located on the front panel. It can be connected to a PC for device program updates and configuration using the provided connecting cable.



- 1、 Console Interface: 115200 8-N-1
PIN3-TXD PIN4/5-GND PIN6-RXD
- 2、 Web: IP Address: 192.168.1.254
Username: admin, Password: admin

• Support

At AVCOMM, you can use the online service forms to **request the support**. The submitted forms are stored in server for AVCOMM team member to assign tasks and monitor the status of your service. Please feel free to write to info@avcomm.us if you encounter any problems.

• Warranty

5-year Global warranties are available for AVCOMM products assuring our customers that the products shall remain free from defects in workmanship or materials and conform in all material respects to AVCOMM specifications, or Purchaser's supplied and accepted specifications. The warranty is limited to the repair and/or replacement, at AVCOMM' sole discretion, of the defective product during its warranty period. The customer must obtain a **Return Merchandise Authorization (RMA)** approval code prior to returning the defective Product to AVCOMM for service. The customer agrees to prepay shipping charges, to use the original shipping container or equivalent, and to ensure the Product or assume the risk of loss or damage in transit. Repaired or replaced products are warranted for ninety (90) days from the date of repair or replacement, or for the remainder of the original product's warranty period, whichever is longer.

• Disclaimer

AVCOMM reserves the right to make changes to this QIG or to the product hardware at any time without notice. It is the user's responsibility to determine whether there have been any such updates or amendments herein.

Defects, malfunctions, or failures of the warranted Product(s) caused by damage resulting from unforeseeable incidents (such as lightings, floods, fire, etc.), environmental and atmospheric disturbances, other external forces such as power line disturbances and surge, host computer malfunction and virus, incorrect power input, or incorrect cabling, incorrect grounding and damages caused by misuse, abuse and unauthorized alteration or repair are not warranted.