



AVCOMM®

# 8028GX28

## Datasheet

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



AVCOMM Technologies, Inc

[www.avcomm.us](http://www.avcomm.us)

Email: [info@avcomm.us](mailto:info@avcomm.us)

Phone: (713) 933-4534

Address: 333 West Loop North, Suite 460  
Houston, TX 77024  
United States

## 28-port L2 Managed 10G Ethernet Switch

AVCOMM 8028GX28 are rack-mount type Ethernet switches, equipped with 4 10G ports & 24 Gigabit Ethernet ports. With flexible combination of copper and fiber port options, 8028GX28 delivers high quality, wire-speed L2 routing performance, advanced features such as powerful VLAN operation, Police-based traffic manage & security, and intelligent management design, to fulfill different application scenario. It provides the scalability, flexibility & reliability for large network structure, and is also an ideal solution of L2 routing off-load for core network.



10G Switch

Advanced QoS

L2 switch

IEC 61850  
IEEE 1613

Multiple Fiber ports

- Up to 24 100/1000BaseSFP slots plus 4 10G SFP+ slots.
- Gigabit ports options: 24 10/1000Base SFP slots, or 8 Gigabit Copper ports plus 16 100/1000BaseSFP slots, or 16 Gigabit Copper ports plus 8 100/1000BaseSFP slots, or 24 10/100/1000BaseT copper ports.
- 9K Jumbo frames
- L2 wire-speed switching
- Network redundant LACP, Spanning tree STP, RSTP & MSTP, and quick Ring fail -over protection (< 20 ms)
- Support Single & multiple rings
- Advanced VLAN operations: IEEE 802.1ad/QinQ VLAN, VLAN tag add/remove/replace
- Private VLAN, port-based /tag-based/protocol-based VLAN
- Multicasting support IGMP v1/v2/v3, proxy & snooping
- Security: IEEE 802.1x authentication, RADIUS & TACACS+ AAA (pending)
- Policy-based traffic control engine for actions of Deny, Allow, Queue mapping, rate limit, mirror, or CoS remark on any combination of specific Layer -2 /Layer- 3 / Layer-4 patterns
- QoS (SPQ,WRR, SPQ+ WRR): Hierarchical per-port, per queue shaping & scheduling with bandwidth management
- IEC 61850-3 / IEEE 1613 compliant

Technical Specifications	
<b>Ethernet</b>	
<b>Ethernet Interface</b>	100/1000BaseSFP slots or 10/100/1000BaseT(X) for 24 gigabit ports 10G SFP+ slots (1G SFP backward compatible)
<b>Operating mode</b>	Store and forward, L2 wire-speed/non-blocking switching engine
<b>MAC addresses</b>	8K
<b>Jumbo frames</b>	9K Bytes
<b>Copper RJ45 Ports</b>	
<b>Speed</b>	10/100/1000 Mbps
<b>MDI/MDIX Auto-crossover</b>	Support straight or cross wired cables
<b>Auto-negotiating</b>	10/100/1000 Mbps speed auto-negotiation; Full and half duplex
<b>SFP (pluggable) Ports</b>	
<b>Port types supported</b>	Gigabit fiber multimode, fiber single mode, fiber long-haul single mode 100/1000BaseF (SX/LX/LH)
<b>Fiber port connector</b>	LC typically for fiber (depends on module)
<b>10G SFP+</b>	1G/2.5G/10G SFP+ slots
<b>Network Redundancy</b>	
<b>Ring Protection</b>	Link loss recovery < 20ms Single & Multiple rings supported
<b>Spanning Tree Protocol</b>	IEEE 802.1D STP, IEEE 802.1w RSTP, IEEE 802.1s MSTP BPDU forwarding and filtering
<b>IEEE 802.3ad Port Trunk with LACP</b>	Static trunk (Link Aggregation Control Protocol)
<b>Bridge, Virtual Local Area Networks (VLANs) &amp; Protocols</b>	
<b>Flow control</b>	IEEE 802.3x (Full Duplex) and Back-Pressure(Half Duplex)
<b>Max VLANs</b>	2048
<b>VLAN Types</b>	Port-based VLANs, IEEE 802.1Q tag-based VLANs, IEEE 802.1v protocol-based VLANs, IEEE 802.1ad Double Tagging (Q in Q) Private VLAN
<b>VLAN operations</b>	Attach/Remove/Replacement VLAN tag
<b>MVR (Multicast VLAN Registration)</b>	Yes
<b>Multicast protocols</b>	IGMP v2 and v3 with up to 512 multicast groups IGMP snooping and proxy Immediate leave and leave proxy
<b>Traffic management engine &amp; QoS</b>	
<b>Policy-based access control engine</b>	Policy/Profile-based Access Control List (ACL) Multi-layer ACL support; Flexible combination of well-known Layer 2/3/4 fields:

	-VLAN ID, Source/Destination MAC address, EtherType -Source/Destination IP address, IP protocol number -UDP or TCP, Source/Destination port number of TCP/UDP -DSCP or ToS value
	Actions per rule: Deny, Allow, Queue mapping, rate limit, mirror, CoS remark
	Max number of profiles per switch: 20
	Max number of rules per profile: 32
<b>Number of queues per port</b>	8
<b>Scheduling schemes</b>	SPQ, WRR, SPQ + WRR
<b>Traffic Shaper</b>	Hierarchical per port and per queue shaping & scheduling with bandwidth management
<b>Traffic Policer</b>	Ingress rate limit in 1K bps granularity
	TrTCM (Two Rate Three Color Marker) policer engine
<b>Security</b>	
<b>Port security</b>	IP and MAC-based Access control; Policy-based Access control
	IEEE 802.1X authentication Network Access Control RADIUS Client for IEEE 802.1X.
<b>Storm Control</b>	Multicast/Broadcast/Flooding Storm Control per port/per VLAN basis
<b>Management</b>	
<b>User Management interfaces</b>	Cisco-like CLI (command line interface); Telnet (5 sessions)
	WEB-based Management SNMP v1, v2c, v3
	Telnet (5 sessions)
<b>Management Security</b>	HTTPs, SSH
	Radius Client for Management (*pending)
	TACACS+ Client for Management (*pending)
<b>Upgrade &amp; Restore</b>	FTP for Configuration Import/Export, FTP for Firmware Upgrade
<b>Diagnostic</b>	Syslog
	Policy-based stream mirroring
	Ethernet Copper connection diagnostic tool
<b>SNTP</b>	Yes
<b>Power</b>	
<b>Power input options</b>	DC input: DC Redundant Input Terminals & Reverse power protection Single/dual AC inputs DC & AC dual inputs
<b>Input voltage range</b>	20-58 VDC or 100/240 VAC, 50Hz ~ 60Hz
<b>Indicators</b>	
<b>Status indication</b>	Indication of power input, alarm and Ring statuses
<b>Ethernet port indication</b>	Link & Speed
<b>Environmental and Compliances</b>	
<b>Operating temperature range</b>	-40 to +75°C
<b>Storage temperature range</b>	-40 to +85 °C

AVCOMM Technologies, Inc. All rights reserved. Trademarks and trade names that may be used in this document are owned by their respective companies. Specifications subject to change without notice. Please ask our sales for the most up-to-date product information. Avcomm Technologies Inc. Add: 333 West Loop North Ste. 460, Houston, TX 77024

<b>Humidity (non-condensing)</b>	5 to 95% RH
<b>EMI</b>	Radiated Emission: CISPR 22, EN55022 Class A
	Conducted Emission: EN55022 Class A
<b>EMS</b>	ESD: IEC61000-4-2
	Radiated RF (RS): IEC61000-4-3
	EFT: IEC61000-4-4
	Surge: IEC61000-4-5
	Conducted RF (CS): IEC61000-4-6
<b>RoHS and WEEE</b>	RoHS (Pb free) and WEEE compliant
<b>MTBF</b>	> 25 years
<b>Mechanical</b>	
<b>Ingress protection</b>	IP40
<b>Dimensions</b>	439.6 (W) x 44 (H) x 318.3 (D) mm (maximum)
<b>Weight</b>	4.5KG
<b>Installation option</b>	19" rack mounting



## Function interface 8028GX8-AC2

System LED:  
Power, System  
& Ring status

28x 100/1000M Copper / 100/1000M  
SFP Fiber Combo with LED for Link  
Status Configured as

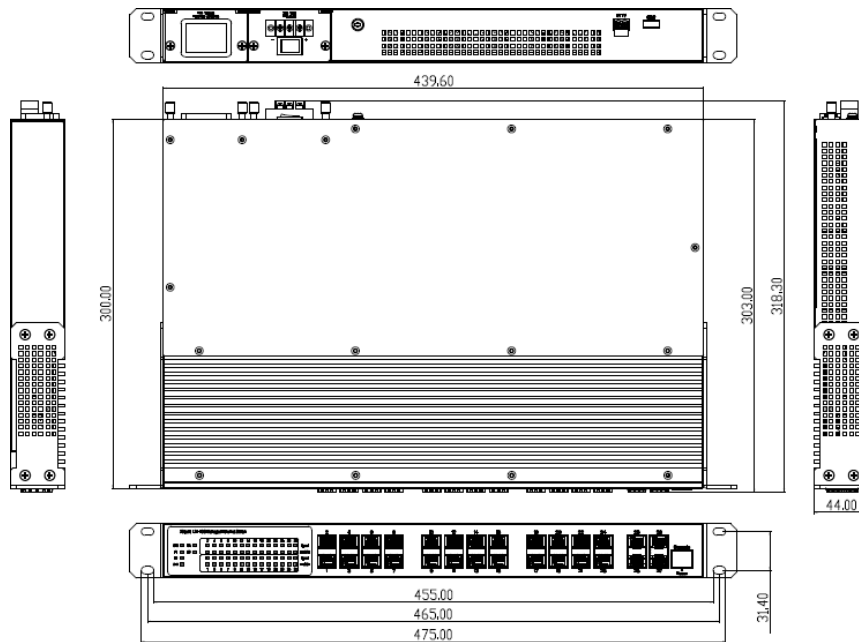


1xDigital Input  
1xDigital  
Output

Console, USB for  
management



## Installation dimensions



AVCOMM Technologies, Inc. All rights reserved. Trademarks and trade names that may be used in this document are owned by their respective companies. Specifications subject to change without notice. Please ask our sales for the most up-to-date product information. Avcomm Technologies Inc. Add: 333 West Loop North Ste. 460, Houston, TX 77024