



5100 Industrial Data Switch Datasheet

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



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5100 Series All Gigabit Layer 3 Switches

The 5100 series switches are a new generation of intelligent access switches launched by AVCOMM for carrier resident networks and enterprise networks. ANMS software platform based on the new generation of high-performance hardware and independent intellectual property rights, 5100 series supports powerful ACL, QinQ, QoS and other functions, and supports three-layer routing. Its simple and simple management mode and flexible installation mode enable the product to meet the access requirements of various complex scenarios.



Carrier Ethernet Access Switch

- Support carrier-class Ethernet ring network protection protocol, protection switching time < 50ms; also support STP/RSTP protocol, dual uplink active/standby link protection, LACP link aggregation and other simple and efficient redundancy protection mechanisms to meet users' needs for high reliability requirements.
- The powerful ACL function supports L2~L7 data access and control, providing users with flexible and diverse policy control methods.
- The ISSU (In-Service Software Upgrade) service is supported without interrupting the system upgrade, ensuring the uninterrupted forwarding of user data during system upgrade.
- Supports rich Layer 2 multicast functions, including IGMP-Snooping, user quick leave mechanism and cross-VLAN multicast replication.

Rich QoS policies

- It supports the classification of complex flows based on VLAN, MAC, source address, destination address, IP protocol, priority, etc., and supports re-marking of priorities, providing a reliable and effective means for users to optimize services.
- Provide flexible bandwidth control policies, support port-based or flow-based rate limiting functions, and ensure wire-speed forwarding of each port, thereby effectively ensuring the quality of network services.
- Supports multiple queue scheduling algorithms such as SP, WRR or SP+WRR.

Complete security mechanism

- Device-level security protection: advanced hardware architecture design, hardware implements hierarchical scheduling and protection of packets, supports protection against DoS, TCP SYN Flood, UDP Flood, broadcast storm, large traffic and other attacks on devices; supports command-line hierarchical protection, different levels of users have different administrative rights;
- Complete security authentication mechanism: It supports IEEE 802.1x, Radius, Tacacs+, etc., and can provide users with a complete security authentication mechanism.
- Supports the suppression of broadcast, multicast and unknown unicast packets to ensure the normal operation of the device under harsh network conditions.
- The perfect loop detection mechanism can ensure the stable operation of the network for a long time.
- Provides port isolation in the same VLAN, and security features such as DHCP-Snooping, IP+MAC+port binding, etc., to further ensure user data security.

Comprehensive IPv6 Solutions

- It fully supports the IPv6 protocol suite, and supports IPv6 features such as IPv6 neighbor discovery, ICMPv6, and Path MTU discovery.
- Support IPv6-based Ping, Traceroute, Telnet, SSH, ACL, etc., to meet the needs of pure IPv6 network device management and business control.

Flexible and convenient management and maintenance

- Support Console, Telnet, SSH and other management methods.
- It supports WEB management, which is simpler and more efficient, and is convenient for installation and debugging by engineering and maintenance personnel.
- Supports file upload and download management in TFTP mode.
- Support ISSU (In-Service Software Upgrade) service without interruption of system upgrade.
- It supports standard SNMP protocol and cooperates with our company's "ANMS" intelligent network management platform to realize automatic device discovery, network topology management, device configuration management, performance data statistical analysis, fault management and other functions, which simplifies network management and provides users with new user experience.

Ordering Information

Model Name	Description
5110GX2	10-port industrial data switch, light layer 3, 8 10/100/1000Base-T(X) electrical ports, 2 100/1000BaseSFP+ slots, fanless, 19-inch rack, single power supply 100-240VAC, -10° C-50°C
5128GX4	28-port industrial data switch, light layer 3, 24 10/100/1000Base-T(X) copper ports, 4 100/1000BaseSFP+ slots, fanless, 19-inch rack, single power supply 100-240VAC, -10° C-50°C

Model	5110GX2	5128GX4
exchange Capacity	336Gbps/3.36Tbps	
Packet Forwarding Rate	28Mpps/102Mpps	51Mpps/126Mpps
Dimension	280*180*44	440*180*44
Power Consumption	< 12W	< 40W
Power	AC: 100V-240V, 50Hz±10% DC: 36V~72V (DC model)	
Operating Temperature & Humidity	Working temperature/humidity: -10°C-50°C, 10%-90% Non- Condensing Storage temperature/humidity: -40°C-75°C; 5%-95% Non- Condensing	
Mac Swap	Support static configuration and dynamic learning of MAC address Supports viewing and clearing MAC addresses MAC address aging time is configurable Support MAC address learning quantity limit Support MAC address filtering function Supports IEEE 802.1AE MacSec Security Control	
VLAN	Support 4K VLAN entries Support GVRP Support QinQ function Support Private VLAN Support voice vlan	
Ring Network Protection	Support 802.1D (STP), 802.1W (RSTP), 802.1S (MSTP) Support BPDU protection, root protection, loop protection Support EAPS Ethernet Link Automatic Protection Protocol Support ERPS Ethernet ring network protection protocol	
Multicast	Support IGMP v1/v2/v3 Support IGMP Snooping Support IGMP Fast Leave Support multicast group policy and multicast group quantity limit Support replication of multicast traffic across VLANs	
IP Routing	Support ipv4/ipv6 dual stack protocol Support static routing Support RIP, OSPF dynamic routing	
IPv6	Support ICMPv6, DHCPv6, ACLv6, IPv6 Telnet Support for IPv6 Neighbor Discovery Support Path MTU discovery Support MLD v1/v2 Support MLD Snooping	
DHCP	Support DHCP Server Support DHCP Relay Support DHCP Client Support DHCP Snooping	

ACL	<ul style="list-style-type: none"> Supports Layer 2, Layer 3, and Layer 4 ACLs Support IPv4, IPv6 ACL Support VLAN ACL
QoS	<ul style="list-style-type: none"> Support traffic classification based on each field of L2/L3/L4 protocol header Support CAR flow limit Support 802.1P/DSCP priority re-marking Support queue scheduling methods such as SP, WRR, SP+WRR, etc. Support Tail-Drop, WRED and other congestion avoidance mechanisms Supports traffic policing and traffic shaping
Safety Features	<ul style="list-style-type: none"> Support L2/L3/L4 based ACL flow identification and filtering security mechanism Support anti-DDoS attack, TCP SYN Flood attack, UDP Flood attack, etc. Supports the suppression of multicast, broadcast and unknown unicast packets Support port isolation Support port security, IP+MAC+port binding Support DHCP snooping, DHCP option82 Support IEEE 802.1x authentication Support Radius, Tacacs+ authentication Support command line hierarchical protection
Reliability	<ul style="list-style-type: none"> Support static/LACP mode link aggregation Support UDLD unidirectional link detection Support Ethernet OAM Support system upgrade without interruption of ISSU service
Management and Maintenance	<ul style="list-style-type: none"> Support Console, Telnet, SSH 2.0 Support ZTP Zero Touch Provisioning Support browser-based WEB management Support SNMP v1/v2/v3 Support file upload and download management in TFTP mode Support for RMON event history

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