



AVCOMM®

# 5200 Industrial Data Switch Datasheet

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



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## 5200 Series All Gigabit Layer 3 Switches

The 5200 series switches are a new generation of intelligent switches launched by AVCOMM for operators' IP metropolitan area networks, government and enterprise networks, Internet cafes, and diskless working environments. 5200 is based on a new generation of high-performance hardware and ANMS software platform with independent intellectual property rights, supports powerful ACL, flexible QinQ, 1:1 and N:1 VLAN switching, Ethernet OAM, carrier-grade QoS, industrial-grade 10 Gigabit Ethernet Ring network and other functions, support Layer 3 routing protocols. This series of products can meet the application requirements of various complex scenarios. The 5200 series switches have three product forms: 5228TG4, 5236TG28, and 5254TG6, which can meet the application requirements of networks of different scales.



5228TG4



5236TG28



5254TG6



### Innovative VSS Virtualized Virtual Chassis Technology

- The 5200 series supports the innovative Virtual Switch System (VSS) virtualized cluster switching technology, which can virtualize multiple physical devices into one logical device. The equipment has unparalleled superiority.
- Double the performance: The virtualized system can make full use of every link between physical devices, avoid the blockage of the link by the traditional networking model Spanning Tree Protocol, make the best use of everything, double the performance, and protect the original link investment to the greatest extent.
- High reliability: Based on advanced distributed processing technology, through the efficient cross-physical device link aggregation function, the three-plane separation of logical control plane, service control plane and service data plane is realized, providing uninterrupted Layer 3 routing and forwarding, avoiding The service interruption caused by the single point of failure is greatly improved, and the reliability of the virtual system is greatly improved.
- Easy to manage: The entire virtual system is managed by a single IP, and the actual physical devices are transparent to users, which simplifies the management of network devices and network topology, greatly improves network operation efficiency, and effectively reduces operation and maintenance costs.

### Carrier Ethernet Switch

- Supports carrier-class Ethernet ring network protection protocol, protection switching time <50ms; supports STP/RSTP/MSTP protocol, dual uplink active/standby link protection, LACP link aggregation and other simple and efficient redundancy protection mechanisms to meet carrier-class high reliability requirements.
- The perfect Ethernet OAM mechanism can quickly detect and locate faults through real-time monitoring of the network running status.
- The powerful ACL function supports the access and control of L2~L7 layer data based on physical ports, VLAN, MAC, IP, protocol port numbers, etc., 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.

## Industrial Ethernet ring network function, zero delay, zero packet loss

- It supports industrial-grade Ethernet ring network protection protocol, and the protection switching time is less than 50ms. After years of use and verification by our company in electric power, rail transit, military and other industries, it can meet the high reliability requirements of zero packet loss.

## 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.

## Carrier-Grade QoS Policy

- 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.
- It provides flexible bandwidth control policies, supports port-based or flow-based rate limiting functions, and ensures wire-speed forwarding of each port, thereby effectively ensuring the quality of high-quality voice, video, and data network services.
- Each port hardware supports 8 priority queues.
- Supports multiple queue scheduling algorithms such as SP, WRR or SP+WRR.

## Perfect 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: supports IEEE 802.1x, Radius, Tacacs+, etc., providing 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.

## 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 experience

## Ordering Information

Model Name	Description
<b>5228TG4</b>	28-port industrial data switch, light layer 3, 24*10/100/1000Base-T(X) ports, 4* 1G/10GBaseSFP+, fanless, 19-inch rack, single power supply 100-240VAC, -10° C to 50°C
<b>5236TG28</b>	36-port industrial data switch, light layer 3, 24*100/1000BaseSFP+, 4*1G/10G BaseSFP+, 8*Combo Ports, fan-less, Rack Mounting, standard built-in power supply 100-240VAC, -10°C to 50°C
<b>5254TG6</b>	54-port industrial data switch, light layer 3, 48*10/100/1000Base-T(X) ports, 6*1G/10GBaseSFP+, fanless, 19-inch rack, single power supply 100-240VAC, -10° C to 50°C

model	5228TG4	5236TG28	5254TG6
<b>exchange capacity</b>	336Gbps/3.36Tbps		
<b>packet forwarding rate</b>	108Mpps	108Mpps	178Mpps
<b>Number of MAC Address</b>	16K	32K	32K
<b>Dimension</b>	440×180×44	440×280×44	440×280×44
<b>Full load power consumption</b>	<30W	<40W	<40W
<b>power</b>	AC: 100V-240V, 50Hz±10% DC: 36V~72V (DC model)		
<b>Operating Temperature &amp; Humidity</b>	Working temperature/humidity: -10°C-50°C, 10%-90% Non- Condensing Storage temperature/humidity: -40°C-75°C; 5%-95% Non- Condensing		
<b>Virtualization</b>	Support bvss virtualization		
<b>Mac swap</b>	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		
<b>VLAN</b>	Support 4K VLAN entries Support GVRP Support QinQ function Support Private VLAN Support voice vlan		
<b>Ring network protection</b>	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		
<b>Multicast</b>	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		
<b>IP routing</b>	Support ipv4/ipv6 dual stack protocol Support static routing Support RIP, OSPF dynamic routing Support VRRP virtual routing		
<b>IPv6</b>	Support ICMPv6, DHCPv6, ACLv6, IPv6 Telnet Support for IPv6 Neighbor Discovery Support Path MTU discovery Support MLD v1/v2 Support MLD Snooping		

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

## 1000Base FX

<b>Multi Mode</b>	AVC-SFP-SX (550m)	Wavelength: 850 nm
	AVC-SFP-LX-S (2km)	Wavelength: 1310 nm
<b>Single Mode</b>	AVC-SFP-LX-10 (10km)	Wavelength: 1310 nm

## 10GBase FX

<b>Single Mode</b>	AVC-SFP-LZ-10 (10km)	Wavelength: 1310 nm
	AVC-SFP-LZ-20 (20km)	Wavelength: 1310 nm
	AVC-SFP-LZ-40 (40km)	Wavelength: 1310 nm
	AVC-SFP-LZ-80 (80km)	Wavelength: 1550 nm