



5300 Industrial Data Switch Datasheet

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



AVCOMM Technologies, Inc

www.avcomm.us

Email: info@avcomm.us

Phone: (713) 933-4534

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

5300 Series 10 Gigabit Switches

The The 5300 series is a new generation of aggregation 10 Gigabit switches launched by AVCOMM for next-generation IP metropolitan area networks, large campus networks, and enterprise networks. The product adopts the industry's advanced hardware architecture and is equipped with the ANMS operating system with independent intellectual property rights. On the basis of providing high-performance L2/L3/L4 wire-speed switching services, it further integrates IPv6, MPLS VPN, network security, and other networks. Services, combined with a variety of high-reliability technologies such as uninterrupted upgrade, uninterrupted forwarding, graceful restart, and redundancy protection, thus ensure the uninterrupted communication capability of the network for the longest time. The 5300 series has 5330TG6, 5338TG30, 5354TG6, 5354TG30 product forms, supports up to 48 Gigabit + 6 10 Gigabit ports, and can meet the port density and performance requirements of different scale networks for equipment.



Advanced hardware architecture design, industry-leading powerful processing capabilities

- On the 1U box switch, it achieves a high port density of 48 gigabits + 6 10 gigabits, and is equipped with high-performance ASIC switching chips, which can meet the application requirements of various complex scenarios.

Innovative green design

- Intelligent power management system:** 5300 series adopts advanced power system architecture design to achieve efficient power conversion, unique power monitoring, slow start and other functions, real-time monitoring of the running status of the whole machine, intelligent adjustment, and deep energy saving.
- Intelligent fan management system:** The intelligent fan design supports automatic speed regulation, which effectively reduces the rotation speed, reduces noise, and prolongs the service life of the fan.

Innovative VSS Virtualized Virtual Chassis Technology

- The 5300 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-class high reliability

- Based on the HPS (Hitless Protection System) non-disruptive protection system, the key components of the 5300 series, such as power modules, are dual-backup, hot-swappable, and support seamless switchover in case of failure without manual intervention.
- The 5300 series supports STP/RSTP/MSTP protocol, VRRP protocol, ring network protection, dual uplink active/standby link protection, LACP link aggregation and other simple and efficient redundancy protection mechanisms.
- Support ISSU (In-Service Software Upgrade) service without interruption of system upgrade, ensuring the uninterrupted forwarding of user data during system upgrade.
- The ultra-high-precision BFD bidirectional link detection mechanism, through linkage with Layer 2 and Layer 3 protocols, can achieve millisecond-level fault detection and service recovery, greatly improving the reliability of the network system.
- The perfect Ethernet OAM mechanism supports 802.3ah, 802.1ag and ITU-Y.1731, and realizes the rapid detection and location of faults through real-time monitoring of the network running status.
- The high-reliability design of the 5300 series software and hardware meets the 50ms fault recovery time requirement of carrier-class services, and truly achieves the high reliability of 5 9s (99.999%) of carrier-class core equipment.

Rich business features

- Perfect Layer 2 and Layer 3 multicast routing protocols meet the access requirements of IPTV, multi-terminal HD video surveillance and HD video conferencing;
- The complete three-layer routing protocol and the large routing table capacity can meet the needs of various types of network interconnection, and can build a super-large campus network, enterprise network and private network for industry users.
- It fully supports Layer 2 and Layer 3 MPLS VPN, and can build a super-large MPLS VPN core network to meet the access requirements of industry private network VPN users and enterprise network VPN users

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.

Comprehensive IPv6 Solutions

- Fully supports the IPv6 protocol suite, and supports IPv6 features such as IPv6 neighbor discovery, ICMPv6, Path MTU discovery, and DHCPv6.
- Support IPv6-based Ping, Traceroute, Telnet, SSH, ACL, etc., to meet the needs of pure IPv6 network device management and business control.
- It supports IPv6 multicast features such as MLD and MLD Snooping, and supports IPv6 Layer 3 routing protocols such as IPv6 static routing, RIPng, OSPFv3, and BGP4+, providing users with complete IPv6 Layer 2 and Layer 3 solutions.
- Supports abundant IPv4 to IPv6 transition technologies, including: IPv6 manual tunnel, automatic tunnel, 6to4 tunnel, ISATAP tunnel and other tunnel technologies to ensure the smooth transition from IPv4 network to IPv6 network.

Ordering Information

Model Name	Description
5330TG6	30-port industrial data switch, 3 layer, 24-RJ45 ports 10/100/1000base-t (X), 6-1G/10GBaseSFP+ slots, fanless, 19-inch rack, single power 100-240VAC, 0°C-50 °C
5338TG30	38-port industrial data switch, 3 layer, 24-100/1000BASE-T + slots, 8-RJ45 ports 10/100/1000Base-T(X), 6-1G/10G Base-FP + slots, fanless, 19-inch rack, single power 100-240VAC, 0°C-50°C
5354TG6	54-port industrial data switch, 3 layer, 48-RJ45 ports 10/100/1000base-t (X), 6-1G/10GBaseSFP+ slots, fanless, 19-inch rack, single power 100-240VAC, 0°C-50 °C
5354TG30	54-port industrial data switch, 3 layer, 24-RJ45 ports 10/100/1000Base-T(X), 24-100/1000BaseSFP+ slots, 6-1G/10GBaseSFP+ slots, fanless, Rack Mounting, standard built-in power supply 100-240VAC, 0°C-50°C

model	5330TG6	5338TG30	5354TG6	5354TG30
exchange capacity	598G/5.98T			
packet forwarding rate	222M/342M	222M/342M	252M/342M	252M/342M
Dimension	440*350*44 (mm)			
Number of MAC Address	32K/64K			
power	AC: 100V-240V, 50Hz±10% DC: 36V~72V			
Operating Temperature & Humidity	Working temperature/humidity: -10°C-50°C, 10%-90% Non- Condensing Storage temperature/humidity: -20°C-70°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	Supports 4K VLAN entries Support GVRP Support 1:1 and N:1 VLAN Mapping Support basic QinQ function Support flexible QinQ function Support Private VLAN			
STP	Support 802.1D (STP), 802.1W (RSTP), 802.1S (MSTP) Support BPDU protection, root protection, loop protection			
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 Support PIM-SM、PIM-DM			
IPv4	Support static routing, RIP v1/v2, OSPF, BGP, IS-IS, BEIGRP Support policy routing Support equal-cost routing to achieve load balancing Support BFD for OSPF, BGP			
IPv6	Support ICMPv6, DHCPv6, ACLv6, IPv6 Telnet Support for IPv6 Neighbor Discovery Support Path MTU discovery Support MLD v1/v2 Support MLD Snooping Support IPv6 static routing, RIPng, OSPFv3, BGP4+ Support manual tunnel, ISATAP tunnel, 6to4 tunnel			

MPLS VPN	<ul style="list-style-type: none"> Support LDP protocol Support MCE P/PE functional requirements to support MPLS VPN Support MPLS TE Support MPLS OAM
QoS	<ul style="list-style-type: none"> Support traffic classification based on each field of L2/L3/L4 protocol header Support CAR flow limit Supports 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 Support Ingress and Egress ACLs, supports matching L2, L3, L4 and IP quintuple for replication, forwarding, and discarding Support Hash homologous and homologous load balancing to ensure session integrity of traffic output
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 spoofing, DHCP option82 Support IEEE 802.1x authentication Support Radius, Tacacs+ authentication Support command line hierarchical protection
reliability	<ul style="list-style-type: none"> Optional power supply 1+1 backup Support static /LACP link aggregation and link aggregation across service cards Support EAPS and ERPS ring protection Support HSRP and VRRP hot backup protocols Support GR for OSPF and BGP Support BFD for OSPF and BGP Support ISSU services without interrupting system upgrade
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 Support traffic statistics analysis such as sFLOW
green technology	<ul style="list-style-type: none"> Support IEEE 802.3az Green Energy Efficient Ethernet

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

10GBase FX

Single Mode	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