

Carat20-R4GX24GP-HV

Rackmount L2 Industrial Ethernet Switches

Features

- 4 Gigabit port slots for fiber, 24 Gigabit TX ports
- Electrical port support IEEE 802.3at standard (POE +)
- Recovery time of ring network < 20ms
- High strength aluminum alloy sealed shell structure
- Industrial fanless design, Suitable for long working hours
- Support AutoSniffer device management software



Product Overview

Carat20-R4GX24GP-HV Rackmount Layer 2 Industrial Ethernet Switch is designed for network communication in industrial fields such as smart city, new energy, intelligent transportation and industrial automation, etc. It complies with industry standards such as EN60950, EN50032, and obtains many certifications such as CE, FCC, etc. It is suitable for industrial field environments with strict requirements for EMC (Class 3), and can Provide highly reliable industrial network connectivity solutions for different industrial applications.

Carat20-R4GX24GP-HV adopts store-and-forward switching and provides 24 10/100/1000 Base-TX RJ45 ports, all TX ports support up to 30W (802.3at standard) POE+ power supply, and 4 Gigabit Combo optical slots.

Carat20-R4GX24GP-HV supports network management functions based on command line CLI, Telenet, SNMP, SSH, Web page, etc. It also supports Layer 2 switching functions such as Virtual LAN (VLAN), Multicast Snooping (IGMP Snooping), Link Aggregation Convergence (LACP) and Quality of Service (QoS).

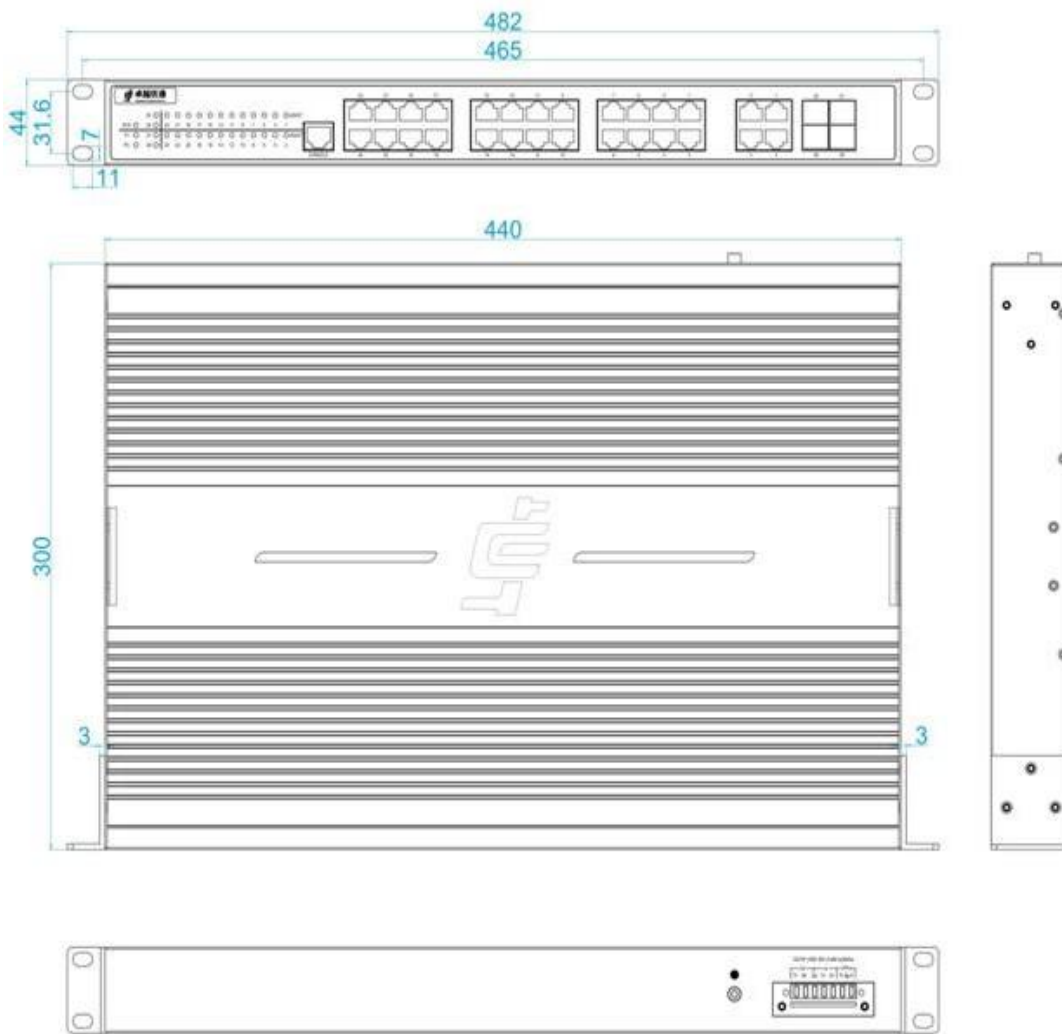
Specifications

Compliances	
Standards	IEEE 802.3i(10Base-T) IEEE 802.3u(100Base-TX) IEEE 802.3ab(1000Base-T) IEEE 802.3z(1000Base-SX/LX) IEEE 802.3ad (port aggregation) IEEE 802.3x (Flow Control) IEEE 802.1p (Prioritization) IEEE 802.1Q(VLAN) IEEE 802.1d(STP) IEEE 802.1w(RSTP) IEEE 802.3af (POE) IEEE 802.3at (POE+)
Switch Properties	
Mode	Store and forward
Switching Capacity	56Gbps
Forwarding Rate	41.66Mpps
Date buffer	12Mbit
MAC Address	16K
Switching delay	<10μs
Physical port	
Electric port	24 10/100/1000Base-TX ports, RJ45, automatic flow control, full/half duplex mode, MDI/MDI-X auto-detect, all electrical ports support up to 30W (802.3at standard) POE+ power supply
Optical Port	4 Gigabit Combo Optical Port Slots, LC
Network management port	1 Console Management Port (RS-232), RJ45
LED Indicator	SYSTEM (SYS) , POWER (P1,P2) , PORT (Link/ACT) POE indicator (POE)
Main Features	
VLAN	Supports IEEE802.1Q VLANs
Reliability	Support STP, RSTP, MSTP, MRP Supports LACP load balancing Supports G.8032 standardized ring protocol (ERPS) Supports Loopback detection
Security	Support port speed limit Supports storm control for bps and pps
Multicast	Supports IGMP v1/v2 snooping, IGMP fast leave
QoS	Supports ACL-based flows, VLAN ID, COS, DSCP

	Supports DSCP, COS/802.1p prioritization, Supports 8 queues per port Supports SP, WRR queue scheduling algorithms
ACL	Supports IP ACLs that match based on fields such as source/destination IP, IP protocol type, IP precedence, TCP/UDP source and destination Match based on source/destination IP, IP protocol type, IP priority, TCP/UDP source and destination port number, etc. Supports MAC ACL, matching based on source/destination MAC, VLAN ID, COS and other fields. Supports IP+MAC combination ACL
Security Network Management	Support for CLI IPv4 HTTP support IPv4 FTP/TFTP support IPv4 SNTP/NTP support SSH support for IPv4 IPv4 syslog support Support for SNMPv1/v2c/v3 Support MIB interface, support Trap Supports Dual IMG LLDP support
Mechanical	
Dimensions	440mm×300mm×44mm (W×D×H)
Weight	4.5kg
Installation	19-inch 1U Rackmount
Protection	IP30 rated, pleated high-strength metal housing, heat sinks for heat dissipation
Electrical	
Input Voltage	220VAC power input, 7-pin 5.08mm pitch terminal block (relay occupies 2 positions)
Alarm port	Support 1 relay alarm output, terminal block
Power	Non-POE <18W POE: All ports support up to 30W (802.3at standard) power supply, maximum PoE power supply power 370W
Working Environment	
Operating Temperature	-40°C~75°C
Storage Temperature	-40°C~85°C
Relative Humidity	5%~95% (Non condensing)
Certifications	
System certification	ISO9001, ISO14001, ISO22163 (IRIS)
Standard certification	CE, FCC, network access license
Safety	EN60950, UL508
EMC	EMI FCC CFR47 Part 15B Class A, CE EN55032 Class A

	EMS	ESD	EN61000-4-2
		RS	EN61000-4-3
		EFT	EN61000-4-4
		Surge	EN61000-4-5
		CS	EN61000-4-6
		PFMF	EN61000-4-8
Vibration	Compliance with IEC 60068-2-6		
Shock	Compliance with IEC 60068-2-27		
Freefall	Compliance with IEC 60068-2-32		
MTBF	Mean Time Between Failure (MTBF) greater than 500,000 hours		

Physical Dimensions



Model	Description
Carat20-R4GX24GP-HV	Rackmount L2 industrial Ethernet switch, 4 Gigabit Combo optical slots, 24 Gigabit electrical ports, all electrical ports support up to 30W (802.3at standard) power supply, up to 370W PoE power supply, 220VAC power input, IP30 protection class
Carat 20 series products recommendation	
Carat20-R4GX16GT-HV	Rackmount L2 industrial Ethernet switch, 4 Gigabit Combo optical slots, 24 Gigabit electrical ports, all electrical ports support up to 30W (802.3at standard) power supply, up to 370W PoE power supply, 220VAC power input, IP30 protection class
Carat20-R4GX24GT-HV	
Carat20-R4GX24GT-RHV	Rackmount L2 industrial Ethernet switch, 4 Gigabit Combo optical slots, 16 Gigabit electrical ports, 220VAC power input, IP40 protection rating
Carat20-R4GX24GP-HV	Rackmount L2 Industrial Ethernet Switch, 4 Gigabit Combo Optical Slots, 24 Gigabit Electrical Ports, 220VAC Power Input, IP40 Protection Grade