IEM6300-20G

Embedded Mounting

Multi-Service Access Managed Industrial Ethernet Switch Module

- Support 16 10/100/1000Base-T(X) and 4 1000Base-X
- Adopt SW-Ring patented technology, support single ring, coupling ring, chain, Dual-homing, automatic recovery time of network failure < 20ms
- Support multiple network protocols and industry standards, such as IPv6, STP/RSTP/MSTP, ERPS, VLAN, QoS, LACP, DHCP, IGMP Snooping, LLDP, ACL, SNMP and MEP.
- Input voltage: 3.3VDC±5%
- Support -40~75℃ wide operating temperature range

Introduction

IEM6300-20G is a multi-service access managed embedded industrial Ethernet switch module, which has the characteristics of high integration, small size, rich functions, simple and convenient. The product provides 16 Gigabit copper ports, 4 Gigabit fiber ports; Using embedded installation mode, users can customize the PCB floor specifications, through the module pins can choose any Ethernet interface type, to meet the needs of different application sites.

The network management system supports a variety of network protocols and industry standards, such as IPv6, Ring, STP/RSTP/MSTP, ERPS, DHCP Server/Snooping/Relay, VLAN, QoS, IGMP Snooping, LLDP, Port Trunking and Port Mirroring. It possesses complete management functions and supports Port Configuration, NAS, ACL, Network Diagnosis, Online Upgrade, etc. CLI, WEB, TELNET, SSH, SNMP and other access methods can be supported. Network management system could bring you great user experience through its friendly interface design and easy and convenient operation.

Hardware adopts fanless, low power consumption, wide temperature and voltage design and has passed rigorous industrial standard tests, which can suit for the industrial scene environment with harsh requirements for EMC. It can be widely used in smart city, rail transit, smart city, safety city, new energy, intelligent manufacturing and other industrial fields.

Features and Benefits

- IPv6 supports end-to-end security and provides enormous address space, facilitating the hierarchical network design
- SNMPv1/v2c/v3 is used for network management of various levels
- RMON can be used for efficient and flexible network monitoring
- QoS supports real-time traffic classification and priority setting
- LLDP can achieve automatic topology discovery, which is convenient for visual management
- DHCP server and DHCP client could be used for allocating IP address of different strategies
- DHCP Snooping can ensure DHCP client gets IP address from legal DHCP server
- DHCP relay function can realize IP address, gateway, DNS configuration cross network segment
- File management is convenient for the device rapid configuration and online upgrading
- User privilege classification configuration can set user privilege level
- SSH configuration and HTTPS configuration can improve device's management security and guarantee data access security
- Support NAS network access service and provide security assurance for multiple services

⊙ MEP function can determine the scope and boundary of maintenance domain

⊙ Ring and STP/RSTP/MSTP can achieve network redundancy, preventing network storm

⊙ EPRS function can realize link backup and improve the reliability of network

⊙ Storm suppression can restrain broadcast, unknown multicast and unicast

⊙ VLAN is used for simplifying network planning

⊙ Port Trunking and LACP can increase network bandwidth and enhance the reliability of network connection to achieve optimum bandwidth utilization

⊙ IGMP Snooping can be used for filtering multicast traffic to save the network bandwidth

⊙ Support DDM (digital diagnostic monitoring) function, which can monitor the optical power, temperature and other real-time parameters of SFP fiber module with DDM function, facilitating the link default diagnosis of optical fiber

⊙ Network diagnosis and troubleshooting could be conducted via Ping, Ping6 and cable detection

⊙ Port mirroring can conduct data analysis and monitoring, which is convenient for online debugging

Dimension

Unit: mm
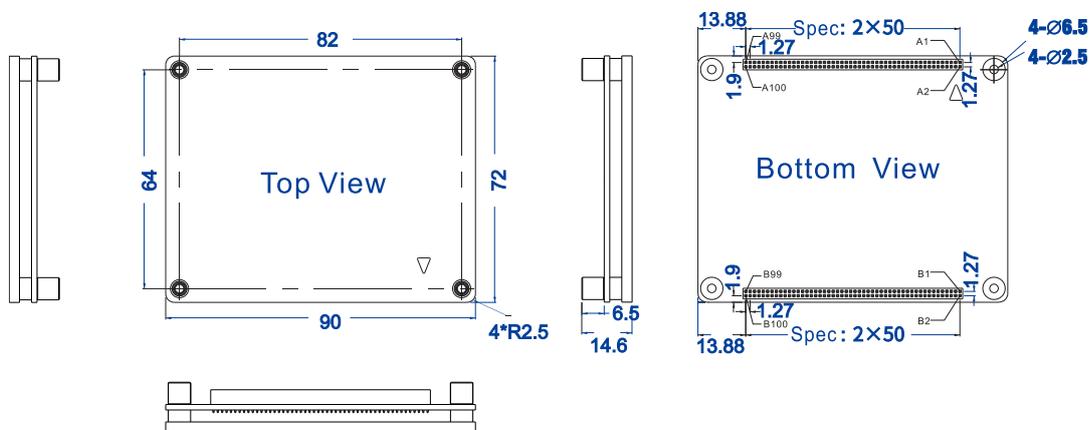
Specification

Standard & Protocol	IEEE 802.3 for 10Base-T
	IEEE 802.3u for 100Base-TX and 100Base-FX
	IEEE 802.3z for 1000Base-X
	IEEE 802.3ab for 1000Base-T
	IEEE 802.3x for Flow Control
	IEEE 802.1D for Spanning Tree Protocol
	IEEE 802.1w for Rapid Spanning Tree Protocol

	IEEE 802.1s for Multiple Spanning Tree Protocol ITU-T G.8032 for ERPS IEEE 802.1Q for VLAN IEEE 802.1p for CoS IEEE 802.1X for 802.1X Authentication IEEE 802.1AB for LLDP IEEE 802.3ad for LACP
Management	SNMP v1/v2c/v3 Centralized Management of Equipment, QoS, DHCP Server, DHCP Snooping, DHCP Relay, Static MAC Address, LLDP, LLDP-MED, Storm Suppression, User Password, Login Method, File Management, Log Management, Port Statistics, MEP
Security	User Privilege Classification, Authentication Method Configuration, SSH Configuration, HTTPS Configuration, Access Control, SNMP, RMON, Port Limit Control, Port Security, NAS, ACL, Ethernet Services, RADIUS Server Authentication, TACACS + Server Authentication, Port Alarm, Loop Protection, Temperature Protection
Switch Function	802.1Q VLAN, Static Aggregation, LACP
Unicast / Multicast	IGMP Snooping,Unicast MAC
Redundancy Technology	Ring, STP/RSTP/MSTP, ERPS
Troubleshooting	Ping, Ping6, Cable Detection, Port Mirroring, DDMI
Time Management	NTP, Time Zone Configuration
Interface	● Ethernet port Gigabit copper port: 16 10/100/1000Base-T(X) Gigabit fiber port: 4 1000Base-X ● Console port TTL level serial data ● Alarm interface support 1 alarm output

Switch Property	Transmission mode: store and forward 100M forwarding speed: 148810pps Gigabit forwarding speed: 1488100pps MAC address: 8K Buffer: 4Mbit Backplane bandwidth: 40G Switch time delay: <10μs
Power Supply	3.3VDC±5%
Power Consumption	Full-load: 14.8W (including DEMO board@12VDC)
Working Environment	Operating temperature: -40~75℃ Storage temperature:-40~85℃ Relative humidity: 5% ~ 95% (no condensation)
Physical Characteristic	Installation: embedded mounting Dimension (W x H x D): 90mm×72mm×14.6mm
Authentication	CE, FCC, RoHS
Warranty	5 years

Ordering Information

Available Models	Gigabit Copper Port	Gigabit Fiber Port	Power Supply
IEM6300-20G	16	4	3.3VDC±5%

Address: 3/B, Zone 1, Baiwangxin High Technology Industrial Park, Song Bai Road, Nanshan District, Shenzhen, 518108, China

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◀ Please scan our QR code for more details

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