

JetNet 5008G-P

Industrial 6+2G Gigabit Embedded Managed Switch Board



- Independable Embedded Managed Switch Board with 200mm (W) x 140mm(D) x30mm(H) board size
- 6 10/100Base-TX and 2 Gigabit RJ-45/SFP combo ports
- Internal Gigabit Ethernet port for your system connectivity
- 11.5 Watts lower power consumption at DC48V
- Watchdog timer for unexpected failure
- Supports Rapid Super Ring, MSR™, RSTP, VLAN, GVRP, QoS, IGMP Snooping V1/V2/V3, Rate Control, Port Trunking, LACP, Online Multi-Port Mirroring
- Supports Web, SNMP V1/V2c/V3, RMON, HTTPS and SSH management
- Advanced security feature supports IP Security, Port Security, DHCP Server, IP and MAC Binding, 802.1x network access control
- Redundant Power Input DC12~48V
- 2 Dry Relay Output for Ethernet Switch

Overview

The JetNet 5008G-P is an Embedded Managed Switch Board, also known as EMSB. The board is designed with six 10/100-TX and two RJ-45/SFP combo front ports, one internal port for system connectivity and management. The EMSB is specially designed to combine with your embedded task-specific system. The board size is just 200mm (W) x 140mm (D) x 30mm (H), giving flexibility and compatibility in system integrating.

To enlarge your system value, JetNet 5008G-P provides abundant embedded value-added features. The layer 2 management features include multi-form ring redundancy, network control, management, monitor, security and notification. The JetNet 5008G-P also provides built-in watchdog timer to avoid undetected damage. With JetNet 5008G-P EMSB, you can easily integrate the board with your existing embedded system.

EMSB- Designed for Embedded System

JetNet 5008G-P is an Embedded Managed Switch Board (EMSB), can easily apply to your task-specific embedded system. 6 + 2 Gigabit RJ-45/SFP combo front ports and one internal port can connect or control the EMSB by Web UI, Telnet, SNMP and

JetView. JetNet 5008G-P is also designed with dual 12-48VDC terminal block on board for low power requirements. The embedded power supply of the system can boot up the two independent systems easily.

Industrial
PoE Switch

IP67/68
Ethernet Switch

Rackmount
Managed
Switch

Gigabit Switch

Redundant
Switch

Entry-Level
Switch

Networking
Computer

Communication
Computer

Ethernet
I/O Server

Serial Device
Server

Media
Converter

Multiport
Serial Card

SFP Module

Din Rail
Power Supply

A Win / Win Flexible OEM Solution

By providing a variety of tailor-made products and services, Korenix, the pioneer of Industrial Ethernet switching, has the leading technology to fulfill your needs and demands. Our business goal is to let our customers spend less time and less money on their applications.

We offer switch board OEM/ODM services, including conformal coating for hazardous environment as well as wide-ranged fiber connection for lengthy network

distance. Our working experience and in-depth know-how of industrial networking communications, has enabled us to combine Taiwan's research/development ability with competitive production cost; hence, producing the most high performing and cost effective product in the market.

All Korenix products not only include a five years warranty, but a life-time online tech supports from experienced and well-trained technicians.

Non-Stop Network Transmission

A key element of a perfect embedded board is its reliability and compatibility. The JetNet 5008G-P is highly compatible with every vendor's equipment currently available in the market. Every JetNet 5008G-P comes with a built-in watch dog timer to maintain a non-stop operation. With RSTP over Rapid Super Ring (RSR) and Dual Homing II technology, the JetNet 5008G-P will automatically select an alternative route to transmit the data if the original route has been blocked and notify the administrator simultaneously.

With Rapid Super Ring, your network data is always transferred between switches via Gigabit ports with failover time in as low as 5ms; most importantly, the security of your data is never jeopardized. Furthermore, JetNet 5008G-P always remains operational from the disturbance of vibration, impact of shock, and environment of hazardous temperature (-20~70°C). Taking advantages of JetNet 5008G-P can help you to build up a network that is technically impossible to disconnect.

Easy-to-Configure Managing Software

JetNet 5008G-P switch board fully supports many known network management software such as HP Open View, MG-Soft, SNMPc, and the leading OPC server – Kepware's KEPServerEX. It provides users with many advanced managed functions including SNMP v1/v2c/v3, IGMP snooping v1/v2/V3, VLAN, QoS, Rate control, Port Trunk, LACP, 802.1x, DHCP Server, Port security and IP security, and more. These functions can be configured easily by CLI, SNMP and web browser. JetNet 5008G-P will fulfill your system requirements and network needs, and our software will save you time and efforts for your product

development simultaneously. With Rapid Super Ring, your network data is always transferred between switches via Gigabit ports with failover time in as low as 5ms; most importantly, the security of your data is never jeopardized. Furthermore, JetNet5008G-P always remains operational from the disturbance of vibration, impact of shock, and environment of hazardous temperature (-25~70°C). Taking advantages of JetNet 5008G-P can help you to build up a network that is technically impossible to disconnect.

Specification

Technology

Standard: IEEE 802.3 10Base-T Ethernet
 IEEE 802.3u 100Base-TX Fast Ethernet
 IEEE 802.3ab 1000Base-TX
 IEEE 802.3z Gigabit Ethernet Fiber
 IEEE 802.3x Flow Control and Back-pressure
 IEEE 802.1p class of service
 IEEE 802.1Q VLAN and GVRP
 IEEE 802.1D-2004 Rapid Spanning Tree Protocol (RSTP)
 IEEE802.3ad LACP
 IEEE802.1X Port_based Network Access Control

Performance

Switch Technology: Store and Forward Technology with 32Gbps Switch Fabric
System Throughput: 14,880pps for 10M Ethernet, 148,800pps for 100M Fast Ethernet, 1,488,100 for Gigabit Ethernet
Transfer packet size: 64 bytes to 1522 bytes (with VLAN Tag)
MAC Address: 8K MAC
Packet Buffer: 1Mbits
Transfer performance: 14,880pps for Ethernet and 148,800 for Fast Ethernet and transfer packet size from 64 to 1522Bytes.

Management

Configuration: Cisco-Like CLI, Web, DHCP Server/Client, warm reboot, reset to default, Admin password, Port Speed/Duplex Control, status, statistic, MAC address table display, static MAC, Aging time, SNMP v1, v2c, v3, Traps and RMON1
SNMP MIB: MIB-II, Bridge MIB, VLAN MIB, SNMP MIB, RMON and Private MIB
Port Trunk: Up to 5 Static Trunk and 802.3ad LACP
VLAN: 802.1Q VLAN, GVRP. Up to 64 VLAN groups
Quality of Service: Four priority queues per port, 802.1p COS and Layer 3 TOS/DiffServ
IGMP Snooping: IGMP Snooping V1/V2/V3 for multicast filtering and IGMP Query V1/V2
Rate Control: Ingress filtering for Broadcast, Multicast, Unknown DA or All packets and filtering for All packets.
NTP: Network Time Protocol to synchronize time from internet or local PC
Embedded Watchdog: Embedded hardware watchdog timer to auto reset system when failure occurred
Port Mirroring: Online traffic monitoring on multiple selected ports
Port Security: Port security to assign authorized MAC to specific port
IP Security: IP security to prevent unauthorized access
802.1x: Port_based Network Access Control

Ordering Information

JetNet 5008G-P 6+2G Gigabit Embedded Managed Switch Board

Includes:

- JetNet 5008G-P (without SFP transceiver)
- Documentation CD-ROM

DHCP Server: Up to 255 IP address, support IP and MAC binding

E-mail Warning: SMTP warning by pre-defined events

System Log: Supports both Local mode and Server mode

Network Redundancy

Rapid Spanning Tree Protocol:

IEEE802.1D-2004 Rapid Spanning Tree Protocol. Compatible with Legacy STP and IEEE802.1w.

Multiple Super Ring(MSR™): 2nd generation Korenix Ring Redundancy Technology. Failure recovery within 5ms.

Rapid Dual Homing (RDH™): Support multiple node to node, multiple path to one node to obtain more flexible and reliable architecture

TrunkRing™: Provides port aggregate function in ring path to get more bandwidth for higher throughput ring architecture

Multiple Ring: New generation of ring coupling technology without extra control port - TangentRing

Interface

Number of Ports:

10/100TX: 6 x RJ-45, Auto MDI/MDI-X, Auto Negotiation

10/100/1000TX: 2 x RJ-45 on front side, 1 x inner port.

SFP: 2 x Hot- Swappable SFP and combo with Gigabit RJ-45

Cables: 10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable, EIA/TIA-568 100-ohm (100m)

100 Base-TX: 2/4-pair UTP/STP Cat. 5 cable,

EIA/TIA-568 100-ohm (100m)

1000 Base-T: 4-pair UTP/STP Cat. 5, Cat-5e cable,

EIA/TIA-568 100-ohm (100m)

LED Indicators: 2 x Power (Green)

2 x SFP Link/Activity (Green)

Inner Port Link/Activity (Green)

System Power: 2 sets of power Input within 4-pin removable terminal block

Reset: Reset PIN is provided to restore default settings

Relay: 2 Dry relay outputs with 1A/DC24V carry ability

Reset: Internal connector is provided for chassis installation

Power Requirements

System Power: Dual Power Input, 12~48V/-12~-48V DC with Reverse Polarity Protection

Power Consumption: 12 Watts @ DC 48V

Mechanical

Dimension: 30mm(H) x 200mm (W) x 140mm (D)

Weight: 0.50kg without package and case

Environmental

Operating Temperature: -25 ~70°C

Operating Humidity: 0% ~ 95%, (non-condensing)

Storage Temperature: -40 ~ 85°C

Hi-Pot: 1.2KV for all ports and power

EN 50155 Railway: compliance

Regulatory Approvals

MTBF: 249,683 Hours, MIL-HDBK-217F GB standard

Warranty: 5 years