

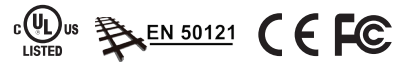
IKS-G6524A/G6824A Series

24G-port Layer 2 / Layer 3 full Gigabit managed Ethernet switches



*Available in Q3, 2014

- > Layer 3 routing interconnects multiple LAN segments (IKS-G6824A series)
- > 24 Gigabit Ethernet ports
- > Up to 24 optical fiber connections (SFP slots)
- > Fanless, -40 to 75°C operating temperature range (T models)
- > Turbo Ring and Turbo Chain (recovery time < 50 ms @ 250 switches), RSTP/STP, and MSTP for network redundancy
- > Isolated redundant power inputs with universal 110/220 VAC power supply range



Introduction

Process automation and transportation automation applications combine data, voice, and video, and consequently require high performance and high reliability. The IKS-G6524A/G6824A series full Gigabit backbone switches are equipped with 24 Gigabit Ethernet ports, and support Layer 3 routing functionality to facilitate the deployment of applications across networks, making them ideal for large scale industrial networks. The IKS-G6524A/G6824A's full Gigabit

capability increases bandwidth to provide high performance and the ability to quickly transfer large amounts of video, voice, and data across a network. The switches support the Turbo Ring, Turbo Chain, and RSTP/STP redundancy protocols, and are fanless and come with an isolated redundant power supply to increase system reliability and the availability of your network backbone.

Features and Benefits

- Layer 3 switching functionality to move data and information across networks (IKS-G6824A series)
- Command line interface (CLI) for quickly configuring major managed functions
- Supports advanced VLAN capability with Q-in-Q tagging
- Software based IEEE 1588 PTPv2 (Precision Time Protocol) for precise time synchronization of networks
- DHCP Option 82 for IP address assignment with different policies
- Support EtherNet/IP and Modbus/TCP protocols for device management and monitoring
- Compatible with EtherNet/IP and PROFINET protocols for transparent data transmission
- Redundant Gigabit Turbo Ring and Turbo Chain (recovery time < 50 ms @ 250 switches), RSTP/STP, and MSTP for network redundancy
- IGMP snooping and GMRP for filtering multicast traffic
- IEEE 802.1Q VLAN and GVRP protocol to ease network planning
- QoS (IEEE 802.1p/1Q and TOS/DiffServ) to increase determinism
- Port Trunking for optimum bandwidth utilization
- TACACS+, SNMPv3, IEEE 802.1X, HTTPS, and SSH to enhance network security
- Access control lists (ACL) increase the flexibility and security of network management (IKS-G6824A series)
- SNMPv1/v2c/v3 for different levels of network management
- RMON for efficient network monitoring and proactive capability
- Bandwidth management prevents unpredictable network status
- Lock port function for blocking unauthorized access based on MAC address
- Port mirroring for online debugging
- Automatic warning by exception through e-mail, relay output
- Digital inputs for integrating sensors and alarms with IP networks
- Redundant, dual AC power inputs

Specifications

Technology

Standards:

- IEEE 802.3 for 10BaseT
- IEEE 802.3u for 100BaseT(X) and 100BaseFX
- IEEE 802.3ab for 1000BaseT(X)
- IEEE 802.3z for 1000BaseSX/LX/LHX/ZX
- IEEE 802.3x for Flow Control
- IEEE 802.1D-2004 for Spanning Tree Protocol
- IEEE 802.1w for Rapid Spanning Tree Protocol
- IEEE 802.1s for Multiple Spanning Tree Protocol

- IEEE 802.1Q for VLAN Tagging
- IEEE 802.1p for Class of Service
- IEEE 802.1X for Authentication
- IEEE 802.3ad for Port Trunk with LACP
- Protocols:** IGMPv1/v2/v3, GMRP, GVRP, SNMPv1/v2c/v3, DHCP Server/Client, BootP, TFTP, SNTP, SMTP, RARP, RMON, HTTP, HTTPS, Telnet, Syslog, DHCP Option 66/67/82, SSH, LLDP, IEEE 1588 PTP V2, EtherNet/IP, Modbus/TCP, SNMP Inform, NTP Server/Client, IPv6 (IKS-G6524A series)

Layer 3 Switching: Static routing, RIP V1/V2, OSPF, DVMRP, PIM-DM, PIM-SM, PIM-SSM (IKS-G6824A series)
Layer 3 Switching Redundancy: VRRP (IKS-G6824A series)
MIB: MIB-II, Ethernet-like MIB, P-BRIDGE MIB, Q-BRIDGE MIB, Bridge MIB, RSTP MIB, RMON MIB Groups 1, 2, 3, 9
Flow Control: IEEE 802.3x flow control, back pressure flow control

Switch Properties

Priority Queues: 8
Max. Number of Available VLANs: 256
VLAN ID Range: VID 1 to 4094
IGMP Groups: 4096
MAC Table Size: 16 K
Packet Buffer Size: 12 Mbit
DRAM Size: 128 MB
Flash Size: 16 MB
Jumbo Frame Size: 9.6 KB
Switching Fabric Capacity: 48 Gbps
Forwarding Rate: 35.7 Mpps (packets per second)

Interface

Gigabit Ethernet: 10/100/1000BaseT(X) or 100/1000BaseSFP slot
Console Port: USB-serial console (Type B connector)
Storage Port: USB storage (Type A connector for ABC-02-USB)
LED Indicators: STATE, PWR1, PWR2, FAULT, MSTR/HEAD, CPLR/ TAIL
Alarm Contact: 1 relay output with current carrying capacity of 2 A @ 30 VDC
Digital Inputs: 1 input with the same ground, but electrically isolated from the electronics.
 • +13 to +30V for state “1”
 • -30 to +1V for state “0”
 • Max. input current: 8 mA

Power Requirements

Input Voltage: 110/220 VAC (85 to 264 VAC)
Input Current: Max. 0.79/0.44 A @ 110/220 VAC

Overload Current Protection: Present
Reverse Polarity Protection: Present

Physical Characteristics

Housing: IP30 protection
Dimensions: 440 x 44 x 386.9 mm (17.32 x 1.73 x 15.23 in)
Weight: 5.1 kg
Installation: 19” rack mounting

Environmental Limits

Operating Temperature:
 Standard Models: -10 to 60°C (14 to 140°F)
 Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Storage Temperature: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)

Standards and Certifications

Safety: UL 60950-1, EN 60950-1
EMI: FCC Part 15 Subpart B Class A, EN 55022 Class A
EMS:
 EN 61000-4-2 (ESD) Level 3, EN 61000-4-3 (RS) Level 3,
 EN 61000-4-4 (EFT) Level 3, EN 61000-4-5 (Surge) Level 3,
 EN 61000-4-6 (CS) Level 3, EN 61000-4-8, EN 61000-4-11
Rail Traffic: EN 50121-4
Shock: IEC 60068-2-27
Freefall: IEC 60068-2-32
Vibration: IEC 60068-2-6

Note: Please check Moxa’s website for the most up-to-date certification status.

MTBF (mean time between failures)

Time:
 IKS-G6524A: 282,390 hrs
 IKS-G6824A: 280,035 hrs

Database: Telcordia (Bellcore), GB

Warranty

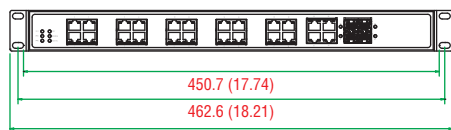
Warranty Period: 5 years
Details: See www.moxa.com/warranty

Dimensions

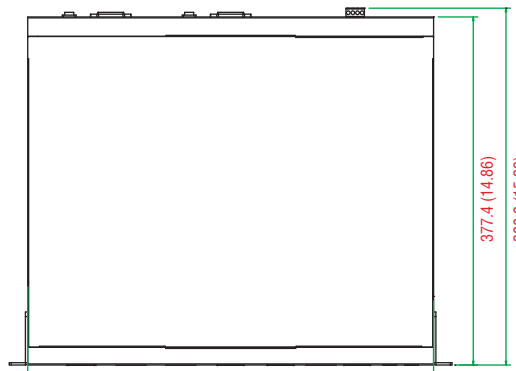
Unit: mm (inch)



Rear View



Front View



Top View



Side View

Ordering Information

Available Models		Port Interface			Power Supply	
Standard Temperature (-10 to 60°C)	Wide Temperature (-40 to 75°C)	Gigabit Ethernet			Isolated Power Supply 1	Isolated Power Supply 2
		10/100/1000 BaseT(X)	100/1000 BaseSFP*	Combo Port, 10/100/1000 BaseT(X) or 100/1000 BaseSFP*	HV: 85 to 264 VAC	HV: 85 to 264 VAC
IKS-G6524A Series Layer 2 Switches						
IKS-G6524A-4GTXSFP-HV-HV	IKS-G6524A-4GTXSFP-HV-HV-T	20	–	4	1	1
IKS-G6524A-8GSFP-4GTXSFP-HV-HV	IKS-G6524A-8GSFP-4GTXSFP-HV-HV-T	12	8	4	1	1
IKS-G6524A-20GSFP-4GTXSFP-HV-HV	IKS-G6524A-20GSFP-4GTXSFP-HV-HV-T	–	20	4	1	1
IKS-G6824A Series Layer 3 Switches						
IKS-G6824A-4GTXSFP-HV-HV	IKS-G6824A-4GTXSFP-HV-HV-T	20	–	4	1	1
IKS-G6824A-8GSFP-4GTXSFP-HV-HV	IKS-G6824A-8GSFP-4GTXSFP-HV-HV-T	12	8	4	1	1
IKS-G6824A-20GSFP-4GTXSFP-HV-HV	IKS-G6824A-20GSFP-4GTXSFP-HV-HV-T	–	20	4	1	1

*The IKS-G6524A/G6824A series supports 100/1000BaseSFP slots. See SFP-1G, SFP-1G Copper, and SFP-1FE datasheets for SFP module product information.

Optional Accessories (can be purchased separately)

MXview: Moxa industrial network management software with 50, 100, 250, 500, 1000, or 2000 nodes

EDS-SNMP OPC Server Pro: OPC server software that works with all SNMP devices

ABC-02-USB: Configuration backup and restoration tool for managed Ethernet switches, 0 to 60°C operating temperature

Power Cords: See Appendix A for details

Package Checklist

- IKS-G6524A or IKS-G6824A switch
- USB cable (Type A male to Type B male)
- 2 power cords (US type x 1, EU type x 1)
- Protective caps for unused ports
- 2 rackmount ears
- Documentation and software CD
- Hardware installation guide (printed)
- Warranty card