

# IKS-6726A Series

## 24+2G-port modular managed Ethernet switches



### Features and Benefits

- 2 Gigabit plus 24 Fast Ethernet ports for copper and fiber
- Turbo Ring and Turbo Chain (recovery time < 20 ms @ 250 switches), and STP/RSTP/MSTP for network redundancy
- Isolated redundant power inputs with universal 24 VDC, 48 VDC, or 110/220 VDC/VAC power supply range
- Modular design lets you choose from a variety of media combinations
- -40 to 75°C operating temperature range
- Supports MXstudio for easy, visualized industrial network management
- V-ON™ ensures millisecond-level multicast data and video network recovery

### Certifications



## Introduction

The IKS-6726A Series is designed to meet the rigorous demands of mission-critical applications for industry and business, such as traffic control systems and maritime applications. The IKS-6726A's Gigabit and fast Ethernet backbone, redundant ring, and 24/48 VDC or 110/220 VAC dual isolated redundant power supplies increase the reliability of your communications and save on cabling and wiring costs.

The modular design of the IKS-6726A also makes network planning easy, and allows greater flexibility by letting you install up to 2 Gigabit ports and 24 fast Ethernet ports.

### Additional Features and Benefits

- Command line interface (CLI) for quickly configuring major managed functions
- DHCP Option 82 for IP address assignment with different policies
- Supports EtherNet/IP, PROFINET, and Modbus TCP protocols for device management and monitoring
- IGMP snooping and GMRP for filtering multicast traffic
- Port-based VLAN, IEEE 802.1Q VLAN, and GVRP to ease network planning
- QoS (IEEE 802.1p/1Q and TOS/DiffServ) to increase determinism
- IEEE 802.3ad, LACP for optimum bandwidth utilization
- Line-swap fast recovery
- TACACS+, IEEE 802.1X, SNMPv3, HTTPS, and SSH to enhance network security
- SNMPv1/v2c/v3 for different levels of network management
- RMON for proactive and efficient network monitoring
- Bandwidth management prevents unpredictable network status with "Lock port" to restrict access to authorized MAC addresses
- Port mirroring for online debugging
- Automatic warning by exception through email and relay output
- Automatic recovery of connected device's IP addresses
- Configurable by web browser, Telnet/serial console, CLI, Windows utility, and ABC-02-USB automatic backup configurator

## Specifications

### Input/Output Interface

Alarm Contact Channels	1 relay output with current carrying capacity of 1 A @ 24 VDC
<b>Ethernet Interface</b>	
10/100BaseT(X) Ports (RJ45 connector)	8
Combo Ports (10/100/1000BaseT(X) or 100/1000BaseSFP)	2

Module	2 modular slots for any 8-port or 6-port Interface Modules with 10/100BaseT(X), 100BaseFX (SC/ST connector), or 100Base SFP <sup>1</sup>
Standards	IEEE 802.1D-2004 for Spanning Tree Protocol IEEE 802.1p for Class of Service IEEE 802.1Q for VLAN Tagging IEEE 802.1s for Multiple Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1X for authentication IEEE 802.3 for 10BaseT IEEE 802.3ab for 1000BaseT(X) IEEE 802.3ad for Port Trunk with LACP IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3x for flow control IEEE 802.3z for 1000BaseSX/LX/LHX/ZX

#### Ethernet Software Features

Management	Back Pressure Flow Control, BOOTP, DDM, DHCP Option 66/67/82, DHCP Server/Client, Flow control, IPv4/IPv6, LLDP, Port Mirror, RARP, RMON, SMTP, SNMP Inform, SNMPv1/v2c/v3, Syslog, Telnet, TFTP
Filter	802.1Q, GMRP, GVRP, IGMP v1/v2/v3
Redundancy Protocols	Link Aggregation, MSTP, RSTP, STP, Turbo Chain, Turbo Ring v1/v2, V-ON
Security	Access control list, Broadcast storm protection, HTTPS/SSL, MAB authentication, NTP authentication, Port Lock, RADIUS, SSH, TACACS+
Time Management	SNTP
Industrial Protocols	EtherNet/IP, Modbus TCP, PROFINET
MIB	Ethernet-like MIB, MIB-II, P-BRIDGE MIB, Q-BRIDGE MIB, RMON MIB Groups 1, 2, 3, 9, RSTP MIB

#### Switch Properties

IGMP Groups	2048
Jumbo Frame Size	9.6 KB
MAC Table Size	16 K
Max. No. of VLANs	64
Packet Buffer Size	12 Mbits
Priority Queues	4
VLAN ID Range	VID 1 to 4094

#### USB Interface

Storage Port	USB Type A
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#### Serial Interface

Console Port	USB-serial console (Type B connector)
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1. See the IM-6700A datasheet for Fast Ethernet module product information.

## Power Parameters

Input Voltage	IKS-6726A-2GTXSFP-24-T: 24 VDC IKS-6726A-2GTXSFP-24-24-T: 24 VDC (redundant dual inputs) IKS-6726A-2GTXSFP-48-T: 48 VDC IKS-6726A-2GTXSFP-48-48-T: 48 VDC (redundant dual inputs) IKS-6726A-2GTXSFP-HV-T: 110/220 VAC IKS-6726A-2GTXSFP-HV-HV-T: 110/220 VAC (redundant dual inputs)
Operating Voltage	IKS-6726A-2GTXSFP-HV-T: 85 to 264 VAC IKS-6726A-2GTXSFP-HV-HV-T: 85 to 264 VAC IKS-6726A-2GTXSFP-24-T: 18 to 36 VDC IKS-6726A-2GTXSFP-24-24-T: 18 to 36 VDC IKS-6726A-2GTXSFP-48-T: 36 to 72 VDC IKS-6726A-2GTXSFP-48-48-T: 36 to 72 VDC
Overload Current Protection	Supported
Reverse Polarity Protection	Supported
Input Current	IKS-6726A-2GTXSFP-24-T/2GTXSFP-24-24-T: 0.36 A @ 24 VDC IKS-6726A-2GTXSFP-48-T/2GTXSFP-48-48-T: 0.19 A @ 48 VDC IKS-6726A-2GTXSFP-HV-T/2GTXSFP-HV-HV-T: 0.28/0.14 A @ 110/220 VAC

## Physical Characteristics

IP Rating	IP30
Dimensions	440 x 44 x 280 mm (17.32 x 1.37 x 11.02 in)
Weight	4100 g (9.05 lb)
Installation	Rack mounting

## Environmental Limits

Operating Temperature	-40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

## Standards and Certifications

Safety	EN 60950-1, UL 60950-1
EMC	EN 55032/24
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Railway	EN 50121-4
Maritime	ABS, DNV-GL, LR, NK
Freefall	IEC 60068-2-32
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6

## MTBF

Time	149,151 hrs
Standards	Telcordia (Bellcore), GB

## Warranty

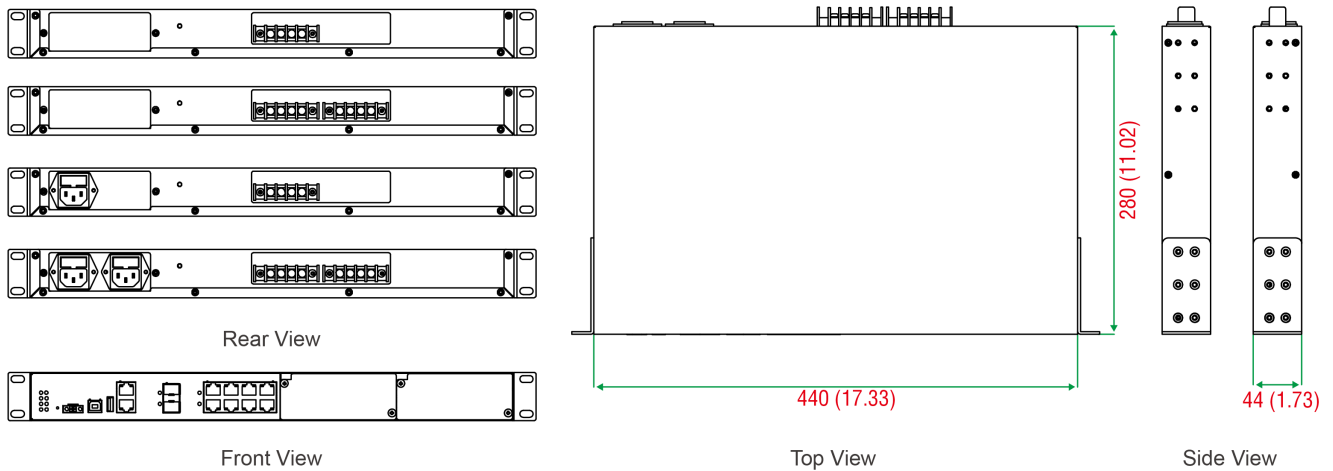
Warranty Period	5 years
Details	See <a href="http://www.moxa.com/warranty">www.moxa.com/warranty</a>

## Package Contents

Device	1 x IKS-6726A Series switch
Cable	1 x USB type A male to USB type B male
Installation Kit	2 x rack-mounting ear 6 x cap, plastic, for SFP slot
Power Supply	IKS-6726A-2GTXSFP-HV-T: 1 x power cord, EU type IKS-6726A-2GTXSFP-HV-HV-T: 2 x power cord, EU type IKS-6726A-2GTXSFP-HV-T: 1 x power cord, US type IKS-6726A-2GTXSFP-HV-HV-T: 2 x power cord, US type
Documentation	1 x document and software CD 1 x quick installation guide 1 x warranty card
Note	SFP modules and/or modules from the IM-6700A Module Series need to be purchased separately for use with this product.

## Dimensions

Unit: mm (inch)



## Ordering Information

Model Name	Combo Ports (10/100/1000BaseT(X) or 100/1000BaseSFP)	100BaseSFP Slots	10/100BaseT(X) Ports RJ45 Connector	100BaseFX Ports	Operating Temp.	Input Voltage	Redundant Dual Input
IKS-6726A-2GTXSFP-HV-T	2	Up to 18	Up to 24	Up to 12	-45 to 75°C	110/220 VAC power supply	-
IKS-6726A-2GTXSFP-HV-HV-T	2	Up to 18	Up to 24	Up to 12	-45 to 75°C	110/220 VAC power supply	✓
IKS-6726A-2GTXSFP-24-T	2	Up to 18	Up to 24	Up to 12	-45 to 75°C	24 VDC power supply	-

Model Name	Combo Ports (10/100/1000BaseT(X) or 100/1000BaseSFP)	100BaseSFP Slots	10/100BaseT(X) Ports RJ45 Connector	100BaseFX Ports	Operating Temp.	Input Voltage	Redundant Dual Input
IKS-6726A- 2GTXSFP-24-24-T	2	Up to 18	Up to 24	Up to 12	-45 to 75°C	24 VDC power supply	✓
IKS-6726A- 2GTXSFP-48-T	2	Up to 18	Up to 24	Up to 12	-45 to 75°C	48 VDC power supply	–
IKS-6726A- 2GTXSFP-48-48-T	2	Up to 18	Up to 24	Up to 12	-45 to 75°C	48 VDC power supply	✓

## Accessories (sold separately)

### IM-6700A Module Series

IM-6700A-2MSC4TX	Fast Ethernet module with 2 multi-mode 100BaseFX ports with SC connectors and 4 10/100BaseT(X) ports
IM-6700A-2MST4TX	Fast Ethernet module with 2 multi-mode 100BaseFX ports with ST connectors and 4 10/100BaseT(X) ports
IM-6700A-2SSC4TX	Fast Ethernet module with 2 single-mode 100BaseFX ports with SC connectors and 4 10/100BaseT(X) ports
IM-6700A-4MSC2TX	Fast Ethernet module with 4 multi-mode 100BaseFX ports with SC connectors and 2 10/100BaseT(X) ports
IM-6700A-4MST2TX	Fast Ethernet module with 4 multi-mode 100BaseFX ports with ST connectors and 2 10/100BaseT(X) ports
IM-6700A-4SSC2TX	Fast Ethernet module with 4 single-mode 100BaseFX ports with SC connectors and 2 10/100BaseT(X) ports
IM-6700A-6MSC	Fast Ethernet module with 6 multi-mode 100BaseFX ports with SC connectors
IM-6700A-6MST	Fast Ethernet module with 6 multi-mode 100BaseFX ports with ST connectors
IM-6700A-6SSC	Fast Ethernet module with 6 single-mode 100BaseFX ports with SC connectors
IM-6700A-8PoE	Fast Ethernet PoE+ module with 8 100BaseT(X) PoE/PoE+ ports (for IKS-6728A-8PoE Series only)
IM-6700A-8SFP	Fast Ethernet module with 8 100BaseSFP slots
IM-6700A-8TX	Fast Ethernet module with 8 10/100T(X) ports

### Storage Kits

ABC-02-USB	Configuration backup and restoration tool, firmware upgrade, and log file storage tool for managed Ethernet switches and routers, 0 to 60°C operating temperature
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### SFP Modules

SFP-1FELLC-T	SFP module with 1 100Base single-mode with LC connector for 80 km transmission, -40 to 85°C operating temperature
SFP-1FEMLC-T	SFP module with 1 100Base multi-mode with LC connector for 4 km transmission, -40 to 85°C operating temperature
SFP-1FESLC-T	SFP module with 1 100Base single-mode with LC connector for 40 km transmission, -40 to 85°C operating temperature
SFP-1G10ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature
SFP-1G10ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature
SFP-1G10BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature
SFP-1G10BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature
SFP-1G20ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature

SFP-1G20ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature
SFP-1G20BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature
SFP-1G20BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature
SFP-1G40ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature
SFP-1G40ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature
SFP-1G40BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature
SFP-1G40BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature
SFP-1GEZXLC	SFP module with 1 1000BaseEZ port with LC connector for 110 km transmission, 0 to 60°C operating temperature
SFP-1GEZXLC-120	SFP module with 1 1000BaseEZ port with LC connector for 120 km transmission, 0 to 60°C operating temperature
SFP-1GLHLC	SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, 0 to 60°C operating temperature
SFP-1GLHLC-T	SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, -40 to 85°C operating temperature
SFP-1GLHXLC	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, 0 to 60°C operating temperature
SFP-1GLHXLC-T	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, -40 to 85°C operating temperature
SFP-1GLSXLC	SFP module with 1 1000BaseLSX port with LC connector for 500 m transmission, 0 to 60°C operating temperature
SFP-1GLSXLC-T	SFP module with 1 1000BaseLSX port with LC connector for 500 m transmission, -40 to 85°C operating temperature
SFP-1GLXLC	SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, 0 to 60°C operating temperature
SFP-1GLXLC-T	SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, -40 to 85°C operating temperature
SFP-1GSXLC	SFP module with 1 1000BaseSX port with LC connector for 300/550 m transmission, 0 to 60°C operating temperature
SFP-1GSXLC-T	SFP module with 1 1000BaseSX port with LC connector for 300/550 m transmission, -40 to 85°C operating temperature
SFP-1GZXLC	SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, 0 to 60°C operating temperature
SFP-1GZXLC-T	SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, -40 to 85°C operating temperature

#### Power Cords

PWC-C13AU-3B-183	Power cord with Australian (AU) plug, 1.83 m
PWC-C13CN-3B-183	Power cord with three-prong China (CN) plug, 1.83 m
PWC-C13EU-3B-183	Power cord with Continental Europe (EU) plug, 1.83 m
PWC-C13UK-3B-183	Power cord with United Kingdom (UK) plug, 1.83 m
PWC-C13US-3B-183	Power cord with United States (US) plug, 1.83 m
PWC-C7AU-2B-183	Power cord with Australian (AU) plug, 2.5A/250V, 1.83 m
PWC-C7EU-2B-183	Power cord with Continental Europe (EU) plug, 2.5A/250V, 1.83 m
PWC-C7UK-2B-183	Power cord with United Kingdom (UK) plug, 2.5A/250V, 1.83 m
PWC-C7US-2B-183	Power cord with United States (US) plug, 10A/125V, 1.83 m

## Software

MXview-50	Industrial network management software with a license for 50 nodes (by IP address)
MXview-100	Industrial network management software with a license for 100 nodes (by IP address)
MXview-250	Industrial network management software with a license for 250 nodes (by IP address)
MXview-500	Industrial network management software with a license for 500 nodes (by IP address)
MXview-1000	Industrial network management software with a license for 1000 nodes (by IP address)
MXview-2000	Industrial network management software with a license for 2000 nodes (by IP address)
MXview Upgrade-50	License expansion of MXview industrial network management software by 50 nodes (by IP address)

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