

IKS-6728Aシリーズ

24+4Gポートギガビットモジュール式マネージド・PoE+イーサネット・スイッチ



機能とメリット

- IEEE 802.3af/atに準拠した内蔵4PoE+ポート x 8 (IKS-6728A-8PoE)
- PoE+ポートあたり最大36 Wの出力 (IKS-6728A-8PoE)
- 過酷な屋外環境に対する1 kVのLANサージ保護
- 電源デバイスモード解析のためのPoE診断
- 4つの広帯域通信用ギガビットコンボポート
- -40~75°Cの動作温度範囲 (720 Wフルローディング)
- 簡単で視覚化された産業用ネットワーク管理を行うためのMXstudioに対応
- V-ON™により、ミリ秒レベルのマルチキャストデータとビデオネットワークの回復を確実に実現

認証



製品紹介

IKS-6728Aシリーズは、ビジネスおよび産業におけるミッションクリティカルなアプリケーションの厳しい要求を満たすように設計されています。IKS-6728AおよびIKS-6728A-8PoEには、最大24個の10/100BaseT(X)、またはPoE/PoE+、および4つのコンボギガビットイーサネットポートが付属しています。IKS-6728A-8PoEイーサネットスイッチは、標準モードでPoE+ポートあたり最大30 Wの電力を提供し、また、ワイパー/ヒーターを備えた耐候性IP監視カメラ、高性能無線アクセスポイント、および頑丈なIP電話のような大型産業用PoEデバイスで最大36 Wの高出力をサポートします。

IKS-6728A-8PoEイーサネットスイッチは、PoE+ポートとシステム電源用に48 VDC、システム電源用に110/220 VACの2種類の電源ソースに対応しています。また、これらのイーサネットスイッチは、STP/RSTP、Turbo Ring、Turbo Chain、PoE電力管理、PoEデバイス自動チェック、PoE電力スケジューリング、PoE診断、IGMP、VLAN、QoS、RMON、帯域幅管理、およびポートミラーリングを含む、さまざまな管理機能をサポートします。IKS-6728A-8PoEは、PoEシステムの途切れない信頼性を確保するために、3kVサージ保護を備え、過酷な屋外用途に特に設計されています。

その他の機能とメリット

- 先進的なPoE管理機能：PoE出力設定、PD障害チェック、PoEスケジューリング、およびPoE診断
- 主なマネージド機能をすばやく構成するためのコマンドラインインターフェース (CLI)
- 各ポリシーに応じてIPアドレスを割り当てるDHCP Option 82
- デバイスの管理および監視用のEtherNet/IP、PROFINET、およびModbus TCPプロトコルをサポート
- Turbo RingおよびTurbo Chain (リカバリ時間は250スイッチで20ミリ秒未満) をサポートし、STP/RSTP/MSTPでネットワーク冗長性を実現
- マルチキャストトラフィックをフィルタリングするIGMPスヌーピングおよびGMRP
- ポートベースのVLAN、IEEE 802.1Q VLAN、GVRPでネットワークプランニングを簡素化
- QoS (IEEE 802.1p/1QおよびTOS/DiffServ)
- 最適な帯域幅利用のIEEE 802.3ad、LACP
- TACACS+、IEEE 802.1x、SNMPv3、HTTPS、およびSSHで、ネットワークセキュリティを強化
- 異なるレベルのネットワーク管理を実現するSNMPv1/v2c/v3
- プロアクティブで効率の高いネットワーク監視のためのRMON
- 帯域幅管理により、許可されたMACアドレスへのアクセスを制限する「ポートのロック」で、予期しないネットワークアクセスを防止
- オンラインデバッグ用のポートミラーリング
- メールとリレー出力を通じた例外検出による自動警告
- 接続されたデバイスのIPアドレスの自動復旧
- ラインスワップ高速リカバリ
- Webブラウザ、Telnet/シリアルコンソール、CLI、Windowsユーティリティ、ABC-02-USB自動バックアップコンフィギュレータによる設定が可能

仕様

Input/Output Interface

Alarm Contact Channels	1 relay output with current carrying capacity of 1 A @ 24 VDC
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Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	8
Combo Ports (10/100/1000BaseT(X) or 100/1000BaseSFP)	4
Module	2 modular slots for any 8-port or 6-port Interface Modules with 10/100BaseT(X), 100BaseFX (SC/ST connector), 100Base PoE/PoE+, or 100Base SFP ¹
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	NTP Server/Client, 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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1. See the IM-6700A datasheet for Fast Ethernet module product information.

Serial Interface

Console Port	USB-serial console (Type B connector)
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Power Parameters

Input Voltage	IKS-6728A-4GTXSFP-24-T: 24 VDC IKS-6728A-4GTXSFP-24-24-T: 24 VDC (redundant dual inputs) IKS-6728A-4GTXSFP-48-T: 48 VDC IKS-6728A-4GTXSFP-48-48-T: 48 VDC (redundant dual inputs) IKS-6728A-4GTXSFP-HV-T: 110/220 VAC IKS-6728A-4GTXSFP-HV-HV-T: 110/220 VAC (redundant dual inputs) IKS-6728A-8PoE-4GTXSFP-48-T: 48 VDC IKS-6728A-8PoE-4GTXSFP-48-48-T: 48 VDC (redundant dual inputs) IKS-6728A-8PoE-4GTXSFP-HV-T: 110/220 VAC IKS-6728A-8PoE-4GTXSFP-HV-HV-T: 110/220 VAC (redundant dual inputs)
Operating Voltage	IKS-6728A-4GTXSFP-HV-T: 85 to 264 VAC IKS-6728A-4GTXSFP-HV-HV-T: 85 to 264 VAC IKS-6728A-4GTXSFP-24-T: 18 to 36 VDC IKS-6728A-4GTXSFP-24-24-T: 18 to 36 VDC IKS-6728A-4GTXSFP-48-T: 36 to 72 VDC IKS-6728A-4GTXSFP-48-48-T: 36 to 72 VDC IKS-6728A-8PoE-4GTXSFP-48-T: 36 to 72 VDC IKS-6728A-8PoE-4GTXSFP-48-48-T: 36 to 72 VDC IKS-6728A-8PoE-4GTXSFP-HV-T: 85 to 264 VAC IKS-6728A-8PoE-4GTXSFP-HV-HV-T: 85 to 264 VAC
Overload Current Protection	Supported
Reverse Polarity Protection	Supported
Input Current	IKS-6728A-4GTXSFP-24-T/4GTXSFP-24-24-T: 0.36 A @ 24 VDC IKS-6728A-4GTXSFP-48-T/4GTXSFP-48-48-T: 0.19 A @ 48 VDC IKS-6728A-8PoE-4GTXSFP-48-T/8PoE-4GTXSFP-48-48-T: 0.53 A @ 48 VDC IKS-6728A-4GTXSFP-HV-T/4GTXSFP-HV-HV-T: 0.28/0.14 A @ 110/220 VAC IKS-6728A-8PoE-4GTXSFP-HV-T/8PoE-4GTXSFP-HV-HV-T: 0.33/0.24 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

Freefall	IEC 60068-2-32
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	IKS-6728A Series non-PoE models: ABS, CCS, DNV-GL, LR, NK
Safety	EN 60950-1, UL 60950-1
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6

MTBF

Time	120,731 hrs
Standards	Telcordia (Bellcore), GB

Warranty

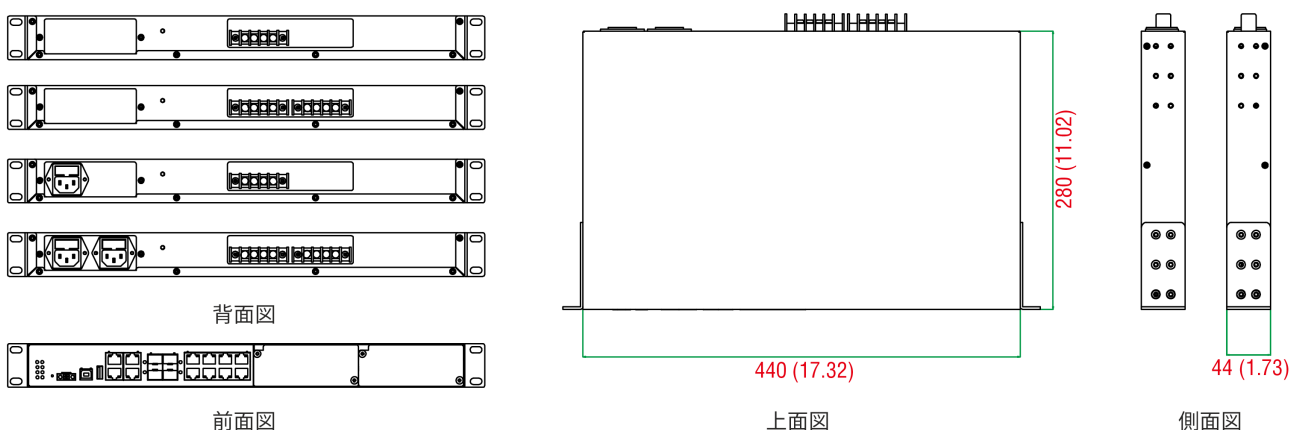
Warranty Period	5 years
Details	See www.moxa.com/jp/warranty

Package Contents

Device	1 x IKS-6728A Series switch
Cable	1 x USB type A male to USB type B male
Installation Kit	2 x rack-mounting ear 8 x cap, plastic, for SFP slot
Power Supply	IKS-6728A-4GTXSFP-HV-T: 1 x power cord, EU type IKS-6728A-4GTXSFP-HV-HV-T: 2 x power cord, EU type IKS-6728A-8PoE-4GTXSFP-HV-T: 1 x power cord, EU type IKS-6728A-8PoE-4GTXSFP-HV-HV-T: 2 x power cord, EU type IKS-6728A-4GTXSFP-HV-T: 1 x power cord, US type IKS-6728A-4GTXSFP-HV-HV-T: 2 x power cord, US type IKS-6728A-8PoE-4GTXSFP-HV-T: 1 x power cord, US type IKS-6728A-8PoE-4GTXSFP-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	1. If you want to turn on PoE, please add a 48 V external power supply. 2. 48 V external power supply, SFP modules and/or modules from the IM-6700A Module Series need to be purchased separately for use with this product.

寸法

単位：mm（インチ）



注文情報

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	Redundan t Dual Input	PoE Support
IKS-6728A-4GTXSFP-HV-T	4	Up to 18	Up to 24	Up to 12	-40 to 75°C	110/220 VAC power supply	-	-
IKS-6728A-4GTXSFP-HV-HV-T	4	Up to 18	Up to 24	Up to 12	-40 to 75°C	110/220 VAC power supply	P	-
IKS-6728A-4GTXSFP-24-T	4	Up to 18	Up to 24	Up to 12	-40 to 75°C	24 VDC power supply	-	-
IKS-6728A-4GTXSFP-24-24-T	4	Up to 18	Up to 24	Up to 12	-40 to 75°C	24 VDC power supply	P	-
IKS-6728A-4GTXSFP-48-T	4	Up to 18	Up to 24	Up to 12	-40 to 75°C	48 VDC power supply	-	-
IKS-6728A-4GTXSFP-48-48-T	4	Up to 18	Up to 24	Up to 12	-40 to 75°C	48 VDC power supply	P	-
IKS-6728A-8PoE-4GTXSFP-HV-T	4	Up to 18	Up to 24	Up to 12	-40 to 75°C	110/220 VAC power supply	-	Up to 24 PoE ports
IKS-6728A-8PoE-4GTXSFP-HV-HV-T	4	Up to 18	Up to 24	Up to 12	-40 to 75°C	110/220 VAC power supply	P	Up to 24 PoE ports
IKS-6728A-8PoE-4GTXSFP-48-T	4	Up to 18	Up to 24	Up to 12	-40 to 75°C	48 VDC power supply	-	Up to 24 PoE ports
IKS-6728A-8PoE-4GTXSFP-48-48-T	4	Up to 18	Up to 24	Up to 12	-40 to 75°C	48 VDC power supply	P	Up to 24 PoE ports

アクセサリ（別売）

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-1GEZXC	SFP module with 1 1000BaseEZXC port with LC connector for 110 km transmission, 0 to 60°C operating temperature
SFP-1GEZXC-120	SFP module with 1 1000BaseEZXC 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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