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Penang	60-4-537-9188

Thailand

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Mexico

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Mexico City	52-55-6275-2727

ADVANTECH

Enabling an Intelligent Planet

www.advantech.com

8600000461

Industrial Communication

Providing Interconnected Solutions for Enabling an Intelligent Planet

- Industrial Ethernet Switches
- Industrial Protocol Gateways
- Industrial Device Servers
- Industrial Cellular Routers
- Industrial Wireless Solutions
- Industrial Device Connectivity
- Industrial Fiber and PoE

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Industrial Communication in the IoT Era

Providing Interconnected Solutions for Advantech's Mission of Enabling an Intelligent Planet

In the age of Internet of Things (IoT), the trend in industrial communication for all devices, equipment, and machines to be able to connect and communicate with each other to increase productivity, efficiency, and scalability has become essential. The core mission of Advantech's iConnectivity Group is to offer the best-in-class industrial communication solutions including both wired and wireless technologies that can truly help users leverage the full potential of IoT in the most efficient and productive way.

Advantech 2017 World Ranking

- No.7 for Industrial Ethernet Infrastructure Market
- No. 3 for Router Market

(2017 IHS Markit)

Our Technologies

Intelligent Connectivity Software

Advantech intelligent connectivity software platform provides provisioning and management software, aiming at serving users a tailored management solution based on different user scenarios.

- WebAccess/DMP for provisioning and managing status of each routing device and application
- WebAccess/NMS for monitoring the interconnectivity status of the whole network system

Network Edge

Advantech's cellular routing solutions open up endless possibilities for Internet of Things. The Advantech's cellular routers support direct communication between the MQTT-enabled devices and the Cloud and their built-in Node-RED technology enables smart data processing for a fast monitoring dashboard development in Advantech's Cloud solution, WISE/PaaS management software.

- Support for inter-operation with global 3G/LTE coverage
- Cyber security protection by firewall, NAT, and VPN
- Intelligent gateways support LoRa, Mesh network for Industrial IoT

Wired & Wireless Network Infrastructure

Advatnech provides a comprehensive product portfolio to help users build a robust, secure and scalable wired or wireless networking infrastructure.

- Support various industrial Ethernet protocols, such as TCP/IP, Ethernet/IP, PROFINET, CC-link, ODVA, etc.
- Compliant with C1D2, ATEX, IECEx certifications for hazardous environments
- Cyber security protection within the network
- Layer 3 Routing Protocols: RIP, OSPF, and VRRP
- Advantech's patented IXM technology for rapid deployment, saving up to 90% of engineering time and resources

Protocol & Interface Conversion Solutions

Advantech offers numerous wired and wireless products to convert different legacy protocols and interfaces to modern networking systems to avoid a complete overhaul of existing equipment & devices, saving cost and avoiding software programming errors.

- Support various industrial Ethernet protocols including TCP/IP, Ethernet/IP, and PROFINET
- Surge protection and field isolation
- Connect to edge sensors via LoRa, MESH technologies
- Serial-to-Ethernet & USB-to-Serial Conversions

Table of Content

Industrial Communication

Seamless Data Connectivity from the Network Edge to the Core

Advantech leverages over 20 years of industry experience to develop industrial communication products that provide reliable wired and wireless communication solutions for mission-critical applications. These products include industrial Ethernet switches, industrial Fieldbus gateways, Modbus gateways, cellular IP gateways, cellular routers, wireless access points/clients, media converters, serial device servers, that are capable of securely transmitting critical and sensitive information, remotely monitoring and controlling networked devices, and delivering advanced communication capabilities for industrial applications.

Wireless Sensing Platforms

Wzzard Mesh Platform

Wireless Mesh I/O Sensors – Intelligent Sensing Platform

- Ultra low power consumption
- 802.15.4e SmartMesh IP technology
- Supports MQTT and JSON IoT protocols
- UL Class 1/Division 2 hazardous locations rating
- Rugged, IP66-rated, reinforced-fiber polyester PBT enclosure*

SmartSwarm 243 LoRa Private Gateway

WISE-6610 LoRaWAN Gateway

LoRa I/O Sensors Node and Gateway

- Low power consumption for solar and battery power applications
- Long-range, wide-area IoT gateway
- Rugged, IP67-rated, reinforced-fiber polyester PBT enclosure
- LoRa private protocol for closing system applications

Intelligent Gateway

SmartSwarm 351 Asset Integration Gateway

Seamlessly integrates data from legacy Modbus systems, devices, and sensors

- Protocol translation and Modbus and MQTT support
- Event triggering and data transmissions without duplication
- Data aggregation and reporting to reduce network traffic
- Authentication and encryption features for data security

LTE Routers & Gateways

SL30x Series

SmartStart Routers & Gateways

- LTE/UMTS/HSPA+/UMTS/HSDPA/GPRS/EDGE
- Wi-Fi (optional)
- 2 x SIM card holders
- Advanced security and networking features
- UL 60950-1 certification for hazardous locations

SR30x Series

SmartFlex Routers & Gateway

- LTE/UMTS/HSPA+/UMTS/HSDPA/GPRS/EDGE
- Wi-Fi (optional); GPS receiver (wired version not included)
- 2 x SIM card holders, 1 x MicroSD card holder
- PoE PD/PSE (optional)
- Advanced security and networking features

ST35x Series

SmartMotion Routers & Gateway

- Twin interdependent cellular modules for redundant reliability
- Wi-Fi (optional); GPS receiver (wired version not included)
- 4 x SIM card holders, 1 MicroSD card holder
- PoE PD/PSE (optional)
- Advanced security and networking features

Fieldbus Gateways

EKI-1242EIMS

Modbus RTU/TCP to EtherNet/IP Fieldbus Gateway

- Dual power input
- Integrate Modbus RTU/TCP and EtherNet/IP communication
- Designed for protocol extensibility and adaption
- Built-in real time diagnostic
- 'I' models support a wide operating temperature

EKI-1242PNMS

Modbus RTU/TCP to PROFINET Fieldbus Gateway

- Dual power input
- Integrate Modbus RTU/TCP and PROFINET communication
- Designed for protocol extensibility and adaption
- Built-in real time diagnostic
- 'I' models support a wide operating temperature

EKI-1242ECMS

Modbus RTU/TCP to EtherCAT Fieldbus Gateway

- Dual power input
- Integrate Modbus RTU/TCP and EtherCAT communication
- Designed for protocol extensibility and adaption
- Built-in real time diagnostic
- 'I' models support a wide operating temperature

Serial Device Servers

EKI-1526/EKI-1528
16/8-Port RS232/422/485 Rackmount Serial Device Server

- Connect up to 8/16-port RS-232/422/485 devices directly to TCP/IP networks
- High-speed baud rates (50 bps ~ 976.5 Kbps) for high volume transmissions
- VCOM, TCP server, TCP Client, UDP, and RFC2217 operating modes

EKI-1528-DR
8-Port RS232/422/485 DIN Rail Serial Device Server

- 2 x 10/100 Mbps Ethernet port for LAN redundancy
- VCOM, TCP server, TCP Client, UDP and RFC2217 operating modes
- I models support a wide operating temperature; CI models support isolation and wide operating temperature

EKI-1520 Series
1/2/4-Port RS232/422/485 Serial Device Server

- 2 x 10/100 Mbps Ethernet ports for LAN redundancy
- VCOM, TCP server, TCP Client, UDP and RFC2217 operating modes
- I models support a wide operating temperature; CI models support isolation and wide operating temperature

L2 Managed Switches

EKI-7428G-4CI
Industrial Rackmount Managed Switch

- IXM for rapid deployment
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standard MIB
- Wide operating temperature (-40 ~ 70 °C)
- 12 ~ 48 V_{DC} dual power inputs
- EN50121-4 and NEMA TS2 certified

EKI-7700 Series
Industrial Managed Switch

- Gigabit / FastEthernet ports + Gigabit Copper/SFP combo ports models available
- IXM function enables fast deployment
- IP30-rated chassis design
- EN50121-4 and NEMA TS2 certified

EKI-5500/5600-EI/PN Series
Managed Switch with EtherNet/IP or PROFINET Protocol Support

- UL508, Class 1 Division 2, ATEX certified
- Compatible with SIMATIC step 7 and TIA portal (PROFINET compatible models)
- PROFITNET models support Media Redundancy Protocol (MRP)
- Faceplate compatible with Rockwell FactoryTalk® View (Ethernet/IP compatible models)
- Easy and fast deployment from Advantech IXM technology

Modbus Gateway

EKI-1220 Series
1/2/4-Port Modbus Gateway

- Supports redundancy enhanced Modbus ID
- Integration of Modbus TCP and Modbus RTU/ ASCII networks
- Wide operation temperature and isolation (optional)

Modbus Router

EKI-1220 Series
1/2/4-Port Modbus Gateway/Router

- Secure remote access in VPN tunnel
- Integrated Stateful Firewall for protection from intrusions
- Support redundancy enhanced Modbus ID
- Integration of Modbus TCP and Modbus RTU/ASCII network
- Wide operation temperature and isolation (optional)

WLAN Device Servers

EKI-1361/EKI-1362
1/2-Port RS232/422/485 to 802.11 a/b/g/n WLAN Serial/Modbus Device Server

- 2 x 10/100 Mbps Ethernet ports for LAN redundancy
- VCOM, TCP server, TCP Client, UDP and RFC2217 operating mode
- Support dual band 2.4G/5G selective
- Wide operation temperature and isolation (optional)

Unmanaged Switches

EKI-5000 Series
Unmanaged Switch

- IECEx, ATEX, CID2 certifications for hazardous environments
- Monitoring utility
- Port-based QoS for deterministic data transmissions
- Loop detection
- Dual power inputs

EKI-2000 Series
Unmanaged Switch

- 5 Fast Ethernet ports with Slim type (W 25 x H 80 x D 84 mm)
- Supports redundant power input plus one DC power jack
- Supports wide operating temperatures from -40 to 75 °C
- IP40-rated chassis design
- AC power design (EKI-2428G-4FA)

EKI-2525LI
Unmanaged Switch

- 5 Fast Ethernet ports with Slim type (W 25 x H 80 x D 84 mm)
- Supports redundant power input plus one DC power jack
- Supports wide operating temperatures from -40 to 75 °C
- IP40-rated chassis design

Industrial Wireless AP/ Clients

EKI-6331AN/ 6332GN
802.11N WiFi AP/ Bridge/ Client

- Compliant with IEEE 802.11 a/n and 802.11 b/g/n
- High output power
- Fast roaming
- IP55 rated for waterproof

EKI-6333AC
802.11N Wi-Fi AP/Bridge

- Compliant with IEEE 802.11 a/b/g/n/ac
- DIN-Rail mounting or EN50155 certified
- Support selective dual band 2.4Ghz and 5Ghz

L3 Switches

EKI-9700/ 9600 Series
Industrial Layer 3 Managed Switch

- Static routing/NAT (EKI-9612G, EKI-9628G)
- Static routing, RIP v1/v2, OSPF v2, VRRP (EKI-9728G)
- Supports up to 4 x 10GbE fiber ports (EKI-9728G)
- Wide operating temperature

Network Management System

WebAccess/NMS
Network Management System

- Cross-browser compatible
- Online Google Maps and offline OpenStreetMap support
- Supports all Advantech Ethernet-based products
- Automatically generated topology
- PoE, ring, wireless, cellular connection indication

PoE Switches

EKI-7428G-4CPI
Industrial Rackmount Managed Switch with 24G PoE, 4G Combo Ports

- 24 x IEEE 802.3 af/at PoE Gigabit ports, 4 x Gigabit copper/SFP combo ports
- IXM for rapid deployment
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standard MIB
- Wide operating temperature (-40 ~ 70 °C)
- EN50121-4 and NEMA TS2 certified

EKI-7700 Series
Fully Managed PoE/PoE+ Industrial Ethernet Switch

- X-Ring Pro redundancy (recovery time < 20 ms)
- IXM for rapid deployment
- Wide operating temperature (-40 ~ 75 °C)
- EN50121-4 and NEMA TS2 certified

EKI-5000/2000 Series
Unmanaged PoE/PoE+ Industrial Ethernet Switch

- Compact size
- Redundant power design
- Wide operating temperature (-40 ~ 75 °C)
- IP30-rated chassis design
- IECEx, ATEX, CID2 certifications for hazardous environments (EKI-5000 Series)

IEC61850-3 Switches

EKI-9228 Series
Industrial Rackmount Managed Switch with IEC-61850 Certification

- 16 x Gigabit RJ-45 ports, 4 x SFP ports, 8 x Gigabit combo ports
- SFP socket for easy and flexible fiber expansion
- Gigabit X-Ring redundancy (ultra-high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D), MSTP
- Dual wide-range AC/DC power input

EKI-9226G Series
26-port Rackmount Managed Switch w/ high fiber ports

- 20 x Gigabit SFP ports + 6 x Gigabit x RJ-45 ports
- Security: 802.1x , HTTPS,SSH and SNMPv3
- -40 ~ 85°C wide-range operating temperature
- Dual Power input and 2 relay output

EKI-9213
DIN-Rail Managed Switch support HSR/ PRP

- 8 x 10/100/1000 Mbps RJ-45 + 3 x 100 Mbps SFP + 2 x 10/100 Mbps HSR/PRP ports
- IEC 62439-3 Clause 4 (PRP) and Clause 5 (HSR) compliant
- -40 ~ 85°C wide-range operating temperature
- IEC 61850 certificate

EN50155 Switches

EKI-9528/9520 Series
28 / 20 port - EN50155 Managed Switch support PoE

- EKI-9520: 16 x M12 D-coded/ X-coded PoE ports + 4 x M12 X-coded w/ bypass.
- EKI-9528: 16 x M12 D-coded/ X-coded PoE ports + 4 x M12 X-coded w/ bypass + 8 x M12 D-coded/ X-coded ports
- M12 with IP67 protection
- Wide operating temperature meet EN501055 Tx (-40 ~ 70 °C)
- Wide Range Power Input (24/36/48/72/96/110 VDC)

EKI-9516/9512/9510/9508 Series
16/12/10/8 EN50155 Managed Switch support PoE

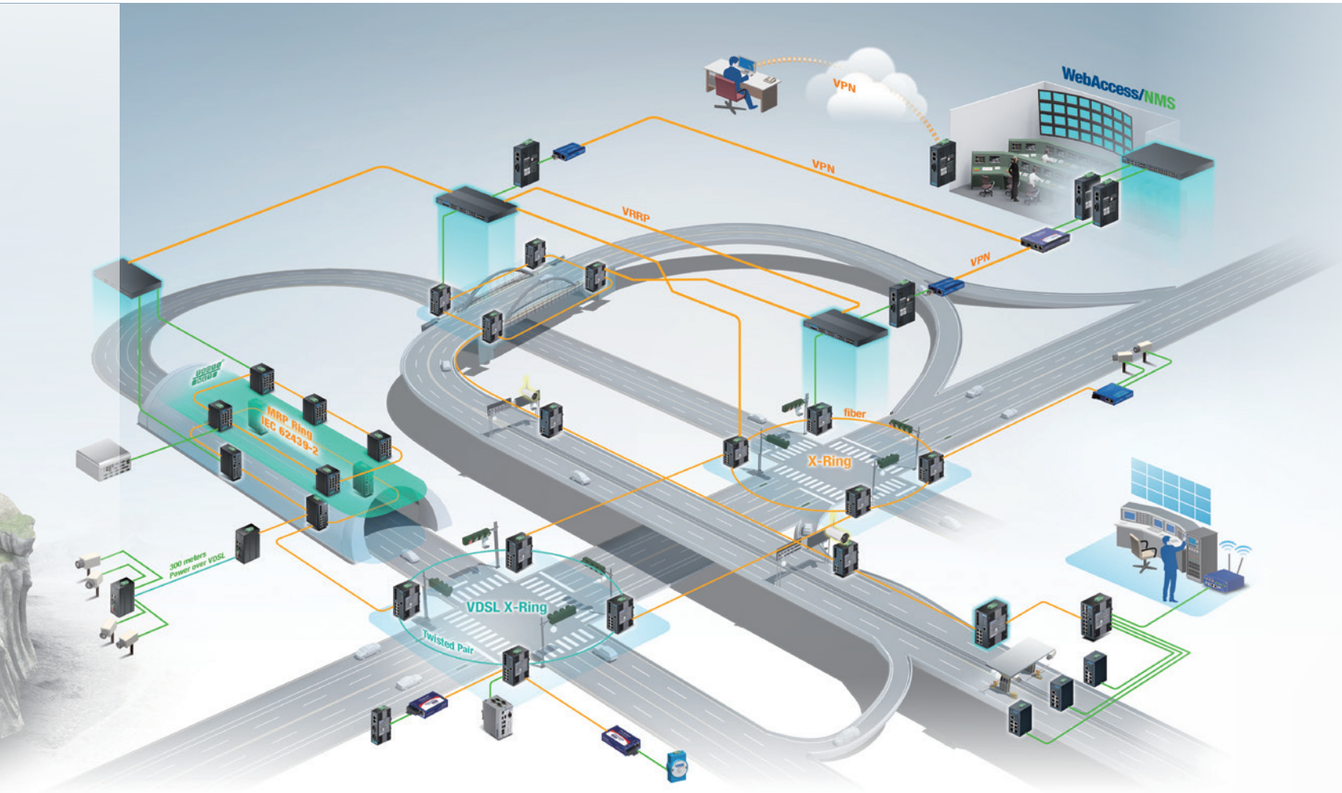
- IEEE 802.3af/802.3at per port with system PoE power Management (PoE models)
- Compact size for space-concerned environment (EKI-9510/9508)
- Wide operating temperature meet EN501055 Tx (-40 ~ 70 °C)
- M12 with IP67 protection (EKI-9516/9512)

EKI-9512E-4EETB
EN50155 train router for rolling stock backbone

- 8 x 10/100 Mbps M12 D-coded + 4 x 10/100 Mbps M12 D-coded w/bypass
- TTDP (IEC-61375-2-5)
- Wide Range Power Input (24/36/48/72/96/110 VDC)

Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) aim at providing communications and technology that allow safe, convenient, comfortable, efficient, and environmentally friendly travel for all commuters. Many cities worldwide are in the midst of improving their transportation system infrastructures, and Advantech is there to provide a helping hand, offering advanced product solutions for the freeway market segment, including freeway entrance controls, traffic information systems, tunnel monitoring systems, electronic toll collection systems, vehicle count & classification, and IP surveillance.



Control Room

Transportation systems include control room systems aim at providing communication, security, surveillance, and technology for safe, convenient and comfortable travel for all commuters. Many cities worldwide are in the midst of improving their control room systems, and Advantech is there to provide a helping hand, offering advanced industrial communication product solutions with flexible and high-performance, trusted monitoring system WebAccess/NMS to make ideal solutions for system integrators.

Tunnel Management System

Distributed network control architectures are used for Tunnel Management Systems to provide traffic guidance, CCTV, fire alarm, and ventilating systems while collecting several sensor data, such as vehicle detectors, COVI, visibility, and wind sensors. Compact and high performance Ethernet switches provide redundant network connections.

Highway Security and Monitoring

Transportation authorities are searching for advanced solutions, aiming at enhancement of highway security and monitoring as the awareness of road security rises. A non-stop network communication solution is required to cover the heave need of data transmission from numbers of video, audio and sensing devices located in multiple road sites to the control room.

City Traffic Management

Advantech offers total solutions for Real-time Traffic Information Display Systems to accommodate difference needs. We offer Ethernet switches, serial device servers, and controllers. The system quickly and reliably sends urban traffic information to the control center for real-time city traffic management.

Bus Rapid Transit (BRT)

A mobile onboard computing and back-office communications system is applied in a Bus Rapid Transit (BRT) system application. This not only offers a rapid, punctual, secure and convenient service to passengers, but it also improves the operational efficiency for fleet management via real-time communication. Advantech's eMark certified in-vehicle solutions ensure the realization of the BRT system. eMark certified EKI-5000 Series are used to ensure the BRT provides secure data transmission for signage displays to deliver instant information to passengers and for the surveillance cameras to enhance security by recording interior views of the passenger compartment.

Electronic Toll Collection (ETC)

In the evolution from manual to electronic toll collection, an intelligent and high performance system was required to decrease workforce requirements as well as assuring traffic flows on the highway. Its inherent robustness assures stable roadside functionality. Our communication solutions ensure nonstop data transmission and play a critical role in the system. The compact size, industrial grade mechanism design makes Advantech's communication products offered the best connectivity solution for this electronic toll collection application.

Comprehensive Industrial Networking Solutions for Intelligent Transportation Systems

NMS

WebAccess/NMS

WebAccess/NMS System
Network Management System

Industrial Routers

SmartFlex
LTE Industrial Router

SmartStart
LTE Industrial Router

Media Converters

MiniMc
Miniature Media Converters

Industrial Ethernet Switches

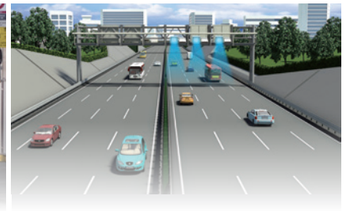
EKI-7700 Series
Industrial Managed
Ethernet Switch

EKI-7700 Series
Industrial Managed
PoE Switch

EKI-5000 Series
Unmanaged Ethernet Switch

E13 **EKI-5624P, EKI-5729P Series**
e-Mark certified unmanaged switch

Intelligent Transportation Systems

Control Room

Advantech EKI-9728G Industrial Rackmount L3 Managed Switch provides static and dynamic routing to connect data transmitted from the roadside to the control room and provide real time status updates and monitoring to ensure efficiency and safety.

Key Products

EKI-9728G
Industrial Rackmount L3 Managed Switch
- Static Routing
- Dynamic routing:VRRP, OSPF,RIP V1/V2
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standar MIB Security: 802.1x (Port-Based, MD5/TLS/TTLS/ PEAP Encryption),HTTPS,SSH and SNMPv3
- Dual power input and 2 relay output

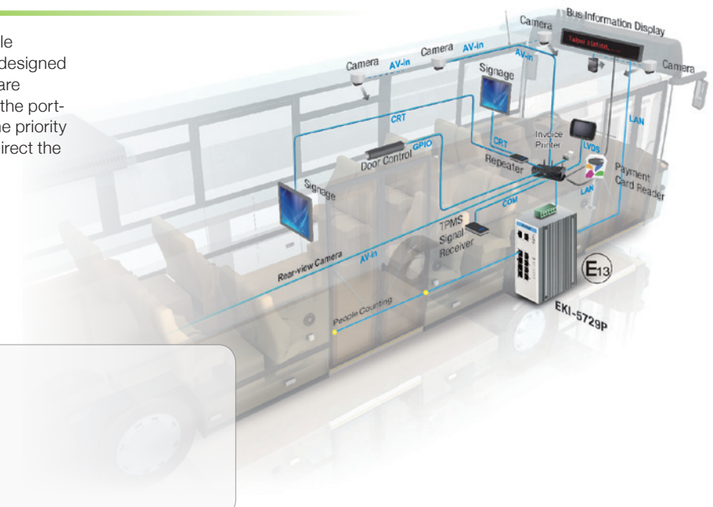
WebAccess/NMS System
Network Management System
- Cross-browser, cross-platform based on HTML5
- Google Maps and GPS location tracking integration
- Automatically discovers and diagrams network topology
- Support all Advantech IP-based devices & extension of 3 party devices

Bus Rapid Transit (BRT)

Advantech EKI-5729P/PI and EKI-5624P/PI from the Viewable Unmanaged Ethernet Switch series are eMark certified and designed for in-vehicle applications and surveillance. These switches are classified as power source equipment (PSE) and come with the port-based QoS for deterministic data transmissions that allow the priority ports to prioritize the traffic coming over those ports and redirect the less immediately necessary data over the remaining ports.

Why Advantech?

- eMark certified Ethernet Switch solution
- Remote control PoE function by SNMP

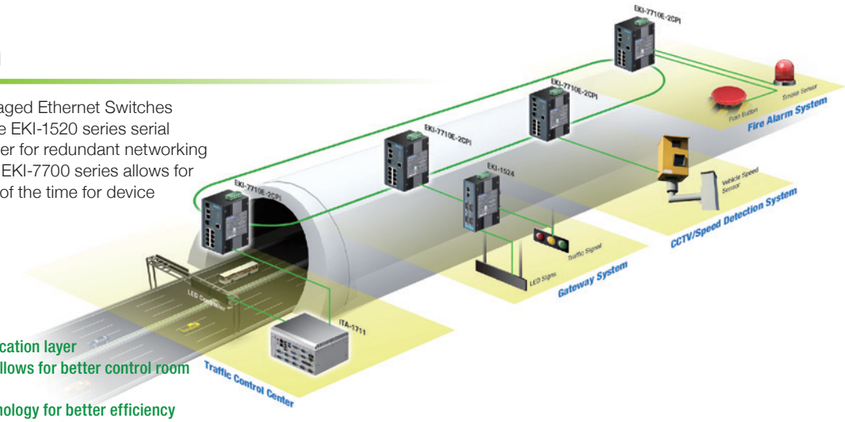


Key Products

EKI-5729P/PI, EKI-5624P/PI
Unmanaged PoE Switch
- EMS level 3 protection for extreme outdoor environments
- Port-based QoS for deterministic data transmission
- Jumbo Frame Support (Up to 9,216 Bytes)
- e-Mark certified for in-vehicle application

Tunnel Management System

Advantech EKI-7700 series Redundant Managed Ethernet Switches allow for continuous network operation, while EKI-1520 series serial device servers connect serial devices together for redundant networking solutions. The IXM technology embedded in EKI-7700 series allows for device fast deployment which reduces 90% of the time for device setting and maintenance.



Why Advantech?

- Advantech total solution for industrial communication layer
- Redundant Managed Ethernet Switch solution allows for better control room and network backbone systems
- EKI-7700 series with IXM fast deployment technology for better efficiency
- Wide operation temperature

Key Products

EKI-7710E-2CPI
Industrial Managed PoE Switch
- IXM function enables fast deployment
- Redundancy: X-Ring Pro (ultra high-speed recovery time < 20 ms)
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standard MIB, Private MIB
- EN50121-4, NEMA-TS2 certified
- Support PoE/PoE+

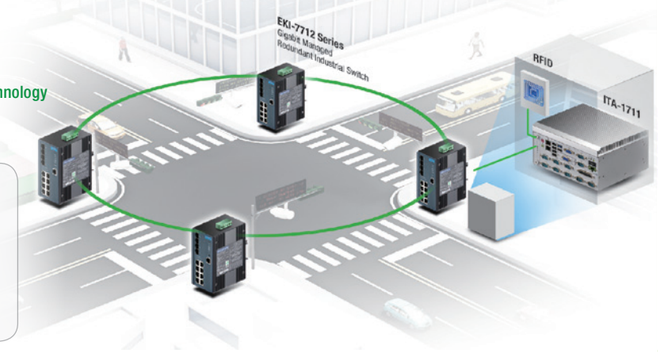
EKI-1524 Series
RS-232/422/485 Device Server
- Provides 10/100 Mbps Ethernet ports for LAN redundancy
- Provides COM port redirection (Virtual COM), TCP and UDP operation modes
- Built-in 15 KV ESD protection for all serial signals
- Wide temperature

City Traffic Management System

Advantech EKI-7700 series Redundant Managed PoE Ethernet Switches with X-Ring technology offer less than 20ms recovery time to ensure always an connected network for either surveillance or car speed monitoring systems to provide better and safer city traffic information sharing.

Why Advantech?

- Complete communication solution
- Redundant Managed Ethernet Switch solution with IXM fast deployment technology for better control room and network backbone systems.
- Wide operation temperature



Key Products

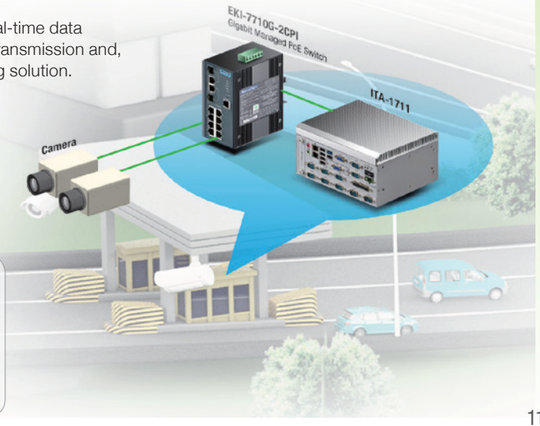
EKI-7712E Series
Gigabit Managed Redundant Industrial Switch
- IXM function enables fast deployment
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: X-Ring Pro (ultra high-speed recovery time < 20 ms)
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standard MIB, Private MIB
- EN50121-4, NEMA-TS2 certified
- VDSL SFP optional

Electronic Toll Collection (ETC)

EKI-7710G-2CPI series Redundant Managed PoE Switches provide high bandwidth real-time data transmission for surveillance systems that require real time and high resolution image transmission and, offers less than 20ms recovery time to ensure a 24/7/365 continuous robust networking solution.

Why Advantech?

- Redundant Managed Gigabit Power over Ethernet (PoE) solutions offer high resolution image transmission with extra redundancy
- EKI-7700 series with embedded IXM fast deployment technology allows efficient device setting and maintenance.
- Wide operation temperature

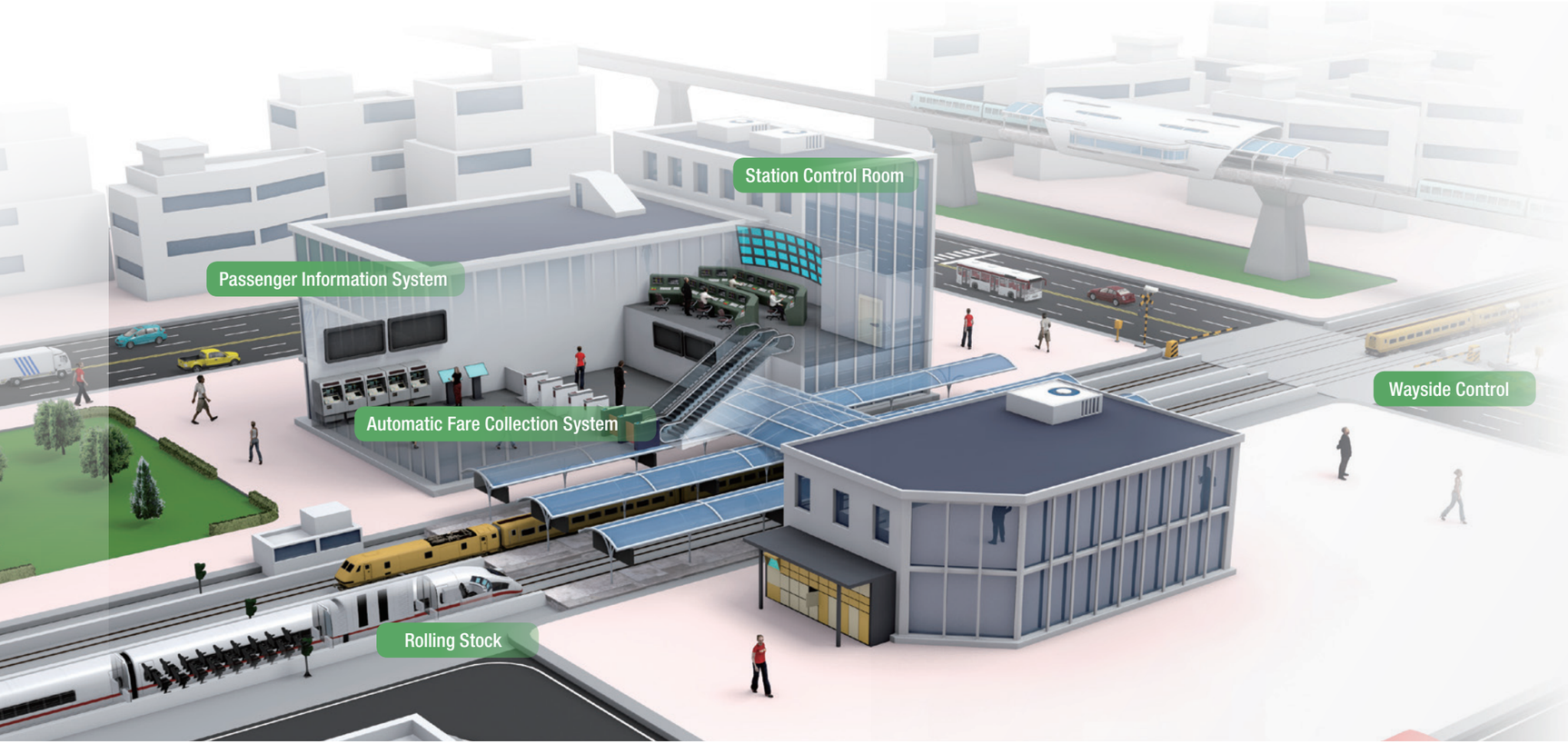


Key Products

EKI-7710G-2CPI
Industrial Managed PoE Switch
- IXM function enables fast deployment
- Redundancy: X-Ring Pro (ultra high-speed recovery time < 20 ms)
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standard MIB, Private MIB
- EN50121-4, NEMA-TS2 certified
- Support PoE/PoE+

Railway Systems

The rapid acceptance of Ethernet-based networking in railway infrastructures provides many subtle benefits to traveler's worldwide. Industrial Ethernet backbones offer high bandwidth to enable many IP-based applications. Advantech provides stable industrial communication solutions to fulfill railway system applications in train stations, Rolling stock, and station control system applications.



Passenger Information System

Advantech WebAccess/NMS is designed with SNMP and ICMP communication standards for managing all Ethernet-enabled Advantech products and third-party devices. WebAccess/NMS can bring users an easy-to-use platform to monitor and manage networking remotely and enable industrial grade centralized networking management.

Rolling Stock Communication

Advantech's EN50155 M12 Switch fulfills a wide range of applications in moving trains as it guarantees a reliable performance under vibration and shock. For passenger information systems (PIS) this allows for connecting with LCD and LED display boards which offer travel information, news and advertisements. For in-seat video entertainment systems (VES) this offers video monitors mounted on the back of every seat. And for IP surveillance this guarantees these devices can reliably connect with cameras for a variety of applications that provide increased safety and security.

Automatic Fare Collection System

In modern railway stations, automatic fare collection (AFC) systems include ticket vending machines (TVM), ticket checking machines (TCM), and gate control systems which require switches that can ensure fast, reliable, safe, and redundant operation.

Wayside Control

To control the trains from the wayside control cabinet, there are specific controllers including CBI, TCC, RBC, and TSRS to ensure non-stop operation. Advantech industrial Ethernet switches form a dual fiber optic ring network, and each controller is connected simultaneously to these 2 fiber rings. With Advantech's X-Ring Pro technology which ensures that a backup circuit is established in just 20ms to compensate for errors such as broken links, this comprehensive redundancy concept offers maximum possible security.

Station Control Room

Transportation systems include control room systems aim at providing communication, security, surveillance, and technology for safe, convenient and comfortable travel for all commuters. Advantech's industrial communication solutions provide robust Ethernet solutions that connect devices and ensure secure data transmission to the backend system.

Comprehensive Industrial Networking Solutions for Railway Systems

Rackmount Switch

EKI-9728G
L3 Rackmount Industrial Managed Switch

EKI-7428G Series
L2 Rackmount Industrial Managed Switch

EN50155 Product Series

EKI-9528 Series
28-Port EN50155 Managed Ethernet Switch w/ Support for PoE

EKI-9512E-4EETB
EN50155 Train Router for Rolling Stock Backbone

EKI-6333AC-M12
EN50155 Wi-Fi AP/ Bridge

EKI-9516P/9512P
EN50155 M12 Managed Ethernet PoE Switch

EKI-9508E
EN50155 Managed PoE Switch

Industrial Ethernet Switches

EKI-7700 Series
Industrial Managed Ethernet Switches

EKI-7700 PoE Series
Industrial Managed PoE Switches

EKI-5000 Series
Viewable Unmanaged Ethernet Switch

Industrial Device Servers

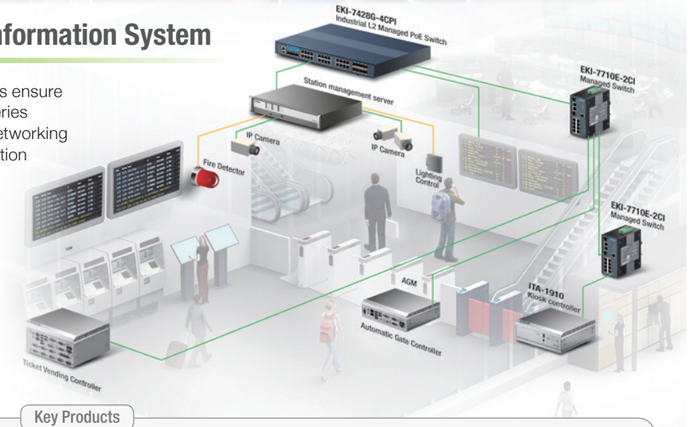
EKI-1520 Series
Rackmount Serial Device Servers

EKI-1520 Series
Serial Device Server

Railway Systems

Automatic Fare Collection & Passenger Information System

EKI-5000 viewable unmanaged Ethernet switches in AFC systems ensure secure data transmissions. The redundant managed EKI-7700 series switches offer PoE and non PoE models to provide continuous networking while EKI-7428G-CPI L2 managed switches serve as communication solutions in the backend system.



Why Advantech?

- Complete communication solution
- Viewable unmanaged switches allow device monitoring for secured data transmissions.

Key Products

EKI-5000 Series

Viewable Unmanaged Ethernet Switch

- Port-based QoS for deterministic data transmission
- 12 ~ 48 VDC (8.4 ~ 52.8 VDC) wide-range power input
- IEEE 802.3az Energy Efficient Ethernet (EEE) Jumbo Frame Support
- Loop detection

EKI-7700 Series

Industrial Managed Switch

- IXM function enables fast deployment
- Redundancy: X-Ring Pro (ultra high-speed recovery time < 20 ms)
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standard MIB, Private MIB
- PoE Models for surveillance available

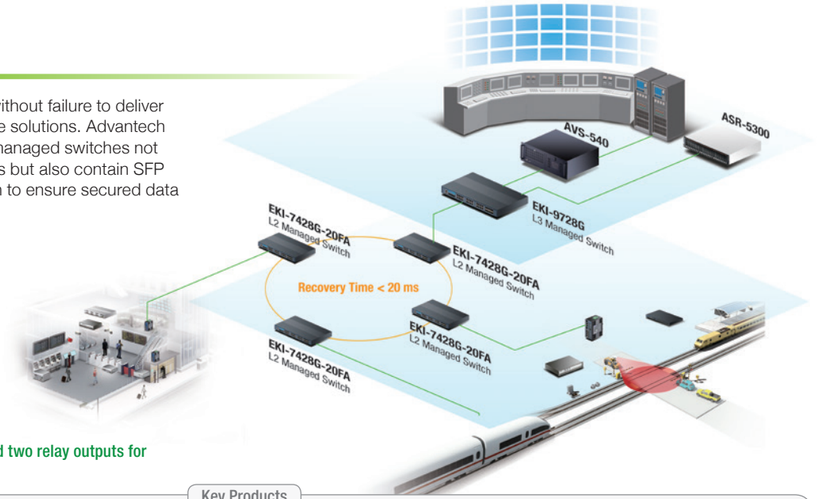
EKI-7428G-4CPI

Industrial 24G L2 Managed PoE Switch

- SFP socket for Easy and Flexible Fiber Expansion
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standard MIB
- IXM function enables fast deployment
- Security:802.1x (Port-Based, MD5/TLS/TTLS/PEAP Encryption),HTTPS,SSH and SNMPv3
- Redundancy: Gigabit X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D),MSTP

Station Control Room

Control room systems must function 24/7 without failure to deliver critical information and emergency response solutions. Advantech EKI-9728G series industrial rackmount L3 managed switches not only provide redundant networking solutions but also contain SFP sockets for easy and flexible fiber expansion to ensure secured data transmission.



Why Advantech?

- Abundant and flexible I/O ports
- Dual power inputs ensures system stability and two relay outputs for greater flexibility

Key Products

EKI-7428G-20FA

Industrial L2 Rackmount Industrial Managed Switch

- 20 x GbE SFP ports
- 100~240V AC power input
- Support X-Ring (ultra-recovery time < 20 ms)
- Support IXM (for fast deployment)

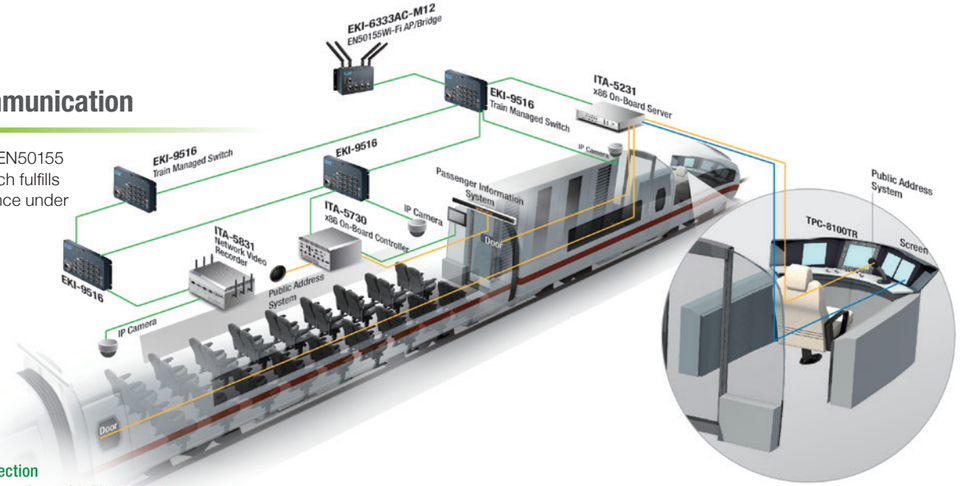
EKI-9728G

Industrial Rackmount L3 Managed Switch

- Support 4 x 10GbE Fiber (SFP+) ports
- Support up to 12GE SFP ports
- Dynamic Routing : RIPv1/v2, OSPF V2, VRRP
- Static Routing
- -40 ~ 85˚C wide-range operating temperature

Rolling Stock Communication

Advantech EKI-9500 series EN50155 complied M12 Ethernet Switch fulfills guarantee reliable performance under vibration and shock in train.



Why Advantech?

- M12 connector with IP67 protection
- Certified with EN50155 and compliant with EN45545-2
- X-Ring Pro supports rapid and predictable convergence
- LAN Bypass will assure continuous system operation when Ethernet Switch fails

Key Products

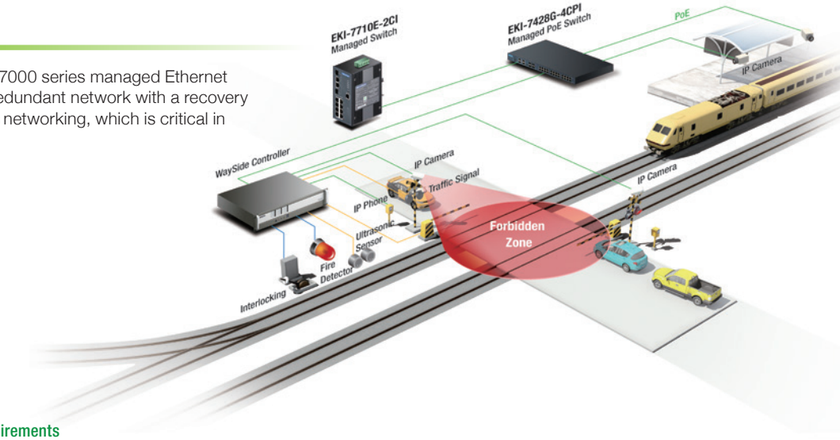
EKI-9508/9510/9512/9516/9528 Series

EN-50155 M12 Managed Ethernet Switch

- Certified with EN50155 and compliant with EN45545-2
- Redundancy: X-Ring Pro (ultra high-speed recovery time < 20 ms)
- M12 connector with IP67 protection
- IEEE 802.3af/802.3at per port with system PoE power management (PoE models)
- Two-pair LAN-Bypass ports

Wayside Control

In a wayside control system, Advantech EKI-7000 series managed Ethernet switch provides an easy way to establish a redundant network with a recovery time of less than 20ms to ensure continuous networking, which is critical in transportation systems.



Why Advantech?

- Complete communication solution
- Various form factors to fit different system requirements

Key Products

EKI-7700 Series

Industrial Managed Switch

- IXM function enables fast deployment
- Redundancy: X-Ring Pro (ultra high-speed recovery time < 20 ms)
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standard MIB, Private MIB
- Certified with EN50121-4

EKI-7428G-4CPI

Industrial Rackmount Managed PoE Switch

- 24 x IEEE 802.3 af/at PoE Gigabit ports + 4 x Gigabit Copper/SFP combo ports
- IXM for Fast Deployment
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standard MIB
- -40 ~ 70°C wide-range operating temperature

Surveillance System

Parking Lot Surveillance

To deter theft, vandalism, and other criminal activities in the parking lots, video surveillance systems play an important role in securing the safety of the parking areas. Advantech's EKI-7700 Industrial Managed Switch Series and PoE+ Giga-MiniMc LFPT Media Converters, both complying with 802.3af-2003 (15W) and IEEE 802.3at-2009 (30W, PoE+) standards provide a reliable PoE function to ensure sufficient power supply in remote areas. Along with EKI-6330 AP Series, they ensure an undisrupted data transmission from on-site equipment to the central control location. In addition, due to the compact and lightweight design of Giga-MiniMc LFPT Media Converters, it is no doubt the best choice when the installation space is limited.

Why Advantech?

- Advantech EKI-7700 Series support PoE function to eliminate the need to run dedicated power lines out to the camera/PD location
- Compact-sized Advantech B+B PoE+ Giga-MiniMc LFPT media converters include two 10/100/1000 Mbps Power-over-Ethernet (PoE) copper ports and an SFP (Small Form Pluggable) fiber port
- Advantech EKI-6330 AP Series are designed to avoid cross-talk, interference or corruption of the data streams to ensure seamless data transmission

Industrial Switches

EKI-7428G-4FA
EKI-7428G-20FA
Industrial Rackmount L2 Managed Switch

EKI-7710G-2CPI
Industrial Managed PoE+ Switch

Industrial Media Converter

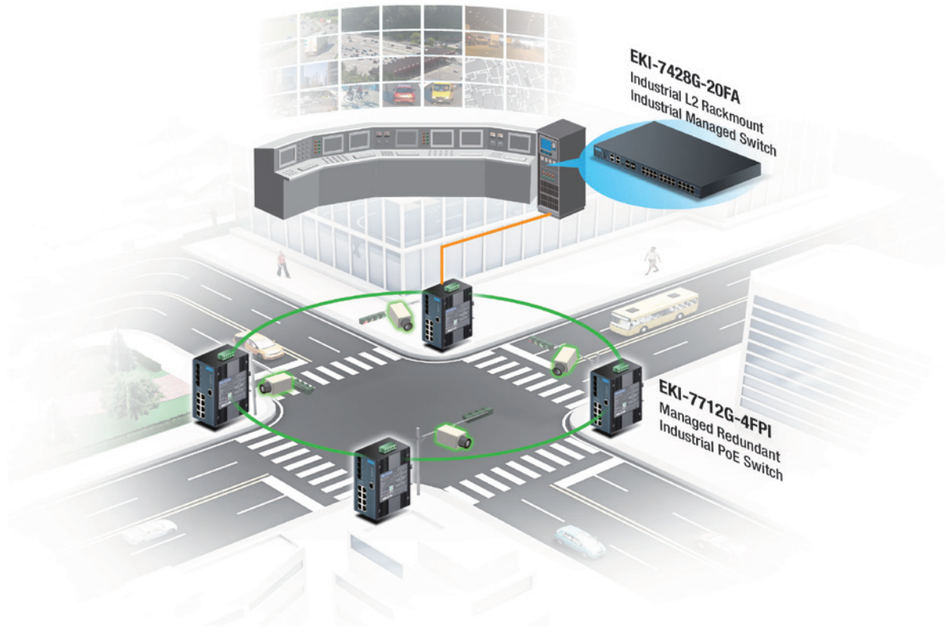
PoE 857-11811 & PoE+ 857-11911
PoE & PoE+ Giga-MiniMc/LFPT

Industrial Wireless AP

EKI-6331AN & EKI-6332GN
IEEE 802.11 a/n & b/g/n Wi-Fi AP/Client

Road Surveillance

Advantech's EKI-7000 Industrial Managed Switch Series are designed to support video streaming quality of service (QoS), Internet Group Management Protocol (IGMP), Virtual LAN (VLAN), rapid redundant function and extreme temperature environment to ensure an always-connected network for a better and safer traffic surveillance solution. In addition, Advantech's WebAccess/NMS, a trusted monitoring system further helps users to remotely access, monitor, and control the individual components of a network within a larger management framework, making it an ideal solution for road surveillance systems.



Why Advantech?

- Advantech EKI-7700 Series support PoE, QoS, IGMP, VLAN and X-Ring function to ensure an always-connected network for a better and safer traffic surveillance solution.
- A network management system (NMS) is a software utility to allow users to monitor the individual components of a network within a larger network management framework.

Industrial Switches

EKI-7428G-20FA
Industrial Rackmount L2 Managed Switch

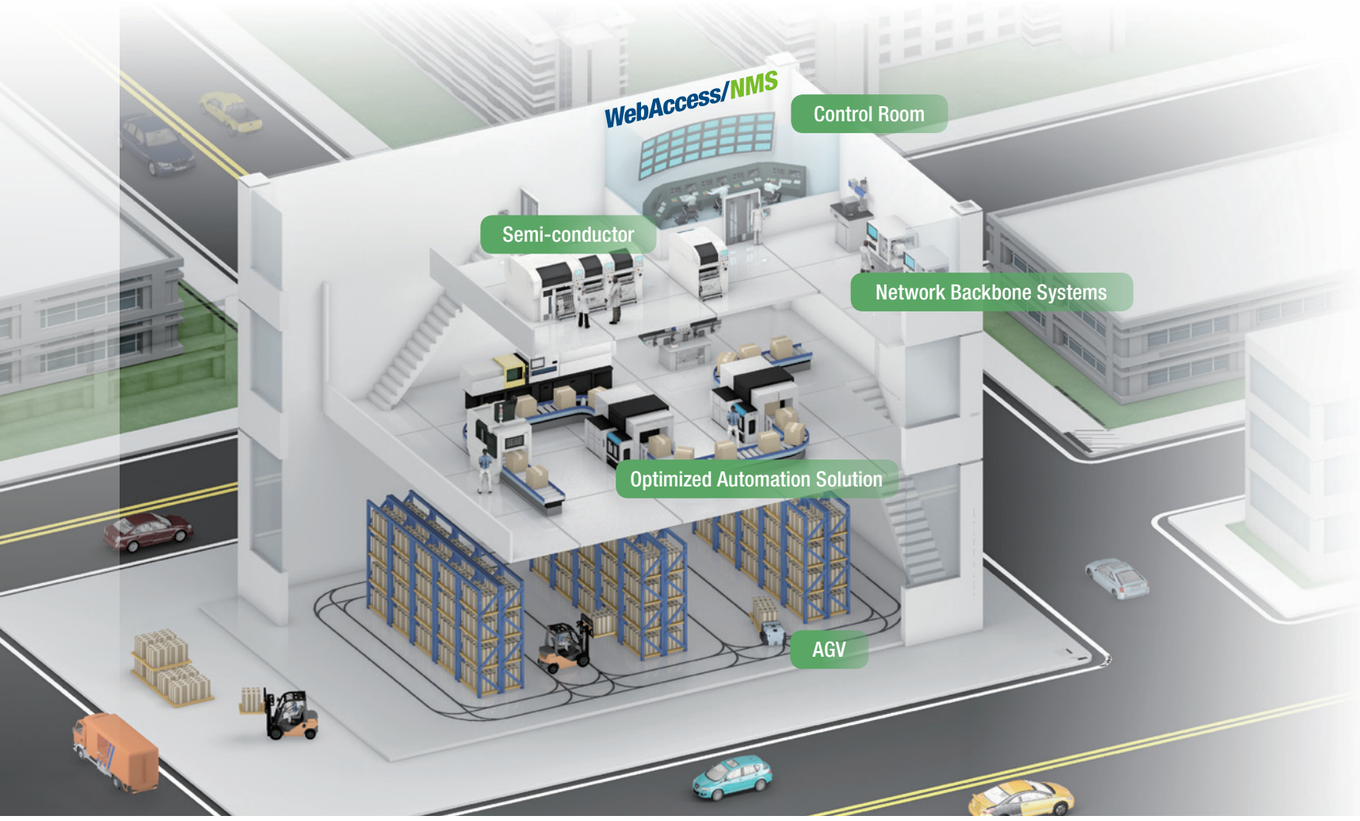
EKI-7710G-2CPI
Industrial Managed PoE+ Switch

NMS

WebAccess/NMS
Network Management System

Machine and Factory Automation Systems

Ethernet networking offers a reliable and open network infrastructure that allows the various systems used with today's machine and factory automation applications to communicate effectively, resulting in a highly synchronized operation. Advantech's Factory and Machine Automation products target production automation, packaging automation, and logistics & warehousing that require a compact, reliable, and robust network system. Advantech helps customers achieve high scale volume production goals and raise market competitiveness.



Control Room

Data in modern factories are transmitted through networking systems to center control rooms either for system monitoring or machine health prediction. Advantech's WebAccess/NMS is designed with SNMP and ICMP communication standards for managing all Ethernet-enabled Advantech products and third-party devices. WebAccess/NMS provides an easy-to-use platform to monitor and manage networks remotely. WebAccess/NMS enables industrial grade centralized networking management: a synthetic platform developed for remote monitoring, setting and maintaining devices via IP-based network.

Optimized Automation Solution

EtherNet/IP and PROFINET are the leading automaton communication standards that combine standard Ethernet technologies with industrial protocols to enable network convergence for IT and manufacturing control systems. Advantech's new generation protocol switches and gateways support EtherNet/IP and PROFINET protocols to communicate with EtherNet/IP and PROFINET based PLCs and also provide a FactoryTalk® View compliant faceplate for users to easily integrate with Allen-Bradley® PLCs.

Network Backbone Systems

Stable network connection is critical to modern factories as machines and devices are connected and require Ethernet to communicate. Advantech EKI-9600/9700/7700 Series (Layer 3 and Layer 2) Managed Ethernet Switches support NMS to help IT managers with networking maintenance and failure prevention. X-Ring achieves ultra high speed recovery time of less than 20 ms to ensure high network stability.

Auto Guided Vehicle (AGV)

Widely used across many industries, Automated Guided Vehicles (AGV) have been darting around factory floors for decades to facilitate production. Building an AGV system requires Ethernet switches and wireless modules. The AGV system includes a small EKI-5525 5-port Fast Ethernet Switch, an EKI-1361 wireless serial device server, and an EKI-6332GN WiFi AP/Bridge/Client wireless module to communicate with the control station, while in the control site an EKI-7710E Managed switch is responsible for sending signals to EKI-6332GN devices spread throughout the site.

Comprehensive Industrial Networking Solutions for Machine and Factory Automation

NMS

WebAccess/NMS

WebAccess/NMS System
Network Management System

Industrial Routers

EKI-1200R
Modbus Router

SmartFlex
LTE Industrial Router

SmartStart
LTE Industrial Router

Serial Device Server

EKI-1520 Series
Rackmount/Din-Rail Serial Device Servers

Modbus and Fieldbus Gateway

EKI-1220 Series
Industrial Modbus Gateway

EKI-1242 Series
Industrial Fieldbus Gateway

Industrial Ethernet Switches

EKI-2525LI
Ultra Compact Unmanaged Ethernet Switch

EKI-7700 Series
Industrial Managed Ethernet Switch

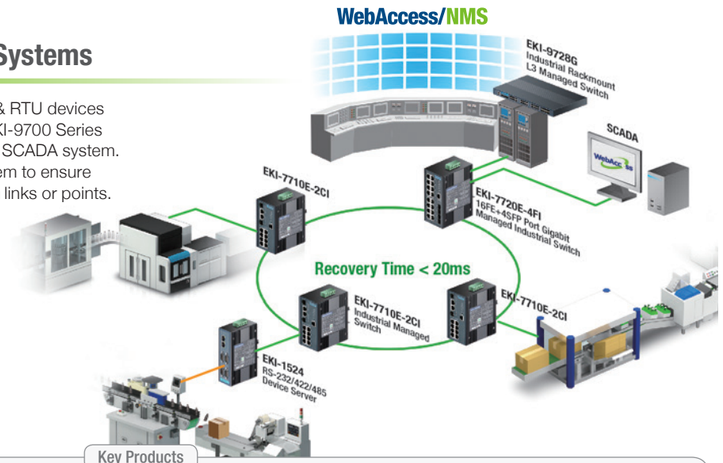
EKI-5600 Series
EKI-5500 Series
Entry-Level Managed Switch

EKI-5000 Series
Unmanaged Ethernet Switch

Machine and Factory Automation Systems

Control Room & Network Backbone Systems

Advantech's EKI-1524 serial device server connects PLC & RTU devices to EKI-7700 Series Redundant Managed Switches and EKI-9700 Series L3 Managed Switches and transmits real-time data to the SCADA system. Together they help build a robust network backbone system to ensure constant networking and eliminate downtime from broken links or points.



Why Advantech?

- Complete communication solution
- Various form factor servers fit different system requirements
- Redundant managed Ethernet switch solution with IXM fast deployment technology for better control room and network backbone systems.
- Total solution for machine and factory automation system management including WebAccess/NMS and SCADA systems

Key Products

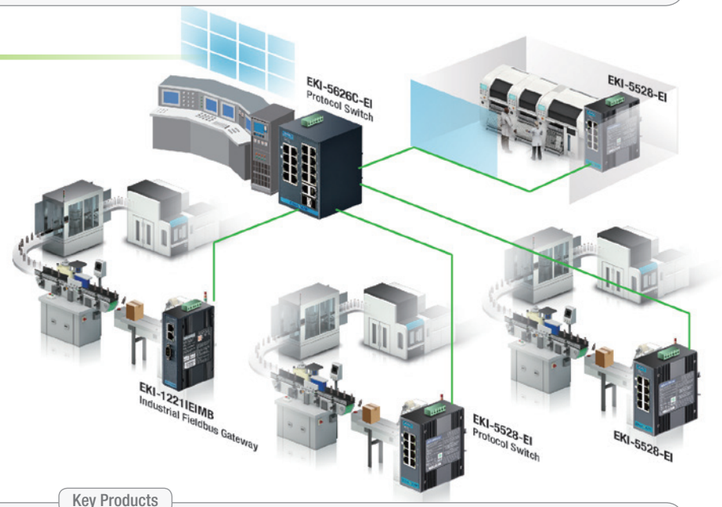
WebAccess/NMS System
Network Management System
- Cross-browser, cross-platform based on HTML5
- Google Maps and GPS location tracking integration
- Automatically discovers and diagrams network topology
- Support all Advantech IP-based devices & extension of 3 party devices

EKI-7700 Series
Industrial Managed Switch
- IXM function enables fast deployment
- Redundancy: X-Ring Pro (ultra high-speed recovery time < 20 ms)
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standard MIB, Private MIB

EKI-9728G Series
Industrial Rackmount L3 Managed Switch
- Support 4 x 10GbE Fiber (SFP+) ports
- Support up to 12GE SFP ports
- Dynamic Routing : RIPv1/v2, OSPF, VRRP
- -40 ~ 85°C wide-range operating temperature

Optimized Automation Solution

Advantech's new generation protocol switches and Fieldbus gateways support EtherNet/IP and PROFINET protocols to communicate with EtherNet/IP and PROFINET based PLCs and also provide a FactoryTalk® View compliant faceplate for users to easily integrate with Allen-Bradley® PLCs. The IP30 compact metal housing mechanism protects against dusty industrial environments and therefore ensures continuous device connectivity while the input power range from 8.4 to 52.8 VDC is dedicated to operating in areas with unstable power and rugged environments.



Why Advantech?

- Seemless integration with Rockwell and Siemens PLCs
- Easy and fast deployment from Advantech IXM technology

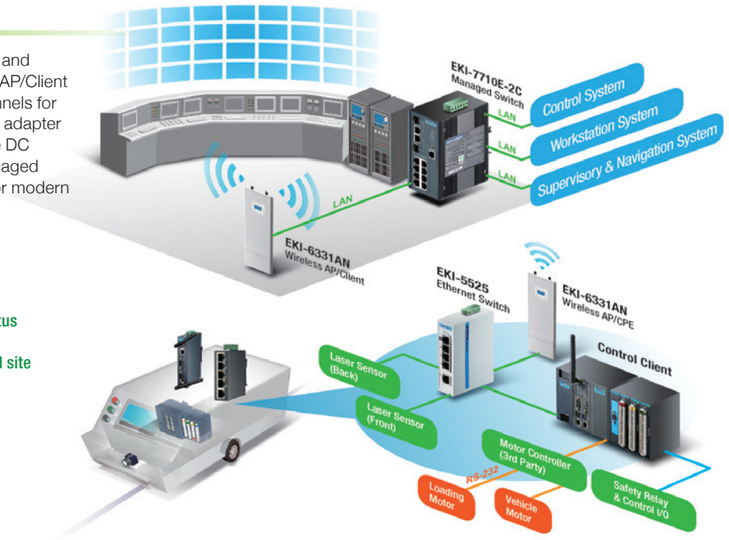
Key Products

EKI-1242EIMS/ECMS/PRMS/BNMS
EKI-1242/OUMS/NR
Industrial Fieldbus Gateway Supporting EtherNet/IP, EthernCAT, PROFINET, BACNet, OPC UA and Node-RED
- The most cost-effective way for protocol conversion
- Reliable protocol extensibility to achieve interoperability
- Built-in diagnostic tool to collect data and monitor device status in real-time

EKI-5500/5600 Series
Industrial Protocol Switch Supporting PROFINET, EtherNet/IP and Modbus TCP
- Compatible with SIMATIC step 7 and TIA portal (PROFINET compatible models)
- PROFITNET models support Media Redundancy Protocol (MRP)
- Faceplate compatible with Rockwell FactoryTalk® View (EtherNet/IP compatible models)
- Easy and fast deployment from Advantech IXM technology
- Crucial management functions embedded

Auto Guided Vehicle (AGV)

EKI-5525 managed Ethernet switch allows for better control and monitoring of network status with rich EKI-6331AN wireless AP/Client providing reliable 5GHz wireless connectivity and more channels for communication with less interference. The EKI-6331AN PoE adapter also enhances flexibility in AP/Client deployment even where DC power supply is not available. Along with EKI-7710E-2C managed Ethernet switches, they help you build a solid AGV system for modern factories.



Why Advantech?

- Viewable managed switch for monitoring device connectivity status
- Fast roaming for seamless wireless connectivity
- X-Ring Pro supports rapid and predictable convergence in control site

Key Products

EKI-5525
Unmanaged Ethernet Switch
- Port-based QoS for deterministic data transmission
- 12 ~ 48 VDC (8.4 ~ 52.8 VDC) wide-range power input
- IEEE 802.3az Energy Efficient Ethernet (EEE) Jumbo Frame Support
- Loop detection

EKI-6331AN
IEEE 802.11 a/n Wi-Fi AP/Client
- Compliant with IEEE 802.11 a/n
- IP55 waterproof certification
- MIMO 2 x 2 11n
- External RP-SMA connectors for 2T2R antennae
- High output power
- Passive 24V PoE

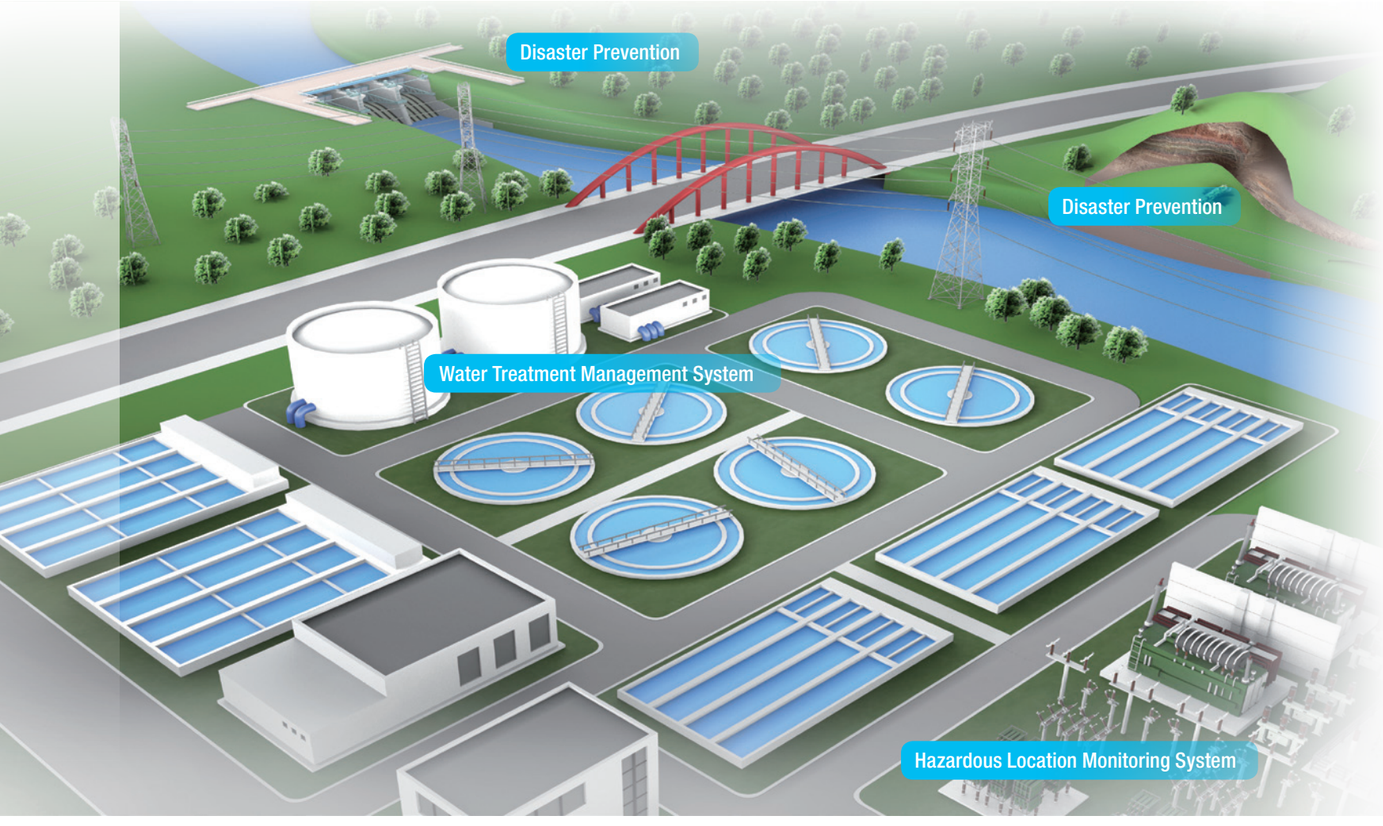
EKI-7710E-2C
Industrial Managed Switch
- IXM function enables fast deployment
- Redundancy: X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standard MIB, Private MIB
- IP30

EKI-2525LI
Ultra Compact Unmanaged Ethernet Switch
- 5 x Fast Ethernet ports w/ slim design
- Supports redundant power input = 1 x DC power jack
- Wide operating temperature range (-40~75"C)
- IP40-rated chassis design

EKI-1360/ EKI-1360MB Series
WLAN Serial/Modbus Device Server
- 1 x 10/ 100 Mbps Ethernet ports for LAN redundancy
- VCOM, TCP server, TCP client, UDP, and RFC2217 operating models
- Supports dual bands 2.4/ 5 GHz (selective)

Environment and Facility Management Systems

Advantech has an excellent reputation for developing Environmental and Facility Management Systems (EMS). While Environmental Monitoring applications focus on air, water, river, dam and electric applications, Facility Management targets factory and remote SCADA applications. Advantech's air quality monitoring systems, hazardous location monitoring systems, and waste water treatment management systems provide value-added systems and solutions, allowing users to monitor and operate processes anytime anywhere.



Water and Wastewater Treatment

Proper water treatment is a very important endeavor for all industrial and public enterprises. Water treatment produces organic and mineral sludge from filtration and sedimentation. Therefore, it is important to centralize the measurement of water consumption, collect all the information on the status of the water, and remotely control the water flow level in each node (branch). Advantech offers complete water and waste water treatment monitoring and control systems for treating water to obtain very high quality water.

Disaster Prevention

Data needed for disaster prevention is collected from remote locations ; therefore, product stability and remote firmware upgrade functions are crucial to reduce manpower on maintenance. Advantech's robust communication solutions including Network Management System, Industrial Router, Media Converter, and Managed Ethernet Switches provide a complete communication solution for real time monitoring of dams and rivers to prevent disasters.

Hazardous Location Monitoring System

In chemical and petrochemical plants with hazardous areas, high security is required to protect valuable equipment and prevent accidents. Advantech's ATEX/C1D2 certified Industrial Communication Solution includes cellular routers, Ethernet switches and serial device servers which are designed for hazardous locations and provide reliable and robust communication connection.

Comprehensive Industrial Networking Solutions for Environment and Facility Management Systems

NMS

WebAccess/NMS

WebAccess/NMS System
Network Management System

Industrial Routers

SmartFlex
LTE Industrial Router

Media Converters

EKI-2741 / EKI-2541 Series
Media Converter

MiniMc
Miniature Media Converters

Industrial Ethernet Switches

EKI-5000 Series
Unmanaged Switch

EKI-7700 Series
Industrial Managed Switch

EKI-7428G-4CI
Rackmount Managed Switch

LoRa Gateways/Nodes

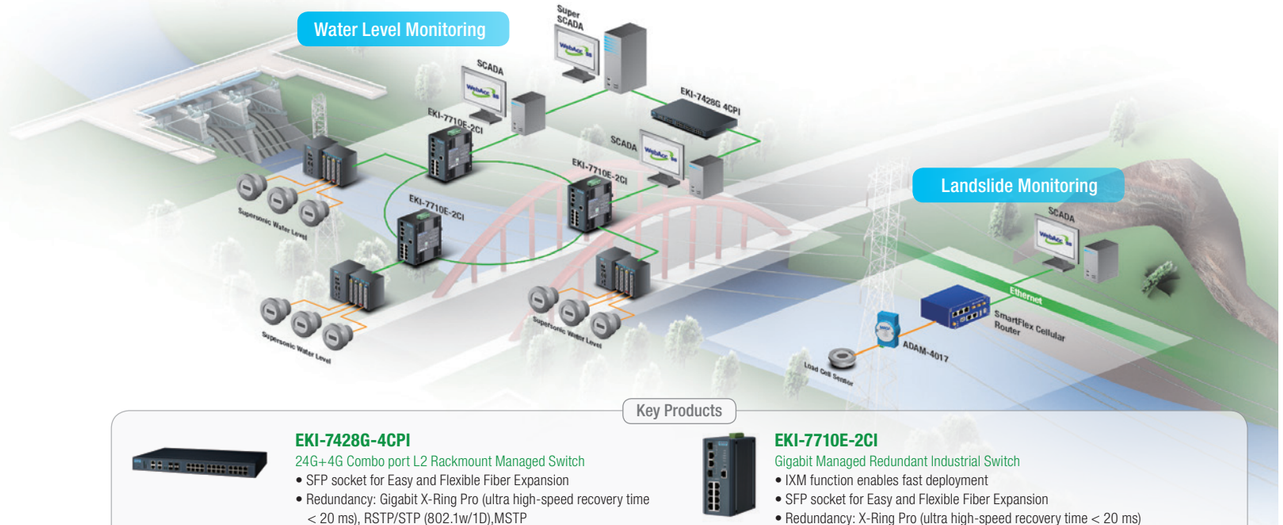
WISE-6610
LoRaWAN Gateway

Wzzard LRPv2 Sensor Node
Wzzard LRPv2 Sensor Node

Environment and Facility Management Systems

Disaster Prevention

Disaster prevention service providers need to collect various kinds of data from remote locations. This data often comes from different devices using different formats and protocols. The fact that this data often takes a long time to process before it is usable reduces the time available for the development of the GIS. To overcome the incompatibilities of different data formats, service providers should offer a total data acquisition solution that can store the data in a database that the GIS can use. Another drawback is that current systems do not support remote management. Therefore, when system settings need to be changed or a firmware upgrade must be performed, personnel have to be dispatched to the site in order to carry out their tasks.



Key Products

EKI-7428G-4CPI

24G+4G Combo port L2 Rackmount Managed Switch

- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: Gigabit X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D),MSTP
- 48VDC power input (46-57 VDC for POE af , 53 -57 VDC is recommended for at) and 2 relay output
- -40 ~ 70°C wide-range operating temperature

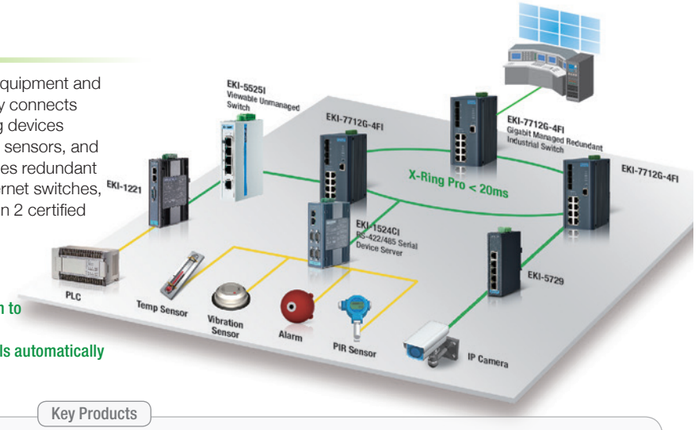
EKI-7710E-2CI

Gigabit Managed Redundant Industrial Switch

- IXM function enables fast deployment
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: X-Ring Pro (ultra high-speed recovery time < 20 ms)
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standard MIB, Private MIB

Hazardous Location Monitoring System

In hazardous areas, high security is required to protect valuable equipment and prevent accidents. Advantech's EKI-1220 series Modbus Gateway connects PLCs while EKI-1520 Series Serial Device Server connects analog devices including temperature sensors, vibration sensors, alarms and PIR sensors, and send back all the data to the control center through EKI-7700 series redundant Managed Ethernet Switch. The networking solution includes Ethernet switches, Modbus gateways, and device servers that are UL, Class I Division 2 certified for hazardous locations.



Why Advantech?

- Dual DC power input from 12 to 48 VDC and 2 KV EFT/Surge protection to prevent damage from various power sources
- Dual SIM slots support GPRS signal redundancy which switch channels automatically
- C1D2 certified
- Operating under wide temperature

Key Products

EKI-5000 Series

Viewable Unmanaged Ethernet Switch

- Port-based QoS for deterministic data transmission
- 12 ~ 48 VDC (8.4 ~ 52.8 VDC) wide-range power input
- IEEE 802.3az Energy Efficient Ethernet (EEE) Jumbo Frame Support
- Loop detection

EKI-1220 Series

Modbus Gateway

- Integration of Modbus TCP and Modbus RTU/ASCII networks
- Auto searching slave ID over configuration utility
- Built-in 15 KV ESD protection for all serial signals
- Automatic RS-485 data flow control

EKI-1524CI

RS-422/485 Serial Device Server

- COM port redirection (Virtual COM), TCP and UDP operation modes
- Built-in 15 KV ESD protection for all serial signals
- Supports line to line 4 KV, line to ground 8 KV
- Provides isolation and wide operating temperature

EKI-7712E-4FI Series

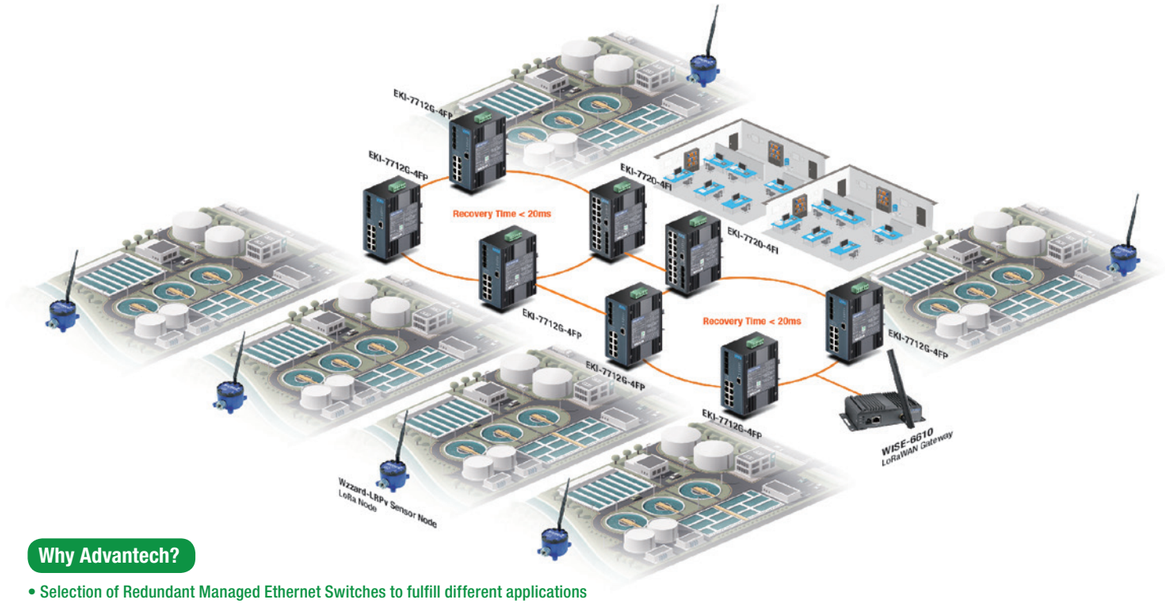
Gigabit Managed Redundant Industrial Switch

- IXM function enables fast deployment
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: X-Ring Pro (Recovery time < 20 ms)




Water Treatment Management System

Advantech EKI-7712E-4F/FI and EKI-7720E-4F/4FI Gigabit Managed Redundant Industrial Switches with IXM fast deployment technology not only allow for redundant Ethernet connection but also provide efficient device configuration and deployment. In addition, the switch offers excellent reliability with X-Ring Pro to avoid network down times of less than 20ms.



Why Advantech?

- Selection of Redundant Managed Ethernet Switches to fulfill different applications
- IXM technology allows for easier deployment and configuration and improves the efficiency of device operation in remote areas

Key Products

EKI-7712E-4FI Series

Gigabit Managed Redundant Industrial Switch

- IXM function enables fast deployment
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: X-Ring Pro (Recovery time < 20 ms)

EKI-7720E-4FI Series

Gigabit Managed Redundant Industrial Switch

- IXM function enables fast deployment
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: X-Ring Pro (Recovery time < 20 ms)

WISE-6610

LoRaWAN Gateray

- Long Range Wide Area IoT gateway
- Low power consumption for solar and battery power applications
- LoRa Private protocol for closing system application

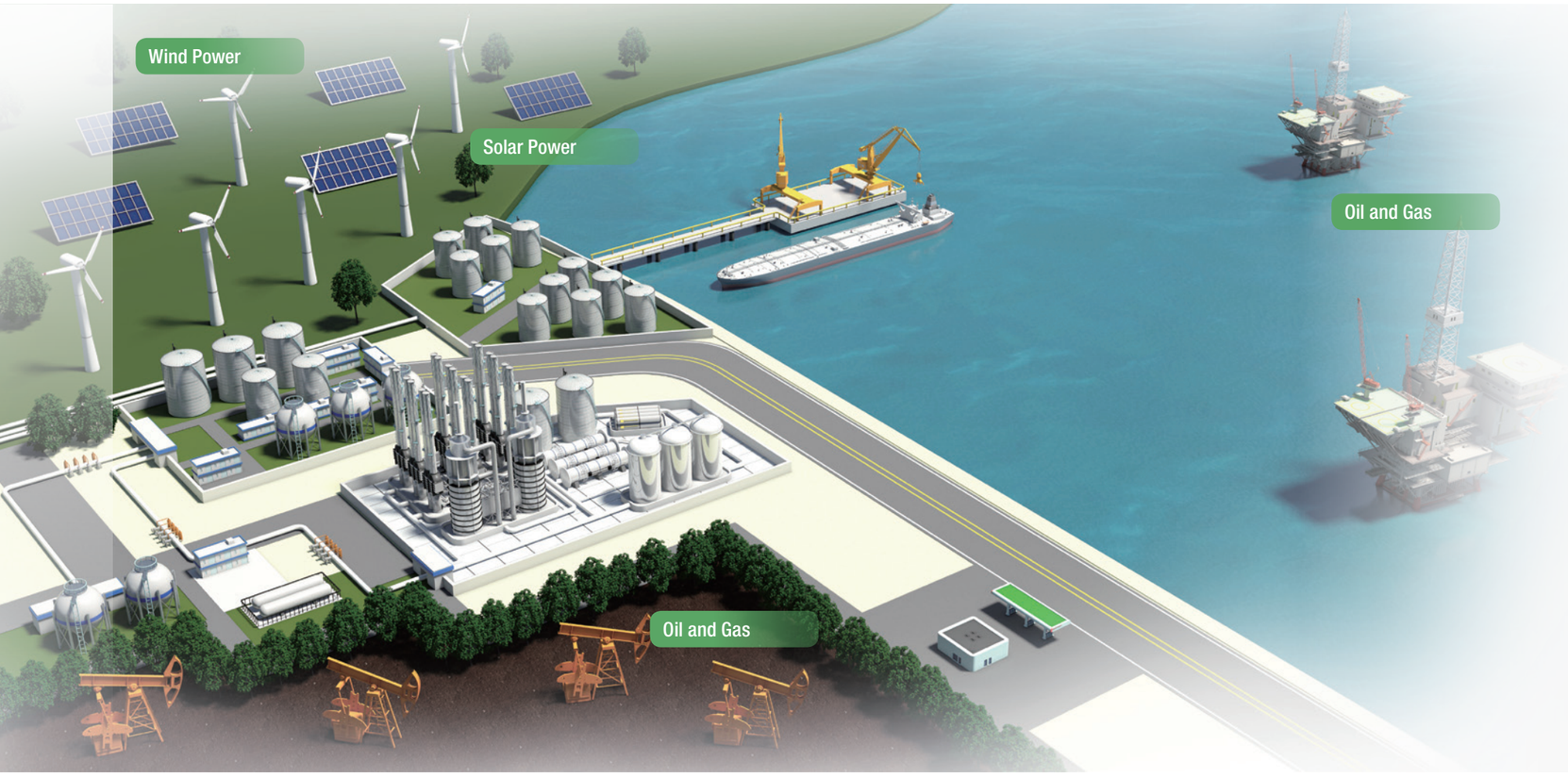
Wzzard LRPv2 Sensor Node

LoRaWAN Node

- Low power consumption for solar and battery power applications
- Long Range Wide Area IoT gateway
- Rugged, IP67, fiber reinforced polyester PBT enclosure
- Support LoRaWAN

Smart Grids and Oil & Gas

Advantech provides Industrial communication solutions to build automated systems for the real-time central monitoring of a variety of field data acquired from remote locations including wind farms, solar farms, and oil wells. Gateway solutions are used to acquire a variety of field data, while wireless solutions are used to solve the issue of complex wiring problems. Large amounts of information is processed in cloud servers, and industrial grade switches with required certifications provide continuous data transmission. Finally, SCADA software presents real-time monitoring information, failure alarms and customized reports to effectively develop maximum operational efficiency of wind farms and photovoltaic power stations.



Wind Power Transmission System

Wind power plants require many information management systems and remote wind turbine monitoring systems. Wind power is often used in harsh environments with high day/night temperature differences and serious dust and/or sand exposure. The rugged electromagnetic environment of the motor control systems requires an industrial switch with excellent anti electromagnetic interference capability and long MTBF. In order to enhance communication reliability, the operator has to set up a redundant ring with short failover time. When any error occurs in the communication network, the switch should smoothly switch to the redundant backup line. Fiber optic managed switches with wide temperature operating ranges help provide a reliable X-Ring Pro networking topology to ensure uninterruptible data transmission.

Solar Power Transmission System

To harness the sun's power, many countries have been investing in solar technologies for over 30 years. Today's solar power systems include reflectors, mirrors, heat insulating absorbers, motion control technologies, and data transmission systems. Advantech's industrial LTE/3G Cellular Routers are a perfect fit for wireless data transmission systems due to their great performance, reliability and ruggedness. LTE/3G Cellular Routers collect data from solar panels and inverter, pyranometer, and relative sensors. This information is then transmitted through cellular data networks to the control center to easily access real-time information. LTE/3G Cellular Routers provide dual SIM slots for redundancy and one SD slot for storage expansion.

Hazardous Location Monitoring System in Oil & Gas

Wells and pumping stations are located in remote and hazardous environments where wide temperatures, pressure, and vibration are normal and high security is required to protect valuable equipment and prevent accidents. Advantech's Industrial Communication Solution includes cellular routers, Ethernet switches (ATEX/C1D2 certified) and serial device servers which are designed to build robust communication solutions to connect central control rooms with remote devices to ensure continuous data transmission for hazardous location monitoring and maintenance.

Comprehensive Industrial Networking Solutions for Smart Grids and Oil & Gas

NMS

WebAccess/NMS

WebAccess/NMS System
Network Management System

Industrial Routers

SmartFlex
LTE Industrial Router

SmartStart
LTE Industrial Router

ICR-3200
LTE Industrial Router

Industrial Wireless

EKI-6331AN/EKI-6332GN
IEEE 802.11n WiFi AP/Bridge/Client

Industrial Ethernet Switches

EKI-7700 Series
Industrial Managed
PoE Switch

EKI-7700 Series
Industrial Managed
Ethernet Switch

EKI-5000 Series
Unmanaged Switch

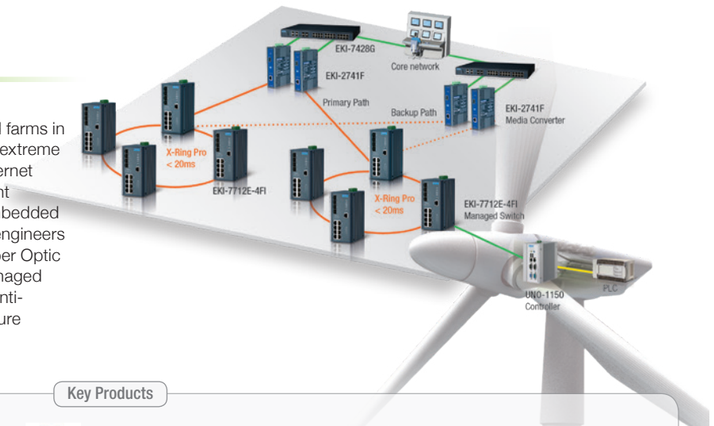
IEC-61850

EKI-9228G
Industrial Rackmount Managed
Switch with IEC-61850 Certification

Smart Grids and Oil & Gas

Wind Power

Advantech industrial grade Ethernet Switches provide rugged communication solutions for harsh environments such as wind farms in contact with high/low, day/night temperature fluctuations and extreme dust/sand exposure. EKI-7712E-4FI Redundant Managed Ethernet Switch with redundant ring smoothly switches to the redundant backup line if connection failures occur. Moreover, the IXM embedded function allows for fast deployment which dramatically saves engineers time and cost. The overall solution also includes EKI-2741F Fiber Optic Industrial Media Converter and EKI-7428G Rackmount L2 Managed Switch, which provides redundant networking with excellent anti-electromagnetic interference capability and long MTBF to ensure smooth transmission rates.



Key Products

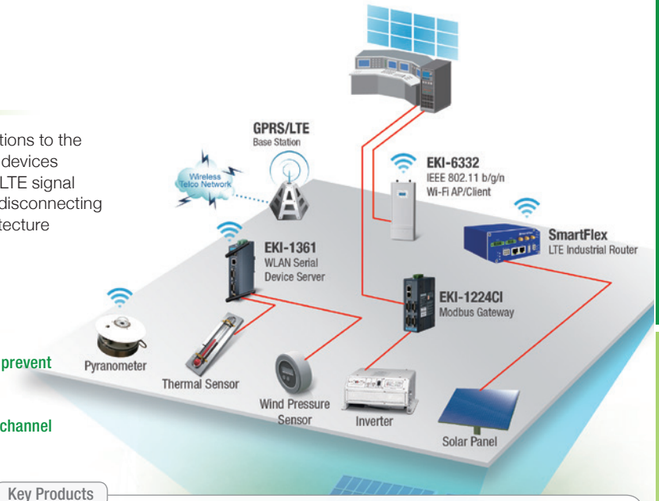
EKI-7428G-4CPI
Industrial 24G L2 Managed PoE Switch
- SFP socket for Easy and Flexible Fiber Expansion
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standard MIB
- IXM function enables fast deployment
- Security:802.1x (Port-Based, MD5/TLS/TTLS/PEAP Encryption),HTTPS,SSH and SNMPv3
- Redundancy: Gigabit X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D),MSTP

EKI-2741F
Fiber Optic Gigabit Industrial Media Converters
- 1000 Mbps Ethernet port with RJ45 connector
- Supports MDI/MDI-X auto crossover
- Provides Link Fault Pass-through (LFP)
- Jumbo Frame: 9K bytes

EKI-7712E-4FI Series
Gigabit Managed Redundant Industrial Switch
- IXM function enables fast deployment
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: X-Ring Pro (ultra high-speed recovery time < 20 ms)
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standard MIB, Private MIB

Solar Farm

Advantech SmartFlex cellular routers offer abundant connection options to the cellular network including Serial Ports, Modbus, WiFi, and Ethernet devices for reliable connection in remote areas. The dual SIM slots support LTE signal redundancy and switch to an available channel automatically while disconnecting the current channel. Additional modules provide a flexible SW architecture environment for creating various customized applications.



Why Advantech?

- Wide range power input from 10 to 60 VDC, 2 KV EFT/Surge protection to prevent damage from various types of power resources
- 2 KV serial line protection
- Dual SIM slots support LTE signal redundancy and switch to an available channel automatically

Key Products

SmartFlex
LTE Industrial Router
- Support worldwide channel
- Dual SIM for telecom redundancy
- Wide range DC input(10-60VDC) and wide range operating temperature (-40 to +75 °C)
- Connect Ethernet and Serial Devices over VPN
- Various interface: serial ports, Modbus, I/O, WiFi, GPS, USB, SD card slot, and Ethernet

EKI-1361
WLAN Serial Device Server
- Links any serial device to an IEEE 802.11 a/b/g/n network
- Provides 1/2 x RS-232/422/485 port
- Secures data access with WEP, WPA, and WPA2
- Supports WLAN Ad-hoc and infrastructure modes
- Support Dual band 2.4G/5G selective

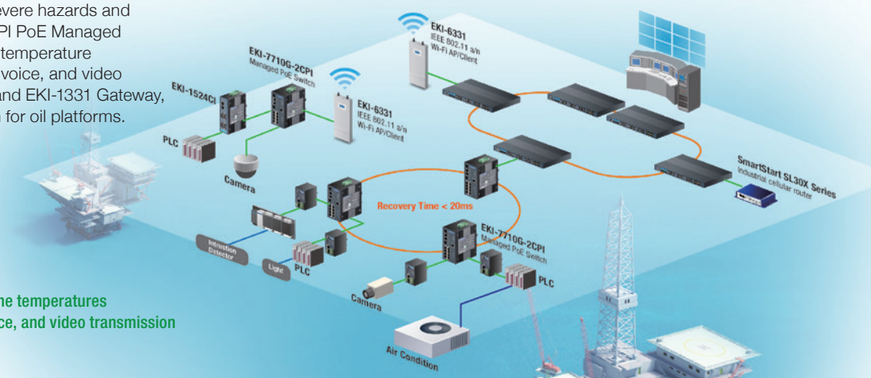
EKI-1224CI
Modbus Gateway with Isolation and Wide Temperature
- 2 x 10/100 Mbps Ethernet ports for LAN redundancy
- Integration of Modbus TCP and Modbus RTU/ASCII networks
- Surge protection for D.C. power ports with line to line 2 KV, and line to earth 4 KV; for signal ports with 4 KV
- Support isolation and wide operating temperature

EKI-6332GN
802.11N WiFi AP/Bridge/Client
- Compliant with IEEE 802.11 a/n and 802.11 b/g/n
- High output power
- Fast roaming
- IP55 waterproof

Oil and Gas

Wired and Wireless Communication Solution for Oil Platforms

To ensure continuous remote monitoring of drilling platforms, the communication infrastructure needs to be robust and redundant due to the severe hazards and challenges present in oil platforms. Advantech EKI-7710G-2CPI PoE Managed Switch provides a stable communication solution for extreme temperature operation, while its high bandwidth enables high quality data, voice, and video transmission. Combined with EKI-6330 series WiFi solutions and EKI-1331 Gateway, they provide a robust industrial grade communication solution for oil platforms.



Why Advantech?

- Wide temperature models allow for stable communication in extreme temperatures
- High bandwidth Ethernet Switch solutions for high quality data, voice, and video transmission
- Redundancy prevents data loss from network connection failures
- Complete communication solutions to provide solid networking

Key Products

EKI-7710G-2CPI
Industrial Managed PoE Switch
- IXM function enables fast deployment
- Redundancy: X-Ring Pro (ultra high-speed recovery time < 20 ms)
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standard MIB, Private MIB

EKI-1524 Series
RS-232/422/485 Device Server
- COM port redirection (Virtual COM), TCP and UDP operation modes
- Built-in 15 KV ESD protection for all serial signals
- Supports line to line 4 KV, line to ground 8 KV
- Provides isolation and wide operating temperature

EKI-6331AN
IEEE 802.11 a/n Wi-Fi AP/Client
- IP55 waterproof certification
- MIMO 2 x 2 11n
- High output power
- Passive 24V PoE

EKI-5000 Series
Unmanaged Switch
- UL C1D2, ATEX, IECEx certified
- Monitoring utility
- Port-based QoS for deterministic data transmissions
- Loop detection
- Dual power inputs

SL30x Series
SmartStart Routers & Gateways
- LTE/UMTS/HSPA+/UMTS/HSDPA/GPRS/EDGE
- Wi-Fi (optional)
- 2 x SIM card holders
- Advanced security and networking features
- UL 60950-1 certification for hazardous locations

Wireless Solutions for Oil Well Pump Trucks

Pump trucks with WiFi solve the problem of oil and gas wells that are located far from existing Ethernet networks. Advantech EKI-6330 series WiFi AP/Bridge/Client are simple to deploy and easy to adapt. They can be installed on pump trucks and in mobile control centers to achieve excellent communication and allow nearby laptops and wireless devices to connect to the same network.

Why Advantech?

- High flexibility WiFi devices allow for user friendly device deployment

Key Products

EKI-6331AN
IEEE 802.11 a/n Wi-Fi AP/Client
- IP55 waterproof certification
- MIMO 2 x 2 11n
- High output power
- Passive 24V PoE

EN50155 Ethernet Switches




Model Name		EKI-9512E-4GETB	EKI-9510G-2GMPH EKI-9510G-2GMPL	EKI-9510E-2GMPH EKI-9510E-2GMPL	EKI-9508G-MPH EKI-9508G-MPL
Description		EN 50155 12-port Ethernet Train Backbone Router	EN 50155 10-port Full Gigabit Managed Ethernet Switch/With PoE	EN 50155 10-port Managed Ethernet Switch/With PoE	EN 50155 8-port Full Gigabit Managed Ethernet Switch/With PoE
Interface	Ports Number	12	10	10	8
	10/100Base-T (X)	8	-	-	-
	100BaseFX	-	-	-	-
	10/100/1000Base-T (X)	4	2	2	-
	1000Base-SX/LX/LHX/XD/ZX/EZX	-	-	-	-
	PoE (10/100 Mbps)	-	-	8	-
	PoE (10/100/1000 Mbps)	-	8	-	8
	DI/DO	-	-	-	-
	Console	✓	✓	✓	✓
Network Management	Redundancy	✓	✓	✓	✓
	Diagnostics	✓	✓	✓	✓
	VLAN	✓	✓	✓	✓
	Configuration	✓	✓	✓	✓
	SNMP	✓	✓	✓	✓
	Security	✓	✓	✓	✓
	Traffic Control	✓	✓	✓	✓
Power	12 ~ 48 V DC	-	-	-	-
	24 ~ 110 V DC	✓	EKI-9510G-2GMPL: 24~48V DC EKI-9510G-2GMPH: 72~110V DC	EKI-9510E-2GMPL: 24~48V DC EKI-9510E-2GMPH: 72~110V DC	EKI-9508G-MPL: 24~48V DC EKI-9508G-MPH: 72~110V DC
	100 ~ 240 V AC	-	-	-	-
	Relay Output	✓	-	-	-
Mechanism	DIN-rail Mount	-	-	-	-
	Wall Mount	✓	✓	✓	✓
	Rack Mount	-	-	-	-
	IP Level	IP67	IP40	IP40	IP40
Protection	ESD (Ethernet)	✓	✓	✓	✓
	Surge (EFT for power)	✓	✓	✓	✓
	Power Reverse	✓	✓	✓	✓
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	-	-	-	-
	-40 ~ 75°C (-40 ~ 167°F)	✓	-40~70°C	-40~70°C	-40~70°C
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-
Certifications	CE	✓	✓	✓	✓
	FCC	✓	✓	✓	✓
	UL/cUL 60950-1	-	-	-	-
	Class 1, Division 2	-	-	-	-
	UL61010	-	-	-	-
	Others	EN50155	EN50155	EN50155	EN50155

EN50155 Ethernet Switches





Model Name		EKI-9508E-MPH EKI-9508E-MPL	EKI-9512 EKI-9512P	EKI-9512D EKI-9512DP	EKI-9516 EKI-9516P	EKI-9516D EKI-9516DP
Description		EN 50155 8-port Managed Ethernet Switch/With PoE	EN 50155 12-port Full Gigabit Managed Ethernet Switch/With PoE + PoE+	EN 50155 12-port Managed Ethernet Switch /With PoE/ PoE+	EN 50155 16-port Full Gigabit Managed Ethernet Switch/With PoE/PoE+	EN 50155 16-port Managed Ethernet Switch/With PoE/PoE+
Interface	Ports Number	8	12	12	16	16
	10/100Base-T (X)	-	-	12(EKI-9512D) 4(EKI-9512DP)	-	16(EKI-9516D) 4(EKI-9516DP)
	100BaseFX	-	-	-	-	-
	10/100/1000Base-T (X)	-	12(EKI-9512) 4(EKI-9512P)	-	16(EKI-9516) 4(EKI-9516P)	-
	1000Base-SX/LX/LHX/XD/ZX/EZX	-	-	-	-	-
	PoE (10/100 Mbps)	8	-	8(EKI-9512DP)	-	12(EKI-9516DP)
	PoE (10/100/1000 Mbps)	-	8(EKI-9512P)	-	12(EKI-9516P)	-
	DI/DO	-	-	-	-	-
	Console	✓	✓	✓	✓	✓
Network Management	Redundancy	✓	✓	✓	✓	✓
	Diagnostics	✓	✓	✓	✓	✓
	VLAN	✓	✓	✓	✓	✓
	Configuration	✓	✓	✓	✓	✓
	SNMP	✓	✓	✓	✓	✓
	Security	✓	✓	✓	✓	✓
	Traffic Control	✓	✓	✓	✓	✓
Power	12 ~ 48 V DC	-	-	-	-	-
	24 ~ 110 V DC	EKI-9508E-MPL: 24~48V DC EKI-9508G-MPH: 72~110V DC	EKI-9512P-LV: 24~48V DC EKI-9512P-HV: 72~110V DC EKI-9512-WV: 24~110V DC	EKI-9512DP-LV: 24~48V DC EKI-9512DP-HV: 72~110V DC EKI-9512D-WV: 24~110V DC	EKI-9516P-LV: 24~48V DC EKI-9516P-HV: 72~110V DC EKI-9516-WV: 24~110V DC	EKI-9516DP-LV: 24~48V DC EKI-9516DP-HV: 72~110V DC EKI-95126-WV: 24~110V DC
	100 ~ 240 V AC	-	-	-	-	-
	Relay Output	-	✓	✓	✓	✓
Mechanism	DIN-rail Mount	-	-	-	-	-
	Wall Mount	✓	✓	✓	✓	✓
	Rack Mount	-	-	-	-	-
	IP Level	IP40	IP67	IP67	IP67	IP67
Protection	ESD (Ethernet)	✓	✓	✓	✓	✓
	Surge (EFT for power)	✓	✓	✓	✓	✓
	Power Reverse	✓	✓	✓	✓	✓
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	-	-	-	-	-
	-40 ~ 75°C (-40 ~ 167°F)	-40~70°C	✓	✓	✓	✓
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-	-
Certifications	CE	✓	✓	✓	✓	✓
	FCC	✓	✓	✓	✓	✓
	UL/cUL 60950-1	-	-	-	-	-
	Class 1, Division 2	-	-	-	-	-
	UL61010	-	-	-	-	-
	Others	EN50155	EN50155	EN50155	EN50155	EN50155

L3 Managed Switches

Model Name		EKI-9728G-4X8CI	EKI-9628G-4CI	EKI-9612G-4FI
Description		L3 28-port Managed Switch w/ 4 x 10GbE ports	L3 28-port Managed Switch	L3 12-port Managed Switch
Interface	Ports Number	28	28	12
	10/100Base-T (X)	-	-	-
	100BaseFX	-	-	-
	10/100/1000Base-T (X)	16+8 (combo)	24+4 (combo)	8
	1000Base-SX/LX/ LHX/XD/ZX/EZX	8 (combo)	4 (combo)	4 x SFP
	PoE (10/100 Mbps)	-	-	-
	PoE (10/100/1000 Mbps)	-	-	-
	HSR/PRP	4	-	-
	Console	✓	✓	✓
Network Management	Redundancy	✓	✓	✓
	Diagnostics	✓	✓	✓
	VLAN	✓	✓	✓
	Configuration	✓	✓	✓
	SNMP	✓	✓	✓
	Security	✓	✓	✓
	Traffic Control	✓	✓	✓
Power	12 ~ 48 V DC	-	✓	✓
	24 ~ 110 V DC	-	-	-
	100 ~ 240 V AC	90~264 VAC	-	▣
	Relay Output	-	-	-
Mechanism	DIN-rail Mount	-	-	✓
	Wall Mount	-	-	-
	Rack Mount	✓	✓	-
	IP Level	IP30	IP30	IP30
Protection	ESD (Ethernet)	✓	✓	✓
	Surge (EFT for power)	✓	✓	✓
	Power Reverse	✓	✓	✓
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	-	-	-
	-40 ~ 75°C (-40 ~ 167°F)	✓	✓	✓
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-
Certifications	CE	✓	✓	✓
	FCC	✓	✓	✓
	UL/cUL 60950-1	-	-	-
	Class 1, Division 2	-	-	-
	UL61010	-	✓	✓
Others		-	-	-

IEC 61850-3 Managed Industrial Ethernet Switches

Model Name		EKI-9228G-20FOI EKI-9228G-20FMI	EKI-9226G-20FOI EKI-9226G-20FMI	EKI-9213E-2CPHR
Description		28-port Full Giga Managed Switch	26-port Full Giga Managed Switch	13-port Managed Switch support HSR/ PRP
Interface	Ports Number	28	26	13
	10/100Base-T (X)	-	-	8
	100BaseFX	-	-	-
	10/100/1000Base-T (X)	24+4 (Combo)	20	-
	1000Base-SX/LX/ LHX/XD/ZX/EZX	4 x SFP(Combo)	6 x SFP	3 x SFP
	PoE (10/100 Mbps)	-	-	-
	PoE (10/100/1000 Mbps)	-	-	-
	HSR/PRP	-	-	2 x RJ-45/SFP combo
	Console	✓	✓	✓
Network Management	Redundancy	✓	✓	✓
	Diagnostics	✓	✓	✓
	VLAN	✓	✓	✓
	Configuration	✓	✓	✓
	SNMP	✓	✓	✓
	Security	✓	✓	✓
	Traffic Control	✓	✓	✓
Power	12 ~ 48 V DC	EKI-9228G-20FMI (48 VDC)	EKI-9226G-20FMI (48 VDC)	✓
	24 ~ 110 V DC	-	-	-
	100 ~ 240 V AC	EKI-9228G-20FMI (90 ~ 264 VAC)	EKI-9226G-20FOI (100~240 VAC)	-
	Relay Output	✓	✓	✓
Mechanism	DIN-rail Mount	-	-	✓
	Wall Mount	-	-	✓
	Rack Mount	P	P	P
	IP Level	IP30	IP30	IP30
Protection	ESD (Ethernet)	✓	✓	✓
	Surge (EFT for power)	✓	✓	✓
	Power Reverse	✓	✓	✓
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	-	-	-
	-40 ~ 75°C (-40 ~ 167°F)	-	-40~70°C	✓
	-40 ~ 85°C (-40 ~ 185°F)	✓	-	-
Certifications	CE	✓	✓	✓
	FCC	✓	✓	✓
	UL/cUL 60950-1	-	✓	✓
	Class 1, Division 2	-	-	-
	UL61010	✓	-	-
Others		IEC 618500-3	IEC 618500-3	IEC 618500-3

Managed Ethernet Switches

Model Name		EKI-7428G-4FA	EKI-7428G-20FA	EKI-7708G-2FVI	EKI-7710E-2C EKI-7710E-2CI	EKI-7710G-2C EKI-7710G-2CI	EKI-7712E-4F EKI-7712E-4FI	EKI-7712G-2FVI	EKI-7712G-4F EKI-7712G-4FI
Description		24Giga+4SFP Giga ports Managed Redundant Switch w/ AC Input	8Giga+20SFP Giga ports Managed Redundant Switch w/ AC Input	4Giga+2VDSL+2SFP Giga ports Managed Redundant Industrial Switch	8FE+2G Port Gigabit Managed Redundant Industrial Switch	8G+2G Port Gigabit Managed Redundant Industrial Switch/with Wide Temperature	8FE+4G SFP Port Gigabit Managed Redundant Industrial Switch/with Wide Temperature	8Giga+2VDSL+2SFP Giga ports Managed Redundant Industrial Switch	8G+4G SFP Port Gigabit Managed Redundant Industrial Switch/with Wide Temperature
Interface	Ports Number	28	28	8	10	10	12	12	12
	10/100Base-T (X)	-	-	-	8	-	-		-
	100BaseFX	-	-	-	-	-	-		-
	10/100/1000Base-T (X)	24	8	4	2	8	8	8	8
	1000Base-SX/LX/LHX/ XD/ZX/EZX	4	20	4(2SFP+2VDSL)	2	2	4	4(2SFP+2VDSL)	4
	PoE (10/100 Mbps)	-	-	-	-	-	-	-	-
	PoE (10/100/1000 Mbps)	-	-	-	-	-	-	-	-
	HSR/PRP	-	-	-	-	-	-	-	-
	Console	✓	✓	✓	✓	✓	✓	✓	✓
Network Management	Redundancy	✓	✓	✓	✓	✓	✓	✓	✓
	Diagnostics	✓	✓	✓	✓	✓	✓	✓	✓
	VLAN	✓	✓	✓	✓	✓	✓	✓	✓
	Configuration	✓	✓	✓	✓	✓	✓	✓	✓
	SNMP	✓	✓	✓	✓	✓	✓	✓	✓
	Security	✓	✓	✓	✓	✓	✓	✓	✓
	Traffic Control	✓	✓	✓	✓	✓	✓	✓	✓
Power	12 ~ 48 V DC	-	-	✓	✓	✓	✓	✓	✓
	24 ~ 110 V DC	-	-	-	-	-	-	-	-
	100 ~ 240 V AC	✓	✓	-	-	-	-	-	-
	Relay Output	-	-	✓	-	-	-	✓	-
Mechanism	DIN-rail Mount	-	-	✓	✓	✓	✓	✓	✓
	Wall Mount	-	-	✓	✓	✓	✓	✓	✓
	Rack Mount	✓	✓	-	-	-	-	-	-
	IP Level	-	-	IP30	IP30	IP30	IP30	IP 30	IP30
Protection	ESD (Ethernet)	✓	✓	✓	✓	✓	✓	✓	✓
	Surge (EFT for power)	✓	✓	✓	✓	✓	✓	✓	✓
	Power Reverse	✓	✓	✓	✓	✓	✓	✓	✓
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	-10 ~ 55°C (14 - 131°F)	-10 ~ 55°C (14 - 131°F)	-	✓	✓	✓	-	✓
	-40 ~ 75°C (-40 ~ 167°F)	-	-	✓	✓	✓	✓	✓	✓
	-40 ~ 85°C (-40 ~ 185°F)	-	✓	-	-	-	-	-	-
Certifications	CE	✓	✓	✓	✓	✓	✓	✓	✓
	FCC	✓	✓	✓	✓	✓	✓	✓	✓
	UL/cUL 60950-1	✓	✓	-	-	-	-	-	-
	Class 1, Division 2	-	-	-	-	-	-	-	-
	UL61010	-	-	-	✓	✓	✓	-	✓
Others		-	-	UL 61010	NEMA TS2 EN50121-4	NEMA TS2 EN50121-4	NEMA TS2 EN50121-4	UL 61010	NEMA TS2 EN50121-4

Managed Ethernet Switches

Model Name		EKI-7720E-4F EKI-7720E-4FI	EKI-7720G-4F EKI-7720G-4FI	EKI-7706E-2F/I	EKI-7706G-2F/I	EKI-7708E-4F/I	EKI-7708G-4F/I	EKI-7716E-4F/I	EKI-7716G-4F/I
Description		16FE+4G SFP Port Gigabit Managed Redundant Industrial Switch with Wide Temperature	16G+4G SFP Port Gigabit Managed Redundant Industrial Switch/ with Wide Temperature	4FE+2SFP Giga ports Managed Redundant Industrial Switch	4Giga+2SFP Giga ports Managed Redundant Industrial Switch	4FE+4SFP Giga ports Managed Redundant Industrial Switch	4Giga+4SFP Giga ports Managed Redundant Industrial Switch	8FE+4SFP+4G Combo port Managed Redundant Industrial Switch	8GE+4SFP+4G Combo port Managed Redundant Industrial Switch
Interface	Ports Number	20	20	6	6	8	8	16	16
	10/100Base-T (X)	-	-	4	-	4	-	8 + 4 (Combo)	-
	100BaseFX	-	-						
	10/100/1000Base-T (X)	16	16	-	4	-	4	-	8 + 4 (Combo)
	1000Base-SX/LX/ LHX/XD/ZX/EZX	4	4	2	2	4	4	4 + 4 (Combo)	4 + 4 (Combo)
	PoE (10/100 Mbps)	-	-	-	-	-	-	-	-
	PoE (10/100/1000 Mbps)	-	-	-	-	-	-	-	-
	DI/DO	-	-	-	-	-	-	-	-
	Console	✓	✓	✓	✓	✓	✓	✓	✓
Network Management	Redundancy	✓	✓	✓	✓	✓	✓	✓	✓
	Diagnostics	✓	✓	✓	✓	✓	✓	✓	✓
	VLAN	✓	✓	✓	✓	✓	✓	✓	✓
	Configuration	✓	✓	✓	✓	✓	✓	✓	✓
	SNMP	✓	✓	✓	✓	✓	✓	✓	✓
	Security	✓	✓	✓	✓	✓	✓	✓	✓
	Traffic Control	✓	✓	✓	✓	✓	✓	✓	✓
Power	12 ~ 48 V DC	✓	✓	✓	✓	✓	✓	✓	✓
	24 ~ 110 V DC	-	-	-	-	-	-	-	-
	100 ~ 240 V AC	-	-	-	-	-	-	-	-
	Relay Output	-	-	-	-	-	-	-	-
Mechanism	DIN-rail Mount	✓	✓	✓	✓	✓	✓	✓	✓
	Wall Mount	✓	✓	✓	✓	✓	✓	✓	✓
	Rack Mount	-	-	-	-	-	-	-	-
	IP Level	IP30	IP30	-	-	-	-	-	-
Protection	ESD (Ethernet)	✓	✓	✓	✓	✓	✓	✓	✓
	Surge (EFT for power)	✓	✓	✓	✓	✓	✓	✓	✓
	Power Reverse	✓	✓	✓	✓	✓	✓	✓	✓
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	✓	✓	EKI-7706E-2F	EKI-7706G-2F	EKI-7708E-4F	EKI-7708G-4F	EKI-7716E-4F	EKI-7716G-4F
	-40 ~ 75°C (-40 ~ 167°F)	✓	✓	EKI-7706E-2FI	EKI-7706G-2FI	EKI-7708E-4FI	EKI-7708G-4FI	EKI-7716E-4FI	EKI-7716G-4FI
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-	-	-	-	-
Certifications	CE	✓	✓	✓	✓	✓	✓	✓	✓
	FCC	✓	✓	✓	✓	✓	✓	✓	✓
	UL/cUL 60950-1	-	-	-	-	-	-	-	-
	Class 1, Division 2	-	-	-	-	-	-	-	-
	UL61010	✓	✓	-	-	-	-	-	-
	Others	NEMA TS2 EN50121-4	NEMA TS2 EN50121-4	UL 61010	UL 61010	UL 61010	UL 61010	UL 61010	UL 61010

Managed Protocol Switches

Model Name		EKI-5526/I-EI EKI-5528/I-EI	EKI-5526/I-PN EKI-5528/I-PN	EKI-5526/I-MB EKI-5528/I-MB	EKI-5626C/I-EI EKI-5629C/I-EI	EKI-5626C/I-PN EKI-5629C/I-PN	EKI-5626C/I-MB EKI-5629C/I-MB
Description		16/8 port Entry-Level Managed Switch Supporting EtherNet/IP	16/8 port Entry-Level Managed Switch Supporting PROFINET	16/8 port Entry-Level Managed Switch Supporting Modbus	18/10 port Entry-Level Managed Switch Supporting EtherNet/IP	18/10 port Entry-Level Managed Switch Supporting PROFINET	18/10 port Entry-Level Managed Switch Supporting Modbus
Interface	Ports Number	16/8	16/8	16/8	16/8	16/8	16/8
	10/100Base-T (X)	16/8	16/8	16/8	16/8	16/8	16/8
	100BaseFX	-	-	-	-	-	-
	10/100/1000Base-T (X)	-	-	-	2/2	2/2	2/2
	1000Base-SX/LX/LHX/ XD/ZX/EZX	-	-	-	2/2	2/2	2/2
	PoE (10/100 Mbps)	-	-	-	-	-	-
	PoE (10/100/1000 Mbps)	-	-	-	-	-	-
	DI/DO	-	-	-	-	-	-
	Console	-	-	-	-	-	-
Network Management	Redundancy	✓	✓	✓	✓	✓	✓
	Diagnostics	✓	✓	✓	✓	✓	✓
	VLAN	✓	✓	✓	✓	✓	✓
	Configuration	✓	✓	✓	✓	✓	✓
	SNMP	✓	✓	✓	✓	✓	✓
	Security	✓	✓	✓	✓	✓	✓
	Traffic Control	✓	✓	✓	✓	✓	✓
Power	12 ~ 48 V DC	✓	✓	✓	✓	✓	✓
	24 ~ 110 V DC	-	-	-	-	-	-
	100 ~ 240 V AC	-	-	-	-	-	-
	Relay Output	✓	✓	✓	✓	✓	✓
Mechanism	DIN-rail Mount	✓	✓	✓	✓	✓	✓
	Wall Mount	✓	✓	✓	✓	✓	✓
	Rack Mount	-	-	-	-	-	-
	IP Level	IP30	IP30	IP30	IP30	IP30	IP30
Protection	ESD (Ethernet)	✓	✓	✓	✓	✓	✓
	Surge (EFT for power)	✓	✓	✓	✓	✓	✓
	Power Reverse	✓	✓	✓	✓	✓	✓
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	✓	✓	✓	✓	✓	✓
	-40 ~ 75°C (-40 ~ 167°F)	✓	✓	✓	✓	✓	✓
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-	-	-
Certifications	CE	✓	✓	✓	✓	✓	✓
	FCC	✓	✓	✓	✓	✓	✓
	UL/cUL 60950-1	-	-	-	-	-	-
	Class 1, Division 2	✓	✓	✓	✓	✓	✓
	UL61010	✓	✓	✓	✓	✓	✓
	Others	-	-	-	-	-	-

Unmanaged Ethernet Switches

Model Name		EKI-5726FI	EKI-5729FI	EKI-5726I	EKI-5728/I	EKI-5626CI	EKI-5629CI	EKI-5528/I EKI-5525/I
Description		16-port+2 SFP Gigabit Ethernet Switch	8-Port+2 SFP Gigabit Ethernet Switch	16-port Gigabit Ethernet Switch	5/8-port Gigabit Ethernet Switch	16FE + 2GE Combo Ethernet Switch	8FE + 2GE Combo Ethernet Switch	8/5-port Fast Ethernet Switch
Interface	Ports Number	16	8	16	5/8	18	10	8/5
	10/100Base-T (X)	-	-	-	-	16	8	8/5
	100BaseFX	✓	✓	-	-	-	-	-
	10/100/1000Base-T (X)	16	8	16	5/8	-	-	-
	1000Base-SX/LX/LHX/XD/ZX/EZX	✓	✓	-	-	2	2	-
	PoE (10/100 Mbps)	-	-	-	-	-	-	-
	PoE (10/100/1000 Mbps)	-	-	-	-	-	-	-
	DI/DO	-	-	-	-	-	-	-
	Console	✓	✓	-	-	-	-	-
Network Management	Redundancy	-	-	-	-	-	-	-
	Diagnostics	-	-	-	-	-	-	-
	VLAN	-	-	-	-	-	-	-
	Configuration	✓	✓	✓	-	-	-	-
	SNMP	✓	✓	✓	✓	-	-	-
	Security	-	-	-	-	-	-	-
	Traffic Control	-	-	-	-	-	-	-
Power	12 ~ 48 V DC	✓	✓	✓	✓	✓	✓	✓
	24 ~ 110 V DC	-	-	-	-	-	-	-
	100 ~ 240 V AC	-	-	-	-	-	-	-
	Relay Output	✓	✓	✓	✓	✓	✓	✓
Mechanism	DIN-rail Mount	✓	✓	✓	✓	✓	✓	✓
	Wall Mount	✓	✓	✓	✓	✓	✓	✓
	Rack Mount	-	-	-	-	-	-	-
	IP Level	IP30	IP30	IP30	IP30	IP30	IP30	IP30
Protection	ESD (Ethernet)	✓	✓	✓	✓	✓	✓	✓
	Surge (EFT for power)	✓	✓	✓	✓	✓	✓	✓
	Power Reverse	✓	✓	✓	✓	✓	✓	✓
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	-	-	-	-	-	-	-
	-40 ~ 75°C (-40 ~ 167°F)	✓	✓	✓	✓	✓	✓	✓
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-	-	-	-
Certifications	CE	✓	✓	✓	✓	✓	✓	✓
	FCC	✓	✓	✓	✓	✓	✓	✓
	UL/cUL 60950-1	-	-	-	-	-	-	-
	Class 1, Division 2	✓	✓	✓	✓	✓	✓	✓
	UL61010	✓	✓	✓	✓	✓	✓	✓
	Others	-	-	-	-	-	-	-

Unmanaged Ethernet Switches

Model Name		EKI-5525SI/MI Series	EKI-5524SSI/MMI Series	EKI-2728M/MI	EKI-2725/I	EKI-2728/I
Description		4-port +1x100FX port (Single/Multi-mode, SC/ST type), Fast Ethernet Switch	4-port + 2x100FX port (Single/Multimode, SC/ST type), Fast Ethernet Switch	6G+2G Multi-Mode Unmanaged Ethernet Switch	5-port Gigabit Unmanaged Industrial Ethernet Switch	8-port Gigabit Unmanaged Industrial Ethernet Switch
Interface	Ports Number	4	6	8	5	8
	10/100Base-T (X)	4	4	-	-	-
	100BaseFX	1	2	-	-	-
	10/100/1000Base-T (X)	-	-	6	5	8
	1000Base-SX/LX/LHX/XD/ZX/EZX	-	-	2	-	-
	PoE (10/100 Mbps)	-	-	-	-	-
	PoE (10/100/1000 Mbps)	-	-	-	-	-
	DI/DO	-	-	-	-	-
	Console	-	-	-	-	-
Network Management	Redundancy	-	-	-	-	-
	Diagnostics	-	-	-	-	-
	VLAN	-	-	-	-	-
	Configuration	-	-	-	-	-
	SNMP	-	-	-	-	-
	Security	-	-	-	-	-
	Traffic Control	-	-	-	-	-
Power	12 ~ 48 V DC	✓	✓	✓	✓	✓
	24 ~ 110 V DC	-	-	-	-	-
	100 ~ 240 V AC	-	-	-	-	-
	Relay Output	✓	✓	✓	✓	✓
Mechanism	DIN-rail Mount	✓	✓	✓	✓	✓
	Wall Mount	✓	✓	✓	✓	✓
	Rack Mount	-	-	-	-	-
	IP Level	IP30	IP30	IP30	IP30	IP30
Protection	ESD (Ethernet)	✓	✓	✓	✓	✓
	Surge (EFT for power)	✓	✓	✓	✓	✓
	Power Reverse	✓	✓	✓	✓	✓
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	-	-	EKI-2728M	EKI-2725	EKI-2728
	-40 ~ 75°C (-40 ~ 167°F)	✓	✓	EKI-2728MI	EKI-2725I	EKI-2728I
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-	-
Certifications	CE	✓	✓	✓	✓	✓
	FCC	✓	✓	✓	✓	✓
	UL/cUL 60950-1	-	-	-	✓	✓
	Class 1, Division 2	✓	✓	✓	-	-
	UL61010	✓	✓	✓	-	-
	Others	-	-	-	-	-

Unmanaged Ethernet Switches






Model Name		EKI-2428G-4FA	EKI-2728S/2728SI	EKI-2525M/S	EKI-2526M/S	EKI-2525LI	EKI-2428G-4CI
Description		24Giga+4SFP Giga ports Unmanaged Switch w/ AC Input	6GE+2G Single-Mode Fiber Port Unmanaged Ethernet Switch	4+1 100FX Port Multi-mode/ Single-mode Unmanaged Industrial Ethernet Switch	4+2 100FX Port Multi-mode/ Single-mode Industrial Ethernet Switch	5Fast Ethernet ports Slim Type Unmanaged Switch	
Interface	Ports Number	28	8	5	6	5	28
	10/100Base-T (X)	-	-	4	4	5	-
	100BaseFX	-	-	1	2	-	-
	10/100/1000Base-T (X)	24	6	-	-	-	24
	1000Base-SX/LX/LHX/ XD/ZX/EZX	4	2 x SC Single Mode	-	-	-	4
	PoE (10/100 Mbps)	-	-	-	-	-	-
	PoE (10/100/1000 Mbps)	-	-	-	-	-	-
	DI/DO	-	-	-	-	-	-
	Console	-	-	-	-	-	-
Network Management	Redundancy	-	-	-	-	-	-
	Diagnostics	-	-	-	-	-	-
	VLAN	-	-	-	-	-	-
	Configuration	-	-	-	-	-	-
	SNMP	-	-	-	-	-	-
	Security	-	-	-	-	-	-
	Traffic Control	-	-	-	-	-	-
Power	12 ~ 48 V DC	-	✓	✓	✓	✓	✓
	24 ~ 110 V DC	-	-	-	-	-	-
	100 ~ 240 V AC	P	-	-	-	-	-
	Relay Output	-	✓	✓	✓	-	-
Mechanism	DIN-rail Mount	-	✓	✓	✓	✓	✓
	Wall Mount	-	✓	✓	✓	✓	✓
	Rack Mount	P	-	-	-	-	-
	IP Level	IP20	IP30	IP30	IP30	IP40	IP40
Protection	ESD (Ethernet)	✓	✓	✓	✓	✓	✓
	Surge (EFT for power)	✓	✓	✓	✓	✓	✓
	Power Reverse	-	✓	✓	✓	✓	-
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	0 ~ 55°C (32 - 131°F)	EKI-2728S	✓	✓	-	-
	-40 ~ 75°C (-40 ~ 167°F)	-	EKI-2728SI	-	-	✓	-40~70°C
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-	-	-
Certifications	CE	✓	✓	✓	✓	✓	✓
	FCC	✓	✓	✓	✓	✓	✓
	UL/cUL 60950-1	-	✓	✓	✓	✓	-
	Class 1, Division 2	-	-	-	-	-	-
	UL61010	-	-	-	-	-	✓
	Others	-	-	-	-	-	-

Power Over Ethernet (PoE) Switches






Model Name		EKI-7708G-4FP/I	EKI-7708G-2FVPI	EKI-7708E-4FP/I	EKI-7710G-2CPI EKI-7710G-2CP	EKI-7710E-2CP EKI-7710E-2CPI	EKI-7712G-4FP EKI-7712G-4FPI
Description		4Giga+4SFP Giga ports Managed Redundant Industrial PoE Switch	4Giga+2VDSL+2SFP Giga ports Managed Redundant Industrial PoE Switch	4FE+4SFP Giga ports Managed Redundant Industrial PoE Switch	8G+2G Port Gigabit Managed Redundant Industrial PoE Switch	8FE+2G Port Gigabit Managed Redundant Industrial PoE Switch	8G+4G Port Gigabit Managed Redundant Industrial PoE Switch
Interface	Ports Number	8	8	8	10	10	12
	10/100Base-T (X)	-	4	-	-	-	-
	100BaseFX	-	-	-	-	-	-
	10/100/1000Base-T (X)	-	-	-	8	8	8
	1000Base-SX/LX/LHX/ XD/ZX/EZX	4	4(2SFP+2VDSL)	4	2	2	4
	PoE (10/100 Mbps)	-	-	4	-	8	-
	PoE (10/100/1000 Mbps)	4	-	-	8	-	8
	DI/DO	-	-	-	-	-	-
	Console	✓	✓	✓	✓	✓	✓
Network Management	Redundancy	✓	✓	✓	✓	✓	✓
	Diagnostics	✓	✓	✓	✓	✓	✓
	VLAN	✓	✓	✓	✓	✓	✓
	Configuration	✓	✓	✓	✓	✓	✓
	SNMP	✓	✓	✓	✓	✓	✓
	Security	✓	✓	✓	✓	✓	✓
	Traffic Control	✓	✓	✓	✓	✓	✓
Power	12 ~ 48 V DC	48 VDC	48 VDC	48 VDC	✓	✓	48 VDC
	24 ~ 110 V DC	-	-	-	-	-	-
	100 ~ 240 V AC	-	-	-	-	-	-
	Relay Output	✓	✓	✓	-	-	✓
Mechanism	DIN-rail Mount	✓	✓	✓	✓	✓	✓
	Wall Mount	✓	✓	✓	✓	✓	✓
	Rack Mount	-	-	-	-	-	-
	IP Level	-	30	-	IP30	IP30	IP30
Protection	ESD (Ethernet)	✓	✓	✓	✓	✓	✓
	Surge (EFT for power)	✓	✓	✓	✓	✓	✓
	Power Reverse	✓	✓	✓	✓	✓	✓
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	EKI-7708G-4FP	-	EKI-7708E-4FP	7710G-2CP	7710E-2CP	7712G-4F
	-40 ~ 75°C (-40 ~ 167°F)	EKI-7708G-4FPI	P	EKI-7708E-4FPI	7710G-2CPI	7710E-2CPI	7712G-4FI
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-	-	-
Certifications	CE	✓	✓	✓	✓	✓	✓
	FCC	✓	✓	✓	✓	✓	✓
	UL/cUL 60950-1	-	-	-	-	-	-
	Class 1, Division 2	-	-	-	-	-	-
	UL61010	-	-	-	✓	✓	✓
	Others	UL 61010	UL 61010	UL 61010	-	-	-

Power Over Ethernet (PoE) Switches

Model Name		EKI-7712G-2FVPI	EKI-5624P/5624PI	EKI-5729P/5729PI	EKI-2726FHPI	EKI-2528PAI	EKI-2525P	EKI-2706E/GFPI	EKI-2706G/GFPI
Description		8Giga+2VDSL+2SFP Giga ports Managed Redundant Industrial PoE Switch	4FE PoE+2G Unmanaged Ethernet Switch, IEEE802.3af/ at, E-Mark, 12V~24VDC	8GE PoE+2G Unmanaged Ethernet Switch, IEEE802.3af/ at, E-Mark, 12V~24VDC	4G+2 SFP W/ 4 IEEE 802.3 High Power PoE Industrial Wide Temperature Switch	8-port Industrial PoE Switch with 24/48 V DC Power Input and Wide Temperature	5-port Industrial PoE Switch	4FE PoE+1FE+1G SFP Unmanaged Industrial Switch	4FE PoE+1GE+1G SFP Unmanaged Industrial Switch
Interface	Ports Number	12			6	8	5	6	6
	10/100Base-T (X)	-			-	4	1	1	-
	100BaseFX	-			-	-	-	-	-
	10/100/1000Base-T (X)	8			4	-	-	-	1
	1000Base-SX/LX/LHX/ XD/ZX/EZX	4(2SFP+2VDSL)			2	-	-	1	1
	PoE (10/100 Mbps)	-			4 (PoE+, 30W)	4	4	4	4
	PoE (10/100/1000 Mbps)	-			-	-	-	-	-
	DI/DO	-			-	-	-	-	-
	Console	✓			-	-	-	-	-
Network Management	Redundancy	✓			-	-	-	-	-
	Diagnostics	✓			-	-	-	-	-
	VLAN	✓			-	-	-	-	-
	Configuration	✓			-	-	-	-	-
	SNMP	✓			-	-	-	-	-
	Security	✓			-	-	-	-	-
	Traffic Control	✓			-	-	-	-	-
Power	12 ~ 48 V DC	48 VDC			48 VDC	24/48 VDC	48 VDC	48 VDC	48 VDC
	24 ~ 110 V DC	-			-	-	-	-	-
	100 ~ 240 V AC	-			-	-	-	-	-
	Relay Output	✓			✓	✓	✓	✓	✓
Mechanism	DIN-rail Mount	✓			✓	✓	✓	✓	✓
	Wall Mount	✓			✓	✓	✓	✓	✓
	Rack Mount	-			-	-	-	-	-
	IP Level	30			IP30	IP30	IP30	IP30	IP30
Protection	ESD (Ethernet)	✓			✓	✓	✓	✓	✓
	Surge (EFT for power)	✓			✓	✓	✓	✓	✓
	Power Reverse	✓			✓	✓	✓	✓	✓
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	-			-	-	✓	-	-
	-40 ~ 75°C (-40 ~ 167°F)	✓			✓	✓	-	✓	✓
	-40 ~ 85°C (-40 ~ 185°F)	-			-	-	-	-	-
Certifications	CE	✓			✓	✓	✓	✓	✓
	FCC	✓			✓	✓	✓	✓	✓
	UL/cUL 60950-1	-			-	-	✓	-	-
	Class 1, Division 2	-			-	-	-	-	-
	UL61010	-			✓	✓	-	-	-
	Others	UL 61010			-	-	-	-	-

Power Over Ethernet (PoE) Switches

Model Name		EKI-2526PI	EKI-2525PA
Description		6-port Industrial PoE Switch with Wide Temperature	5-port Industrial PoE Switch with 24/48 V DC Power Input
Interface	Ports Number	6	5
	10/100Base-T (X)	2	1
	100BaseFX	-	-
	10/100/1000Base-T (X)	-	-
	1000Base-SX/LX/LHX/ XD/ZX/EZX	-	-
	PoE (10/100 Mbps)	4	4
	PoE (10/100/1000 Mbps)	-	-
	DI/DO	-	-
	Console	-	-
Network Management	Redundancy	-	-
	Diagnostics	-	-
	VLAN	-	-
	Configuration	-	-
	SNMP	-	-
	Security	-	-
	Traffic Control	-	-
Power	12 ~ 48 V DC	48 VDC	24/48 VDC
	24 ~ 110 V DC	-	-
	100 ~ 240 V AC	-	-
	Relay Output	✓	✓
Mechanism	DIN-rail Mount	✓	✓
	Wall Mount	✓	✓
	Rack Mount	-	-
	IP Level	IP30	IP30
Protection	ESD (Ethernet)	✓	✓
	Surge (EFT for power)	✓	✓
	Power Reverse	✓	✓
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	-	✓
	-40 ~ 75°C (-40 ~ 167°F)	✓	-
	-40 ~ 85°C (-40 ~ 185°F)	-	-
Certifications	CE	✓	✓
	FCC	✓	✓
	UL/cUL 60950-1	✓	-
	Class 1, Division 2	-	-
	UL61010	-	✓
	Others	-	-

Media Converters

Model Name		EKI-2741F/FI/ SX/SXI/LX/LXI	EKI-2541M/MI/S/SI
Description		10/100/1000TX to Fiber Optic Gigabit Industrial Media Converters	10/100TX to Multi-mode / Single-mode SC Type Fiber Optic Industrial Media Converters
Interface	Ports Number	2	2
	10/100Base-T (X)	-	1
	100BaseFX	-	1
	10/100/1000Base-T (X)	1	-
	1000Base-SX/LX/LHX/ XD/ZX/EZX	1	-
	PoE (10/100 Mbps)	-	-
	PoE (10/100/1000 Mbps)	-	-
	DI/DO	-	-
	Console	-	-
Network Management	Redundancy	-	-
	Diagnostics	-	-
	VLAN	-	-
	Configuration	-	-
	SNMP	-	-
	Security	-	-
	Traffic Control	-	-
Power	12 ~ 48 V DC	✓	✓
	24 ~ 110 V DC	-	-
	100 ~ 240 V AC	-	-
	Relay Output	✓	✓
Mechanism	DIN-rail Mount	✓	✓
	Wall Mount	✓	✓
	Rack Mount	-	-
	IP Level	IP30	IP30
Protection	ESD (Ethernet)	✓	✓
	Surge (EFT for power)	✓	✓
	Power Reverse	✓	✓
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	EKI-2741F/SX/LX	EKI-2541M
	-40 ~ 75°C (-40 ~ 167°F)	EKI-2741FI/SXI/LXI	EKI-2541MI/SI
	-40 ~ 85°C (-40 ~ 185°F)	-	-
Certifications	CE	✓	✓
	FCC	✓	✓
	UL/cUL 60950-1	✓	✓
	Class 1, Division 2	✓	✓
	UL 508	✓	✓
	Others	-	-

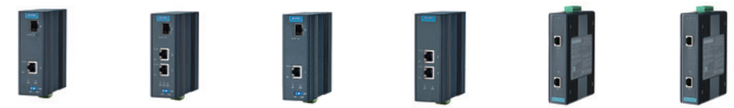
Media Converters

Model name	EKI-2741SL/ML	EKI-2741FL	EKI-2541SL/ML
Standard	IEEE 802.3, 802.3u, 802.3ab, 802.3x, 802.3z	IEEE 802.3, 802.3u, 802.3ab, 802.3x, 802.3z	IEEE 802.3, 802.3u, 802.3x
RJ45 Port Interface	1 x 10/100/1000Base-T(X)	1 x 10/100/1000Base-T(X)	1 x 10/100Base-T(X)
RJ45 Transmission Distance	1000 m	1000 m	100 m
Fiber Port Interface	SL: Singel Mode ML: Multi Mode	SFP	SL: Singel Mode ML: Multi Mode
Fiber Port Connector	1	1	1
Fiber Transmission Distance	SL: Up to 10km ML: Up to 550m	-	SL: Up to 30km ML: Up to 2km
Switch Fabric Speed	1.25Gbps	1.25Gbps	125Mbps
Jumbo Frame	9216 bytes	9216 bytes	-
Dimensions (W x H x D) mm	22 x 101 x 75 mm	23 x 60 x 75 mm	22 x 101 x 75 mm
Dimensions (W x H x D) mm	75 x 22.6 x 101.2 mm	60.88 x 23 x 75.58 mm	75 x 22.6 x 101.2 mm
Dimensions (W x H x D) inch	2.95" x 0.89" x 3.98"	2.4" x 0.91" x 2.98"	2.95" x 0.89" x 3.98"
IP Grade	IP30	IP30	IP30
Enclosure	Metal	Metal	Metal
Weight	226 g	158 g	213 g
Operating Temperature	0~50°C	0~50°C	0~50°C
Storage Temperature	-40~70°C	-40~70°C	-40~70°C
Relative Humidity (Non-condensing)	5% ~ 90% RH (non-condensing)	5% ~ 90% RH (non-condensing)	5% ~ 90% RH (non-condensing)
Time (25 degree C)	1269493 hours	1031686 hours	1776203 hours
Method	Telcordia(Relax), GB	Telcordia(Relax), GB	Telcordia(Relax), GB
Operating Voltage	90-264 VAC	90-264 VAC	90-264 VAC
Operating Current (DC 5V)	SL: 0.61 A ML: 0.6 A	0.52 A	SL: 0.31 A ML: 0.3 A
Power Consumption (DC 5V)	SL: 3.1 W ML: 3.0W	2.6 W	SL: 1.6 W ML: 1.5 W
Reverse Polarity	Present	Present	Present
Safety	LVD EN60950	LVD EN60950	LVD EN60950
EMC	CE, FCC	CE, FCC	CE, FCC
EMI	EN55024/EN 55032 Class A, FCC Part 15 Subpart B Class A		
EMS	EN 61000-4-2 , EN 61000-4-3 , EN 61000-4-4 , EN 61000-4-5 , EN 61000-4-6 , EN 61000-4-8 , EN61000-4-11		
Freefall	IEC 60068-2-32		
Vibration	IEC 60068-2-6		
Warranty Period	2 years		

VDSL Solution

Model name	EKI-1751	EKI-1751I	EKI-1751PI-M/R
Standard	IEEE 802.3, 802.3u, 802.3x	IEEE 802.3, 802.3u, 802.3x	M: IEEE 802.3, 802.3u, 802.3x R: IEEE 802.3, 802.3u, 802.3x, 802.3af/at
RJ45 Port Interface	1 * 10/100BaseT(X) + 1 * VDSL	2 * RJ45 Etherent port + 1 * M12 Ethernet port	4* RJ45 PoE Port
RJ45 Transmission Distance	100 m	100 m	100 m
RJ45 w/ PoE Quantity	-	-	4
MAC Table Size	1024	2K	-
Packet Buffer Size	1024 byte	1M bit	1M bit
Switch Fabric Speed	100Mbps	100Mbps	100Mbps
Jumbo Frame	-	-	-
Dimensions (W x H x D)	72.5x 22.8 x 96.2 mm	62 x 135 x 106.5 mm	62 x 135 x 106.5 mm
IP Grade	IP30	IP30	IP30
Enclosure	Metal	Metal	Metal
Weight	0.22kg	0.67kg	M: 0.7kg R: 0.75kg
Mounting	Din Rail	Din Rail or Wall Mount	Din Rail or Wall Mount
Operating Temperature	0~45°C (32~113°F)	-40~75°C (-40~167°F)	-40~75°C (-40~167°F)
Storage Temperature	-40~70°C (-40~158°F)	-40~85°C (-40~185°F)	-40~85°C (-40~185°F)
Relative Humidity (Non-condensing)	0 ~ 95%	5 ~ 95%	5 ~ 95%
Time	901,329	225,664	M: 175496 R: 159617
Method	MIL-HDBK-217 FN2	MIL-HDBK-217 FN2	MIL-HDBK-217 FN2
Operating Voltage	12 VDC	12- 48 VDC	48 - 57VDC
Operating Current	400mA	0.5A	2A
Power Consumption	4.2 W (system)	5 W (system)	M: 65 W (system) R: 125 W (system)
Connectors	DC Jack (power)	6-pin removable screw terminal (power & relay)	
Reverse Polarity	N/A	Present	Present
Safety	UL 60950	UL 60950	UL 60950
EMC	CE, FCC	CE, FCC	CE, FCC
EMI	EN 55032 EN 61000-6-4, FCC Part 15 Subpart B EN 61000-6-4, FCC Part 15 Subpart B	EN 55011/ EN 55032 EN 61000-6-4, FCC Part 15 Subpart B	
EMS	EN 61000-4-2 , EN 61000-4-3 , EN 61000-4-4 , EN 61000-4-5 , EN 61000-4-6 , EN 61000-4-8		
Shock	-	IEC 60068-2-27	IEC 60068-2-27
Freefall	-	IEC 60068-2-32	IEC 60068-2-32
Vibration	-	IEC 60068-2-6	IEC 60068-2-6
Warranty Period	5 years	5 years	5 years

Media Converter and Injector



Description	EKI-2741FPI	EKI-2742FPI	EKI-2741FHPI	EKI-2711HPI	EKI-2701HPI	EKI-2701PSI
Connectivity						
10/100/1000Based-Tx,fixed	-	-	-	-	1	1
10/100/1000Base-T PoE, Fixed	1	2	1	2	1	1
Open SFP slot (GbE)	1	1	1	-	-	-
Performance						
Auto MDI/MDI-X	✓	✓	✓	✓	-	-
Auto Negotiation	✓	✓	✓	✓	-	-
Store-and-Forward Switching	✓	✓	✓	✓	-	-
Link Fault Pass-Through (LFP)	✓	-	✓	-	-	-
MTBF	743,594Hrs	717,339Hrs	730,083Hrs	730,337Hrs	1419817Hrs	440,132Hrs
Traffic Control						
Jumbo frame size	10Kbytes	10Kbytes	10Kbytes	10Kbytes	-	-
IEEE 802.3x flow control	✓	✓	✓	✓	-	-
Physical						
"Housing Dimensions (WxHxD) mm"	36.7 x 108.4 x 103.5 mm	36.7 x 108.4 x 103.5 mm	36.7 x 108.4 x 103.5 mm	36.7 x 108.4 x 103.5 mm	37x140x95 mm	37x140x95 mm
Mounting way	DIN-Rail/Wall mount	DIN-Rail/Wall mount	DIN-Rail/Wall mount	DIN-Rail/Wall mount	DIN-Rail/Wall mount	DIN-Rail/Wall mount
IP rating	IP31	IP31	IP31	IP31	IP30	IP30
Power						
Power Input voltage	48VDC	48VDC	48VDC	48VDC	24/48VDC	44~57VDC
Power Consumption	34W	63.5W	63.5W	63.5W	33.36W	17.76W
Reverse protection	✓	✓	✓	✓	✓	✓
Certification						
UL60950-1	-	-	-	-	-	V
UL508	✓	✓	✓	✓	✓	-
UL-C1D2	✓	✓	✓	✓	-	-
FCC	✓	✓	✓	✓	✓	✓
CE	✓	✓	✓	✓	✓	✓

Wireless Access Points/ Client


Model Name		EKI-6331AN	EKI-6332GN
Description		IEEE 802.11 a/n Wi-Fi AP/Client	IEEE 802.11 b/g/n Wi-Fi AP/Client
Interface	IEEE Standard	IEEE 802.11 a/n	802.11 b/g/n
	100BaseFX	✓	✓
	1000BaseFX	-	-
RF	Frequuency	2.4GHz	5GHz
	MIMO	2T2R	2T2R
	Multi-Hopping	✓	✓
	Mobility/Roaming	✓	✓
Operating Mode	Mesh	-	-
	Mobility/ Roaming	-	-
	Multi-Hopping	-	-
	AP/CPE	✓	✓
Power	PoE	Passive 24V	Passive 24V
	Power Input Voltage	24VDC	24VDC
	Redundant DC Power Input	-	-
Mechanism	DIN-rail Mount	-	-
	Wall Mount	-	-
	VESA Mount	-	-
	Pole Mount	✓	✓
	IP Grade	IP55	IP55
Operating Temperature	-20 ~ 70°C (-'4 ~ 158°F)	✓	✓
	-40 ~ 70° C ('-40 ~ 158° F)	-	-
Certifications	CE	✓	✓
	FCC	✓	✓
	Others	Telec, ANATEL	Telec

* Note: Transmit Output Power & Receive Sensitivity are specified on data sheet.

Wireless Devices



Model Name		EKI-1361 EKI-1362	EKI-1361-MB EKI-1362-MB	EKI-6333AC
Description		1/2-port RS-232/422/485 to 802.11a/b/g/n WLAN Serial Device Server	1/2-port RS-232/422/485 to 802.11a/b/g/n WLAN Modbus Gateway	IEEE 802.11 a/b/g/n/ac Wi-Fi AP
Connectivity	10/100Base-TX, Fixed	✓	✓	-
	10/100/1000Based-T, Fixed	-	-	✓
	RS-232 only	-	-	-
	RS-232/422/485	✓	✓	-
	Serial connector type	DB9 Male	DB9 Male	-
Operating Mode	Mobility/Roaming	✓	✓	-
	Multi-Hopping	-	-	-
	AP/CPE	-	-	✓
Enclusure & Mount kit	Enclusure	IP30	IP30	IP30
	DIN-rail	✓	✓	✓
	Wall	✓	✓	✓
	VESA Mount	-	-	-
	Pole Mount	-	-	-
Power	Power Input (VDC)	12~48V	12~48V	12~48V
	Power input (PoE)	-	-	-
	Power connector	Terminal block	Terminal block	Terminal block
	Power Consumption (12/24/48VDC) Watts	8W (EKI-1361) 9W (EKI-1362)	8W (EKI-1361-MB) 9W (EKI-1362-MB)	8W
Environment	Operating Temp.	-40 ~ 75°C	-40 ~ 75°C	-40 ~ 75°C
	Operating Humidity	10 ~ 95%	10 ~ 95%	10 ~ 95%
	Input Reverse Protection	✓	✓	✓
Software	Netwrok Protocol	-	Modbus TCP, Modbus RTU/ASCII	-
	Firewall	-	-	-
	Router	-	-	-
	configuration option	Web-base, windows utility	Web-base, windows utility	Web-base
	Authentication	Username/Password	Username/Password	Username/Password
	Standard operation mode	VCOM, USDG mode (TCP/UDP server, TCP/UDP client), Pair connection/Access Point Mode	Pair connection/Access Point Mode/ Modbus RTU Master/Slave, Modbus ASCII Master/Slave	Access Point
WLAN	IEEE Standard	a/b/g/n	a/b/g/n	a/b/g/n/ac
	Radio Number	1	1	1
	Security	WEP, WPA/WPA2-Personal, WPA/ WPA2-Enterprise	WEP, WPA/WPA2-Personal, WPA/ WPA2-Enterprise	WEP, WAP/WAP2-Persona, WAP/WAP2-Enterprise
RF	MIMO	2T2R	2T2R	2T2R
	Maximum Transmit Output Power	19dBm (2.4G) 14dBm (5G)	19dBm (2.4G) 14dBm (5G)	19dBm (2.4G) 14dBm (5G)
	Rcecive Sensitivity	-85dBm @ 11b -75dBm @ 11a	-85dBm @ 11b -75dBm @ 11a	-85dBm @ 11b -75dBm @ 11a
	Antenna Connector	R-SMA	R-SMA	R-SMA
Cellular	Standard	-	-	-
	Five-band option in UMTS	-	-	-
	Quad-band optin in EDGE/GSM	-	-	-
	Certification (GCF, PTCRB)	-	-	-
Certification	UL60950-1	-	-	-
	EN60950-1	-	-	-
	CE (EN55022 class A, EN55024)	✓	✓	✓
	FCC (part 15 subpart B class A)	✓	✓	✓
	Hazardous Location (Class I, Division 2)	-	-	-
	Radio (EN 301 489-1/-4, EN 301 511)	-	-	-
	Radio (FCC part 22H, part 24E)	-	-	-
	EN 50155	-	-	-

Fieldbus Gateway




Model Name		EKI-1221IPNMB	EKI-1221IEIMB	EKI-1242ECMS/ECIMS EKI-1242EIMS/IEIMS EKI-1242PNMS/IPNMS	EKI-1242BNMS
Description		Modbus TCP to PROFINET Protocol Gateway	Modbus TCP to EtherNet/IP Protocol Gateway	Modbus RTU/TCP to EtherCAT, EtherNet/IP, PROFINET Fieldbus Gateway	ModbusRTU/TCP to BACnet Fieldbus gateway
Connectivity	10/100Base-TX, Fixed	2	2	4	4
	10/100/1000Based-T, Fixed	-	-	-	-
	RS-232 only	-	-	-	-
	RS-232/422/485	-	-	2	2
	Serial connector type	-	-	DB9 male	DB9 male
Operating Mode	Mobility/Roaming	-	-	---	---
	Multi-Hopping	-	-	---	---
	AP/CPE	-	-	---	---
Enclusure & Mount kit	Enclusure	IP30	IP30	IP30	IP30
	DIN-rail	✓	✓	✓	✓
	Wall	✓	✓	✓	✓
	VESA Mount	-	-	-	-
	Pole Mount	-	-	-	-
Power	Power Input (VDC)	(12~48V)	(12~48V)	(12~48V)	(12~48V)
	Power input (PoE)	-	-	---	---
	Power connector	Terminal block	Terminal block	Termincal block	Termincal block
	Power Consumption (12/24/48VDC) Watts	5.2W	5.2W	5.2W	5.2W
Environment	Operating Temp.	-40~70°C	-40~70°C	-10~60°C "I"model: -40~75°C	-10~60°C
	Operating Humidity	10~95%	10~95%	10~95%	10~95%
	Input Reverse Protection	✓	✓	✓	✓
Software	Netwrok Protocol	Modbus TCP PROFINET	Modbus TCP EtherNet/IP	Modbus RTU/TCP EtherNet/IP	Modbus RTU/TCP BACnet
	Firewall	-	-	-	-
	Router	-	-	-	-
	configuration option	Web-base	Web-base	Web-base	Web-base
	Authentication	Username/Password	Username/Password	Username/Password	Username/Password
	Standard operation mode	Modbus/TCP Master PROFINET Slave	Modbus/TCP Master PROFINET Adaptor	EtherNet/IP adapter EtherCAT slave PROFINET slave	
WLAN	IEEE Standard	-	-	-	-
	Radio Number	-	-	-	-
	Security	-	-	-	-
RF	MIMO	-	-	-	-
	Maximum Transmit Output Power	-	-	-	-
	Rcecive Sensitivity	-	-	-	-
	Antenna Connector	-	-	-	-
Cellular	Standard	-	-	-	-
	Five-band option in UMTS	-	-	-	-
	Quad-band optin in EDGE/GSM	-	-	-	-
	Certification (GCF, PTCRB)	-	-	-	-
Certification	UL60950-1	✓	✓	✓	✓
	EN60950-1	-	-	-	-
	CE (EN55022 class A, EN55024)	✓	✓	✓	✓
	FCC (part 15 subpart B class A)	✓	✓	✓	✓
	Hazardous Location (Class I, Division 2)	-	-	-	-
	Radio (EN 301 489-1/-4, EN 301 511)	-	-	-	-
	Radio (FCC part 22H, part 24E)	-	-	-	-
	EN 50155	-	-	-	-

Modbus Gateway
Modbus Router

Model Name		EKI-1221/CI/I EKI-1222/CI/I EKI-1224/CI/I EKI-1228/CI/I-DR
Description		1/2/4/8-Port Modbus Gateway
Connectivity	10/100Base-TX, Fixed	2
	10/100/1000Based-T, Fixed	-
	RS-232 only	-
	RS-232/422/485	1/2/4 (CI version: RS-422/485)
	Serial connector type	DB9 Male
Operating Mode	Mobility/Roaming	-
	Multi-Hopping	-
	AP/CPE	-
Enclosure & Mount kit	Enclusure	IP30
	DIN-rail	✓
	Wall	✓
	VESA Mount	-
	Pole Mount	-
Power	Power Input (VDC)	2* (12~48V)
	Power input (PoE)	-
	Power connector	Terminal block
	Power Consumption (12/24/48V DC) Watts	5.2W (EKI-1221/1222/1228) 6.3W (EKI-1224)
Environment	Operating Temp.	EKI-1221/EKI-1222/ EKI-1224: -10 ~ 60°C 'CI & I' models: -40 ~ 70°C
	Operating Humidity	5 ~ 95%
	Input Reverse Protection	-
Software	Netwrok Protocol	Modbus RTU, Modbus TCP, Modbus ASCII
	Firewall	-
	Router	
	configuration option	Windows Utility, Web Browser
	Authentication	-
	Standard operation mode	Modbus RTU Master/Slave mode Modbus ASCII Master/Slave mode
WLAN	IEEE Standard	-
	Radio Number	-
	Security	-
RF	MIMO	-
	Maximum Transmit Output Power	-
	Rcecive Sensitivity	-
	Antenna Connector	-
Cellular	Standard	-
	Five-band option in UMTS	-
	Quad-band optin in EDGE/GSM	-
	Certification (GCF, PTCRB)	-
Certification	UL60950-1	✓
	EN60950-1	-
	CE (EN55022 class A, EN55024)	✓
	FCC (part 15 subpart B class A)	✓
	Hazardous Location (Class I, Division 2)	✓
	Radio (EN 301 489-1/-4, EN 301 511)	-
	Radio (FCC part 22H, part 24E)	-
	EN 55155	-

Serial Device Servers

Model Name		EKI-1521/CI/I EKI-1522/CI/I EKI-1524/CI/I	EKI-1528I-DR EKI-1528CI-DR	EKI-1528/I/T/I EKI-1526/I/T/I	ADAM-4571/L ADAM-4570/L
Description		1/2/4-port RS-232/422/485 Serial Device Server	8-port RS-232/422/485 Device Server 8-port RS-422/485 Device Server	8/16-port RS-232/422/485 Serial Device Server	1/2-port RS-232/422/485 Serial Device Server
Connectivity	10/100Base-TX, Fixed	2	2	-	1
	10/100/1000Based-T,Fixed	-	-	2	-
	RS-232 only	-	-	-	ADAM-4571L/4570L: 1/2
	RS-232/422/485	1/2/4 (CI version: RS-422/485)	8	8/16	ADAM-4571/4570: 1/2
	Serial connector type	DB9 Male	DB9 Male	DB9 male "N: model: RJ45	ADAM-4571/L: DB9 Male ADAM-4570/L: 10-pin RJ48
Enclosure & Mount kit	Enclusure	IP30	IP30	SECC chassis	ABS+PC with solid mounting hardware
	DIN-rail	✓	✓	Rackmount	✓
	Wall	✓	✓	-	✓
	VESA Mount	-	-	-	-
	Pole Mount	-	-	-	-
Power	Power Input (VDC)	2* (12~48V)	2* (12~48V)	EKI-1528(I)/EKI-1526(I): 100 ~ 240 VAC , 50 ~ 60 Hz EKI-1528T(I)/EKI-1526T(I): 12 ~ 48 VDC, Terminal Block	(10~30V)
	Power input (PoE)	-	-	-	-
	Power connector	Terminal block	Terminal block	6-pin removable screw terminal	Terminal block
	Power Consumption (12/24/48VDC) Watts	5.2 W (EKI-1521/EKI-1522) 6.3 W (EKI-1524)	5 W (EKI-1528I) 6 W (EKI-1528CI)	5.6 W	2.5 W
Environment	Operating Temp.	EKI-1521/EKI-1522/EKI-1524: -10 ~ 60°C 'CI & I' models: -40 ~ 70°C	-40 ~ 70°C	-10 ~ 60°C (14 ~ 140°F) "I" Model: -40 ~ 75°C (-40 ~ 167°F)	-10 ~ 60°C
	Operating Humidity	5 ~ 95%	10 ~ 95%	10 ~ 95%	5 ~ 95%
	Input Reverse Protection	-	-	-	-
Software	Netwrok Protocol	ARP, ICMP, IPv4, TCP, UDP, BOOTP, DHCP Client, Auto IP, Telnet, SNMP, HTTP, DNS, SMTP, NTP	ARP, ICMP, IPv4, TCP, UDP, BOOTP, DHCP Client, Auto IP, Telnet, SNMP, HTTP, DNS, SMTP, NTP	ARP, ICMP, IPv4, TCP, UDP, BOOTP, DHCP Client, Auto IP, Telnet, SNMP, HTTP, DNS, SMTP, NTP	ARP, ICMP, IPv4, TCP, UDP, BOOTP, DHCP Client, Auto IP, Telnet, SNMP, HTTP, DNS, SMTP
	Firewall	-	-	-	-
	Router	-	-	-	-
	configuration option	Windows utility, Telnet console, Web Browser	Windows utility, Telnet console, Web Browser	Windows utility, Telnet console, Web Browser, serial console	Windows utility, Telnet console, Web Browser
	Authentication	-	-	-	-
	Standard operation mode	COM Port redirection (Virtual COM) TCP/UDP Server (Polling) Mode TCP/UDP Client (event handling) Mode Pair Connection (P2P) Mode RFC-2217 Mode	COM Port redirection (Virtual COM) TCP/UDP Server (Polling) Mode TCP/UDP Client (event handling) Mode Pair Connection (P2P) Mode RFC-2217 Mode	COM Port redirection (Virtual COM) TCP/UDP Server (Polling) Mode TCP/UDP Client (event handling) Mode Pair Connection (P2P) Mode RFC-2217 Mode	COM Port redirection (Virtual COM) TCP/UDP Server (Polling) Mode TCP/UDP Client (event handling) Mode Pair Connection (P2P) Mode
Certification	UL60950-1	✓	✓	-	-
	EN60950-1	-	-	-	-
	CE(EN55022 class A, EN55024)	✓	✓	✓	✓
	FCC (part 15 subpart B class A)	✓	✓	✓	✓
	Hazardous Location (Class I, Division 2)	✓	-	-	-
	Radio (EN 301 489-1/-4, EN 301 511)	-	-	-	-
	Radio (FCC part 22H, part 24E)	-	-	-	-
	EN 50155	-	-	-	-

PoE, PoE+ Gigabit
Media Converters

Model Name		PoE Giga-MiniMc w/LFPT	PoE+ Giga-MiniMc w/LFPT	IE-MultiWay
Part Numbers		PoE:857-11811	857-11911, 857-11912	858-11121
Description		PoE capable Unmanaged 10/100/1000 Media Converters	PoE+ capable Unmanaged 10/100/1000 Media Converters	Four Port Managed 10/100/1000 switch, with SFP capability, compact form factor
Interface	Ports Number	3	3	4
	10/100Base-T (X)	-	-	-
	100BaseFX	✓	-	✓
	10/100/1000Base-T (X)	2	2	✓
	1000Base-SX/LX	1	1	✓
	PoE (10/100/1000 Mbps)	1	-	-
	PoE+ (10/100/1000 Mbps)	✓	2	-
	PoE Reset DSW	✓	✓	-
	SFP port model option	✓	✓	✓
	LFPT	✓	✓	✓
Network Management	Redundancy	-	-	✓
	Diagnostics	-	-	✓
	VLAN	-	-	✓
	Configuration	-	-	✓
	SNMP	-	-	✓
	Security	-	-	✓
	Jumbo Frames	10240	-	10240
Power	100-240VAC	✓	-	✓
	DC voltage	-	-	480 VDC
Hardware Mtg.	DIN-rail Mount	✓	-	✓
	Wall Mount	✓	-	✓
	Rack Mount	✓	-	✓
	IP Level	-	-	-
Protection	ESD (Ethernet)	-	-	
	Surge (EFT for power)	✓	✓	✓
	Reverse Polarity	✓	-	✓
Operating Temp	0 ~50°C	✓	-	-
	-25 ~ 85°C (-13 ~ +185°F)	-	-	-
	-40 ~ 85°C (-40 ~ 185°F)	-	-	✓
Certifications	CE	✓	-	✓
	FCC	✓	-	✓
	UL/cUL 60950-1	✓	-	✓
	Class 1, Division 2	-	-	-
	UL 508	-	-	-
	MSA compliant	-	-	-
	Class 1,Eye-safe Lasers	✓	-	✓