

Industrial Ethernet for Control and Automation

Over
450
products
For your Application

IPv6 Integration Fulfills Ever Expanding Application Needs



TN-5518
M12 Switch
▶ see page 9



EDS-608
Compact Modular Switch
▶ see page 1



VPort 354
4-channel Video Encoder
▶ see page 15



ioLogik W5340
Active GPRS I/O
▶ see page 17



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Compact Modular Managed Switches

Modular Flexibility in a Compact Design

- Flexible, modular expansion
- High density fiber connections
- -40 to 75°C operating temperature



Facilitates High Density Copper and Fiber Connections

Because a superior network is based on what it's comprised of, Moxa's compact modular switches provide unmatched expansion capabilities and multiple fiber connectivity to better your network. The award-winning EDS-600 series allows users to specify the port density and type (10/100/1000 copper and/or 100/1000 fiber ports), giving great configuration flexibility.

Rugged and Sturdy Design

With its rugged industrial design, this new family of switches has become the solution of choice whenever long-lasting reliability, a wide operating temperature range, and long haul fiber connections are called for to withstand harsh environmental conditions. In particular, the switches' unique compact size lets you conserve space, making them ideal for applications with critical dimensions.



EDS-608
8 FE ports



EDS-611
3G+8 ports



EDS-616
16 FE ports



EDS-619
3G+16 ports

Ready to ship in Q3

EDS-608/611/616/619

8, 3G+8, 16, 3G+16-port compact modular managed switches

- Compact and space-efficient design
- High density multi-fiber connectivity (multi-mode/single-mode with SC/ST connectors)
- Modular flexibility offers 10/100/1000-TX or 100/1000-FX ports
- -40 to 75°C operating temperature
- Fully managed: redundant Turbo Ring, QoS, IGMP snooping, VLAN, port trunking and more
- Security: IEEE 802.1X, HTTPS, SSH, SNMPv3 and port security
- Integrates IPv6 into current IPv4 infrastructure



IPv6: The Next Generation Internet

As of September 2007, nearly 80% of the world's IPv4 address capacity had been exhausted, leaving only 20% for future users. As a result, a new version of internet protocol, IPv6 with 128-bit address space, was created and adopted in response to the worldwide exhaustion of IP addresses. The main benefits of using IPv6 include extended IP address capability, IPsec security authentication, mobile IP, address auto-configuration, and multicast and inbuilt Quality of Service (QoS) for the prioritization of time sensitive streams and efficient packet handling.

Moxa's EDS-510A is the first industrial switch on the market to bear the IPv6 Ready logo, which ensures full compatibility with other IPv6 equipment. Moxa has implemented IPv6 into all of their managed switches to future-proof your network.



High Density Modular Switches

Using Layer 3 Switching Optimizes Network Efficiency

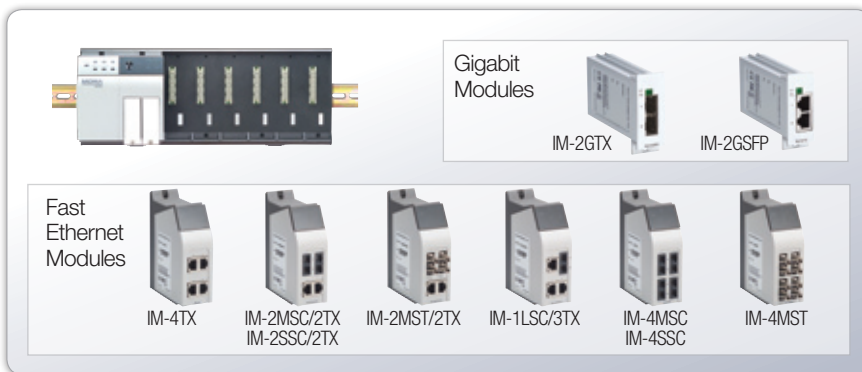
- Up to 4 Gigabit ports
- Full-wire speed routing
- Flexible media connections



Designed for Flexible and Cost-effective Upgrading

The EDS-828's modular structure increases expansion flexibility by offering a wide range of media modules with various media interfaces, including copper, fiber and SFP ports. Up to 28 fiber ports in multi-mode/single-mode with SC or ST connectors are available for long haul applications such as fiber optic railway networks and pipeline networks. Full-wire speed IP routing combined with full Layer 2 managed features, such as QoS, ensures that network traffic is classified, prioritized, and congestion is avoided. With this unique mixture of Layer 3 switching and a modular platform with multi-gigabit speeds, your investments are protected.

Modular Platform



EDS-728/828 L2/L3 4G+24-port modular managed switches

- Full-wire speed IP routing (EDS-828)
- Expansion flexibility is enabled via modular structure
- Various media modules: copper, fiber, and SFP ports
- Up to 4 Gigabit ports for Gigabit backbone and uplinks
- Fully managed and with security features



reddot design award
honourable mention 2008



product design award
2006



Dynamic IP Routing Architecture from Moxa

Compared to software-logic routers, Layer 3 switches feature full-wire speed routing that offers a fast and less expensive way to segment large LANs to improve traffic flow and network efficiency.

Moxa's dynamic IP routing architecture provides greater network throughput and less administration work by incorporating RIP v1/v2 and OSPF protocol for IP unicast routing, DVMRP and PIM-DM for intensive multicast LAN applications, and VRRP for routing redundancy. The dynamic routing protocols allow for increased scalability, stability, and performance, which are all necessary for evolving networks.

RIP v1/v2 Routing Information Protocol

OSPF Open Shortest Path First

DVMRP Distance Vector Multicast Routing Protocol

PIM-DM Protocol Independent Multicast Dense Mode

VRRP Virtual Router Redundancy Protocol

Full Gigabit Switches


Scale up Your Network to Full Gigabit Speeds

- Flexible combo Gigabit RJ45/SFP ports
- Compatible with today's networks
- Rugged industrial features
- Gigabit redundant ring connections



Allows for the Highest Levels of Data Transmission


Moxa's full-Gigabit switches feature Gigabit speeds on every connector and are industrial grade durable, making them very suitable for upgrading an existing network or connecting multiple Gigabit-enabled devices in industrial environments. The combo Gigabit RJ45/SFP fiber ports allow the mixing and matching of various media options, such as copper, single-mode fiber, and multi-mode fiber to offer greater flexibility and scalability. In addition, the managed EDS-G509 combines four fixed Gigabit copper and five combo Gigabit SFP/TX ports, making it the best solution for interconnecting multiple redundant Gigabit rings to an entire network.



Full Gigabit


- 4 Fixed RJ45 Ports
- 5 Combo RJ45/SFP Fiber Ports

Managed
EDS-G509



8G Ports

Unmanaged
EDS-G308



5G Ports

Unmanaged
EDS-G205

Full-Gigabit Ethernet Switches

- Gigabit speeds on every connector
- Configurable 10/100/1000-TX and/or 100/1000-FX
- Maximum flexibility and cost-effectiveness
- -40 to 75°C operating temperature
- Gigabit Turbo Ring and RSTP/STP for redundancy (managed models)



Total Gigabit Flexibility

The need for full Gigabit connections is not only driven by the increasing demand for video networking devices and many Ethernet-enabled devices for industrial environments, but for upgrading as well. Moxa's industrial full-Gigabit switches are designed with Gigabit uplinks and total Gigabit capability to ensure years of reliable operation and to handle increased network loading in the future.

Overview of Full Gigabit Switches

Model		Port Number			Features									
		No. of Ports	Gigabit Ethernet (10/100/1000 Mbps)	Fast Ethernet (10/100 Mbps)	Turbo Ring	RSTP/STP	IGMP Snooping	QoS	VLAN	SNMPv1/v2c/v3	Port Security	IEEE 802.1X	HTTPS/SSH	IPv6
Managed	EDS-G509	9	9	-	v	v	v	v	v	v	v	v	v	v
Unmanaged	EDS-G308	8	8	-	-	-	-	-	-	-	-	-	-	-
	EDS-G205	5	5	-	-	-	-	-	-	-	-	-	-	-

GE and FE Managed Switches

Build Redundant Gigabit Backbone and Uplink

- Form a Gigabit ring and uplink
- Fully managed features
- -40 to 75°C operating temperature



EDS-510A

Flexible and Reliable Network Construction

To meet the demand for bandwidth-critical communications, Moxa offers a line of Gigabit Ethernet and fast Ethernet managed switches that support a wide range of media options, including copper and optical fiber. The switches can accommodate data transmission rates from 10 Mbps to 100 Mbps, and 1000 Mbps. The switches' various configuration options allow users to specify the media type, speed, and distance for flexible and cost-effective network connectivity.

Gigabit Fiber Ring and Uplink

The EDS-510A series comes with 3 Gigabit ports and 7 Fast Ethernet ports. Two Gigabit ports can be used to create a redundant Gigabit fiber/copper ring, and the remaining Gigabit port can be used as an uplink to connect to the control center or a Gigabit-enabled device.

EDS-510A 3G+7-port Gigabit managed switches



- 2 Gigabit ports for a redundant ring and 1 Gigabit port for uplink
- Redundancy with Turbo Ring and RSTP/STP
- Fully managed and with security features
- -40 to 75°C operating temperature

EDS-P510 3G+7-port PoE managed switches



- 4 IEEE 802.3af PoE ports
- Up to 3 combo Gigabit RJ45/SFP ports
- Intelligent PoE power management

Building a Fiber or Copper Gigabit Backbone

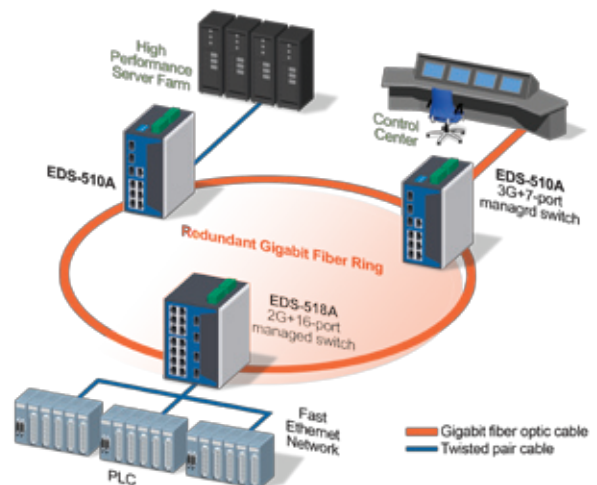
The EDS-518A is equipped with 2 combo Gigabit slots and 16 Fast Ethernet ports. The 2 combo Gigabit RJ45/SFP ports support either copper or fiber to give you greater flexibility when constructing your Gigabit backbone.



2 combo Gigabit RJ45/SFP ports

EDS-518A 2G+16-port managed switches

- 2 combo Gigabit RJ45/SFP ports
- Turbo Ring and RSTP/STP for Ethernet redundancy
- Supports QoS, IGMP snooping, and VLAN
- Security: IEEE 802.1X, port security, HTTPS, SSH, and SNMPv3
- -40 to 75°C operating temperature



Fast Ethernet Managed Switches

Best Price to Performance Ratio

- 10/100M copper or 100M fiber
- Redundant network structure
- -40 to 75°C operating temperature
- From advanced to entry level solutions

Top Performance
 Optimal Price



Cost-effective Fast Ethernet Connections

Moxa offers a wide selection of Fast Ethernet managed switches, from the entry-level EDS-400A series to the advanced EDS-500A series. These switches offer 5, 8, or 16 ports with 10/100M copper and 100M fiber options for diverse Fast Ethernet network connectivity. The core-management functions include redundant Turbo Ring, 802.1Q VLAN for easy network planning, QoS to increase determinism, and IGMP snooping/GMRP for filtering multicast traffic. With IEEE 802.1X, HTTPS/SSH, and SNMPv3, your network security can be ensured. These compact DIN-Rail switches feature extended temperature, dual redundant power, and long-haul transmission up to 80 km to allow industrial users to build highly rugged networks. Moxa's Fast Ethernet managed switches are packed with features yet are extremely cost-effective.



EDS-505A/508A/516A Series

5, 8, and 16-port fast Ethernet managed switches

- Plug-n-play Turbo Ring and RSTP/STP for Ethernet redundancy
- QoS, IGMP snooping/GMRP, VLAN, LACP, SNMPv1/v2c and RMON
- Security: IEEE 802.1X, HTTPS, SSH, SNMPv3 and port security
- Web-based configuration and management
- -40 to 75°C operating temperature (T models)
- Long haul transmission of up to 80 km supported

EDS-405A/408A Series

5 and 8-port entry-level fast Ethernet managed switches

- Plug-n-play Turbo Ring (recovery < 20 ms) and RSTP/STP Ethernet redundancy
- QoS, port-based VLAN, SNMPv1/v2c/v3, and RMON
- Automatic warning by exception through e-mail, relay output
- -40 to 75°C operating temperature (T models)
- **Up to 3 fiber ports for wind power (EDS-408A)**

Overview of Fast Ethernet Switches

Model	Port Interface Fast Ethernet (10/100 Mbps)	Features										
		Turbo Ring	RSTP/STP	IGMP/GMRP	Port Trunking	IEEE 802.1X/HTTPS/SSH	SNMP v1/v2c/v3	SNMP/RMON	802.1Q VLAN	Port-based VLAN	QoS	IPv6
EDS-516A	16	v	v	v	v	v	v	v	v	v	v	v
EDS-508A	8	v	v	v	v	v	v	v	v	v	v	v
EDS-505A	5	v	v	v	v	v	v	v	v	v	v	v
EDS-408A	8	v	v	-	-	-	v	v	-	v	v	v
EDS-405A	5	v	v	-	-	-	v	v	-	v	v	v

Unmanaged Ethernet Switches



Low Cost and Utmost Reliability for Demanding Industrial Applications

Moxa is proud to release the world's most rugged unmanaged switches, the EDS-200A series, which are housed in a slim DIN-Rail metal case. With multiple copper RJ45 ports and configurable 100M multi-mode/single-mode fiber ports, these space-saving switches are perfectly suited for control cabinets that are linked by a long fiber run. The EDS-200A series is specially designed for harsh environments, with all models subjected to a 100% burn-in test and required to meet a variety of strict industry standards, such as Class 1 Div 2/ATEX Zone 2 rating for hazardous locations and DNV/GL for marine use. Other rugged features include a -40 to 75°C operating temperature and dual redundant power.

Robust Unmanaged Network Connections

Moxa provides a diverse collection of industrial unmanaged switches that range from basic switches featuring cost-effective scalability to robust switches designed for harsh industrial environments. If you are looking for a rugged yet economical switch, Moxa has what you need.



EDS-305/308/309/316 series Advanced 5, 8, 9, and 16-port unmanaged switches

- -40 to 75°C operating temperature
- Redundant dual 24 VDC power inputs
- Relay output for port break, power failure
- Up to 3 fiber connections for wind power (EDS-309)
- C1D2/ATEX Zone 2 and DNV/GL ratings



EDS-205A/G205/208A Rugged 5, 5G and 8-port unmanaged switches

- Configurable 10/100-TX and 100-FX
- -40 to 75°C operating temperature
- Dual redundant 12/24/48 VDC inputs
- C1D2/ATEX Zone 2 and DNV/GL ratings
- Slim IP30 aluminum housing



EDS-205/208 series Entry-level 5 and 8-port unmanaged Ethernet switches

- 10/100-TX and multi-mode 100-FX
- Broadcast storm protection
- -10 to 60°C operating temperature
- IP30 DIN-Rail mounting
- Space- and cost-efficiency

Model	No. of Ports	Port Interface			Features			Approvals	
		10/100-TX	100-FX	10/100/1000-TX	Alarm Contact	Power Redundancy	Temperature	DNV/GL	C1D2
EDS-316	16	16	2	-	v	v	-40 to 75°C	v	v
EDS-309	9	6	3	-	v	v	-40 to 75°C	v	v
EDS-308	8	8	2	-	v	v	-40 to 75°C	v	v
EDS-305	5	5	1	-	v	v	-40 to 75°C	v	v
EDS-208A	8	8	2	-	-	v	-40 to 75°C	v	v
EDS-G205	5	-	-	5	-	v	-40 to 75°C	v	v
EDS-205A	5	5	-	-	-	v	-40 to 75°C	v	v
EDS-208	8	8	1	-	-	-	-10 to 60°C	-	-
EDS-205	5	5	-	-	-	-	-10 to 60°C	-	-

Industrial Rack Mount Switches

Ruggedized Design for Hardened Industrial Applications

- Wide power input range
- -40 to 75°C operating temperature
- Choice of RJ45, fiber, SFP, and PoE ports
- Meets industrially recognized standards



Meets Strict Requirements for Critical Networks

When building a mission critical network, engineers look for highly reliable solutions at a reasonable price. Moxa's industrial-grade rackmount Ethernet switches fit the bill by merging long-term reliability, suitability, and flexibility at an affordable price.

Rock-solid Reliability and Uptime

Redundancy is a key factor in keeping industrial networks up and running. The managed IKS-6726 series switches can handle network redundancy with Moxa's own Turbo Ring technology (recovery < 20 ms) and isolated redundant power inputs. The powerful mixture of fanless operation over a wide temperature range of -40 to 75°C, rugged construction, and fiber optic support enhances the reliability of your critical networks.

Enhanced Network Configuration Flexibility

The IKS series features a wide input range of 24/48 VDC or 110/220 VDC/VAC, which reduces the total cabling cost and makes the switches suitable for various applications. Mixed media modules that are highly configurable with multiple RJ45, fiber, and SFP fiber ports allow you to set up virtually any network structure you can think of. Moxa has added PoE capability to its growing line of rackmount managed switches, which can be installed in areas where a power source is not readily available.

IKS-6726 Series 2G+24-port industrial rackmount modular managed switches

- Isolated redundant power inputs with universal 24/48 VDC or 110/220 VDC/VAC inputs
- Up to 18 fiber ports for superb EMI immunity
- Fanless design and -40 to 75°C operating temperature
- Various media modules: RJ45, fiber, and SFP ports
- Turbo Ring and RSTP/STP for Ethernet redundancy

Wide Power Input Range



IKS-6726-PoE Series 2G+24-port industrial rackmount modular managed PoE switches

- IEEE 802.3af compliant, up to 16 PoE ports with max. 15.4 watts at 48 VDC and 10/100M data transmission per PoE port
- Supports a total of 120 W for PoE power management for AC power input model
- -40 to 75°C operating temperature

Up to 16 PoE Ports



IKS-6324 Series 2G+22-port industrial rackmount unmanaged switches

- Universal 12/24/48 VDC or 110/220 VDC/VAC inputs
- Dual redundant 12/24/48 VDC inputs
- -40 to 75°C operating temperature range
- Rugged and economical Ethernet networks

Wide Power Input Range



Rigorous Tests Prove the IKS's Industrial Reliability and Suitability

All of IKS series switches have passed a series of strict design and manufacturing tests, including ESD tests, surge/EFT tests, wide temperature tests, shock and vibration tests, and many more. In particular, the 24-hour dynamic test is conducted to guarantee the ultimate in industrial-grade quality and operating reliability.

Design-phase Tests Maximize Operational Stability



ESD Test



Surge/EFT Test



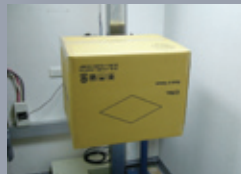
Wide Temperature Test



Vibration Test



Shock Test



Freefall Test

Production-phase Tests Optimize Hardened Quality



Board-level Test



Burn-in Test



System Level Test



Hipot Test

Certified for a Variety of Industrial Applications

Moxa's IKS series switches are designed in strict accordance with several industry standards. For example, EN50155 and EN50121-4 for rail traffic, NEMA TS2 for road traffic control systems, DNV/GL for marine and offshore use, and UL60950-1 for safety. These approvals guarantee high adaptability to extremely harsh environments.

DNV/GL for Maritime/
OffshoreEN50155 and EN50121-4
for Rail TrafficNEMA TS2
for Road TrafficUL60950-1
for Safety

Substation-specific Ethernet Switches

KEMA tests passed

based on IEC 61850-3 /
IEEE 1613 standards



The entire PowerTrans line has passed KEMA tests based on IEC 61850-3 and IEEE 1613 standards. The KEMA tests were designed to precisely simulate real substation conditions. All tests for the PT series were conducted in four phases:

- Functional tests for GOOSE messaging, VLAN handling, priority tagging, Rapid Spanning Tree, etc.
- EMC tests for high ESD protection, surge protection, and other electromagnetic interferences
- Extreme temperature tests ranging from -40 to 85°C
- Hardened mechanical tests for reliable operation under a high level of vibration and shock, such as an earthquake.

PowerTrans Series

IEC 61850-3 rackmount Ethernet switches

PT-7728/7828

Layer 2 / Layer 3 4G+24-port
substation managed switches



PT-7710

2G+8-port substation managed switches



PT-7324

2G+22-port substation smart switches



A Complete Set of Substation-specific Functionalities

- Passed KEMA tests based on IEC 61850-3 and IEEE 1613 standards
- High performance wire-speed Layer 3 switching (PT-7828)
- Various media modules: RJ45, fiber, SFP, M12, and PoE ports
- Isolated redundant power inputs with universal 24/48 VDC or 110/220 VDC/VAC inputs from different input voltages
- Fanless design with -40 to 85°C operating temperature

M12 Ethernet Switches

Built to Withstand Severe Vibrations

- Rugged M12 form factor
- Large power input choices
- -40 to 75°C temperature range
- Up to 2 Gigabit ports with relay bypass



**Vibration-proof
Connection**

Well Suited for Rail Traffic Applications

In industries such as rail vehicles, ships, buses, and other challenging industrial settings, uptime and reliability are critical. Such heavy duty applications commonly operate under tough conditions including vibrations, shock, and extreme temperature. Hence, a high degree of rugged mechanical stability is required to ensure network availability. Used at field level, ToughNet switches offer M12 and circular connectors to ensure robust connections and reliable operation in the presence of severe vibrations or shocks. PoE models are also available to simplify field wiring.

A Range of M12 Managed Switches

The managed TN-5500 series provide either 8/10/16/18 ports with standard 4-pin D-coded M12 form factor. In the case of system failure, The TN-5518/5510 switches feature two Gigabit copper ports with relay bypass on the bottom to ensure continuous network connection. Compact M12 switches are available in DIN-Rail or panel mounting that can be directly installed at the field level to reduce wiring costs and have the potential to replace traditional field buses in the future.

A Universal Input Voltage Range

To satisfy a broad range of power demands, the TN-5500 series provide isolated redundant power with universal 12/24/36/48 VDC, 72/96/110 VDC, or 110/220 VDC/VAC inputs, making the switches ideal for various industrial applications. Comes with wide operating temperature and has a fanless design, and because the enclosure is metal, mechanical stresses and EMI threats are minimized.

Managed M12 Switches

TN-5508/5510/5516/5518 Series

8, 2G+8, 16, 2G+16-port M12 managed switches

- Flexible choices of Gigabit/fast Ethernet copper/fiber ports
- 2G-port flexibility with relay bypass
- Isolated redundant power with universal 12/24/36/48 VDC, 72/96/110 VDC, or 110/220 VDC/VAC inputs
- Fanless design and -40 to 75°C operating temperature
- Turbo Ring and RSTP/STP for redundancy
- IGMP snooping, VLAN, QoS, LACP, HTTPS/SSH, IEEE802.1X, port security and SNMPv3
- EN50155/50121-3-2/50121-4, NEMA TS2, and e1 compliant



TN-5518
2G+16 ports



TN-5516
16 FE ports



TN-5510
2G+8 ports



TN-5508
8 FE ports

PoE models are available

Unmanaged M12 Switches

The unmanaged EDS-305-M12 has an IP67-rated housing for great protection against water, oil, and dust, making it well suited for hostile outdoor environments. Four IEEE 802.3af compliant PoE ports are added to the TN-5308 to simplify the installation of network devices by providing power over existing Ethernet cables.

Unmanaged M12 Switches

TN-5308 Series

8-port M12 unmanaged Ethernet switches

TN-5308-4PoE Series

8-port M12 IEEE 802.3af PoE unmanaged switches



- M12 connectors and IP40 metal housing
- Support 12/24/36/48 VDC input (LV model) or 72/96/110 VDC input (MV model)
- -40 to 75°C operating temperature
- 4 IEEE 802.3af compliant PoE 10/100M ports (TN-5308-4PoE)
- EN50155/50121-3-2/50121-4, NEMA TS2, and e1 compliant

EDS-305-M12

5-port M12 IP67 unmanaged switches

- 5 ports with robust M12 form factor
- Power input: 12 to 45 VDC, 18 to 30 VAC
- IP67 rated as waterproof and dust proof
- -40 to 75°C operating temperature



Certified to Meet Industry Standards

Rail vehicles require the highest standards of stability due to random vibrations that occur during normal operation. The ToughNet series is engineered to resist extreme vibrations and shocks based on the railway standards (EN50155/EN50121-3-2/50121-4). In addition, these tough switches meet NEMA TS2 standards for traffic control equipment and e1 approvals for onboard vehicle applications.



Rail Traffic

- EN50155 (Environmental)
- EN50121-3-2 (EMC)
- EN50121-4 (EMC)



Road Traffic

- NEMA TS2 (Environmental)

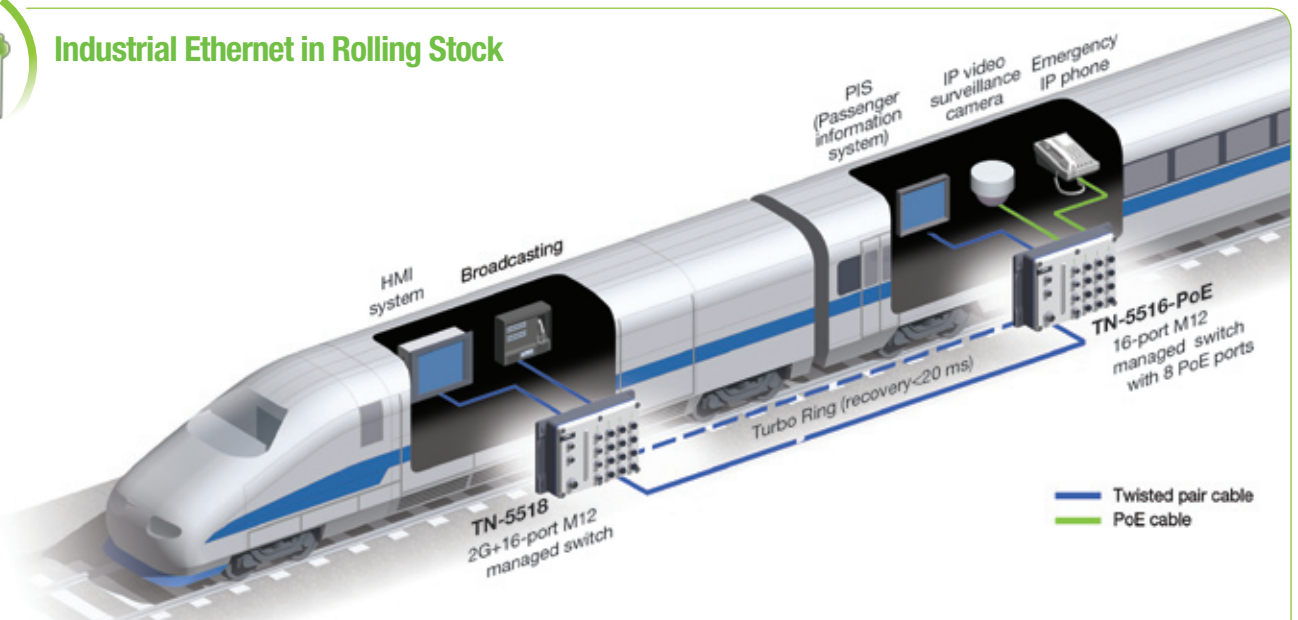


Onboard Vehicle Applications

- e1 (EMC)



Industrial Ethernet in Rolling Stock



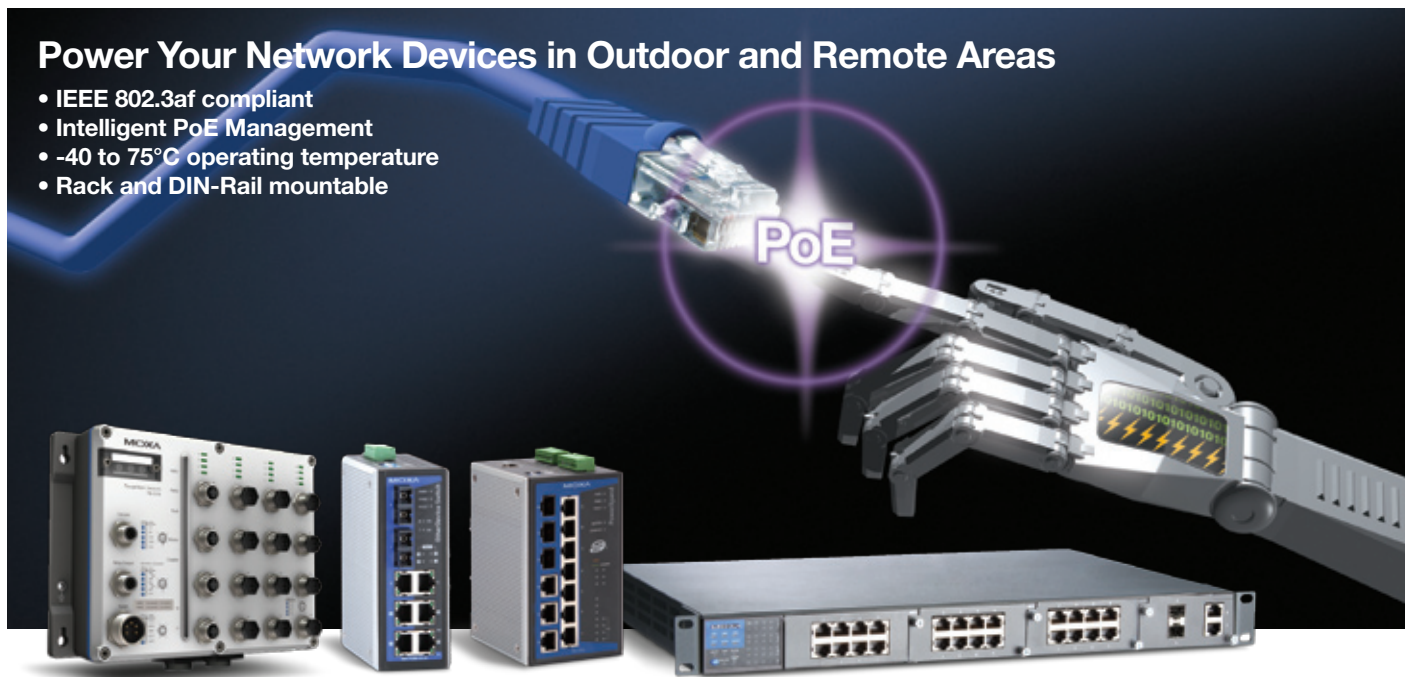
The conventional TCN (Train Communication Network) in rail vehicles is limited in its ability to support multiple services such as IP video surveillance or security intercom system. This is where IP-based Industrial Ethernet has the advantage over TCN. IP-based Industrial Ethernet is able to fulfill the demands of both train automation control and passenger comfort. The Ethernet network infrastructure makes it possible to integrate multiple systems and services into a single on-board TCMS (Train Control and Management System).

Model	Port Interface				Features										Approvals		
	Total No. of Ports	Gigabit Ethernet (10/100/1000 Mbps)	Fast Ethernet (10/100 Mbps)	PoE, (10/100 Mbps)	IP67	Isolated Redundant Power	Turbo Ring/RSTP/STP	IGMP Snooping/GMRP	VLAN	QoS	IEEE 1588 (PTP)	IEEE 802.1X/HTTPS/SSH	IPv6	SNMP/RMON	EN50155/EN50121-3-2/EN50121-4	NEMA TS2	e1
TN-5518	18	2	16	v	-	v	v	v	v	v	v	v	v	v	△	△	△
TN-5516	16	-	16	v	-	v	v	v	v	v	v	v	v	v	△	△	△
TN-5510	10	2	8	-	-	v	v	v	v	v	v	v	v	v	△	△	△
TN-5508	8	-	8	-	-	v	v	v	v	v	v	v	v	v	△	△	△
TN-5308	8	-	8	v	-	-	-	-	-	-	-	-	-	-	△	△	△
EDS-305-M12	5	-	5	-	v	-	-	-	-	-	-	-	-	v	△	△	

v: Available △: Pending

*All ToughNet series will be ready to ship in Q3 2009

Industrial PoE Switches



Power Your Network Devices in Outdoor and Remote Areas

- IEEE 802.3af compliant
- Intelligent PoE Management
- -40 to 75°C operating temperature
- Rack and DIN-Rail mountable

Increased Installation Flexibility and Efficiency

Moxa's Power-over-Ethernet (PoE) solutions are designed to meet IEEE 802.3af standards to provide 10/100 Mbps PoE ports with up to 15.4 watts at 48 VDC per port. This convenient solution provides a flexible way of supplying reliable DC power to network devices—IP surveillance cameras, wireless access points, IP phones and other PoE devices—over existing Ethernet cables in areas where a power source is not readily available. With PoE, network installation can be accomplished easier, faster, and at a lower cost.

Intelligent Power Management

Designed with efficiency in mind, Moxa's PoE switches support automatic detection and protection when 802.3af-compliant devices are not attached, fast fault recovery for powered devices, and a power limit control mechanism to reduce unnecessary power consumption. Furthermore, an hourly/weekly scheduling mechanism makes power consumption more economical and fulfills application-specific needs. This combination of intelligent power management functions makes your systems safer and more reliable.

Ideal for Hard-to-reach Outdoor and Harsh Environments

The reliability of PoE devices is a major concern since the devices are often installed in outdoor or harsh industrial environments that are subject to dramatic temperature changes and other threats. Examples include surveillance systems in tunnels, on ships and trains, in mines, and on factory floors. With their wide operating temperature, sturdy structure, high MTBF, and dual redundant VDC inputs, PoE switches offer reliable power for any tough application.

Benefits and Features

- Supports 10/100 Mbps and up to 15.4 watts at 48 VDC per PoE port
- Available from 4 to 16 PoE ports
- Rack, DIN-Rail, and panel mountable
- Input voltage: 12/24/36/48 VDC, 72/96/110 VDC, or 110/220 VDC/VAC
- Intelligent power consumption detection, classification, and scheduling
- Optional -40 to 75°C operating temperature



Moxa IEEE 802.3af PoE Product Portfolio

PoE technology is available on three product families in the extensive Moxa product portfolio, from rail mounted to rack mounted switches.

- DIN-Rail Ethernet switches
- Rackmount Ethernet switches
- ToughNet M12 Ethernet switches

DIN-Rail Ethernet Switches

EDS-P510 3G+7-port PoE managed switches

- 4 10/100 Mbps PoE ports
- Up to 3 combo Gigabit RJ45/SFP ports
- Fully managed and with security features
- -40 to 75°C operating temperature



4 PoE ports



EDS-P308 8-port unmanaged PoE switches

- 4 IEEE 802.3af compliant PoE ports
- Intelligent power consumption detection and classification
- -40 to 75°C operating temperature range
- 100-FX (multi/single-mode) fiber ports

Rackmount Ethernet Switches

IKS-6726-PoE 2G+24-port industrial rackmount managed PoE switches

Up to 16 PoE ports



- Modular design offers up to 16 PoE ports
- Media support: copper, fiber, and PoE
- Connector: TP: RJ45, M12
FO: SC, ST, GE SFP, FE SFP
- Isolated redundant power with universal 24/48 VDC or 110/220 VDC/VAC inputs

ToughNet M12 Ethernet Switches

TN-5516/5518-8PoE 2G+16 and 16-port M12 managed PoE switches

TN-5308-4PoE 8-port M12 unmanaged PoE switches

- DIN-Rail and panel mounting options
- Media support: copper, fiber, and PoE
- Connector: M12, circular RJ45, and circular LC connectors
- Isolated redundant power with universal 12/24/36/48 VDC, 72/96/110 VDC, or 110/220 VDC/VAC inputs (managed models)
- Approvals: EN 50155/50121-3-2/50121-4, NEMA TS2, and e1 compliant



TN-5518-8PoE
TN-5516-8PoE

8 PoE ports

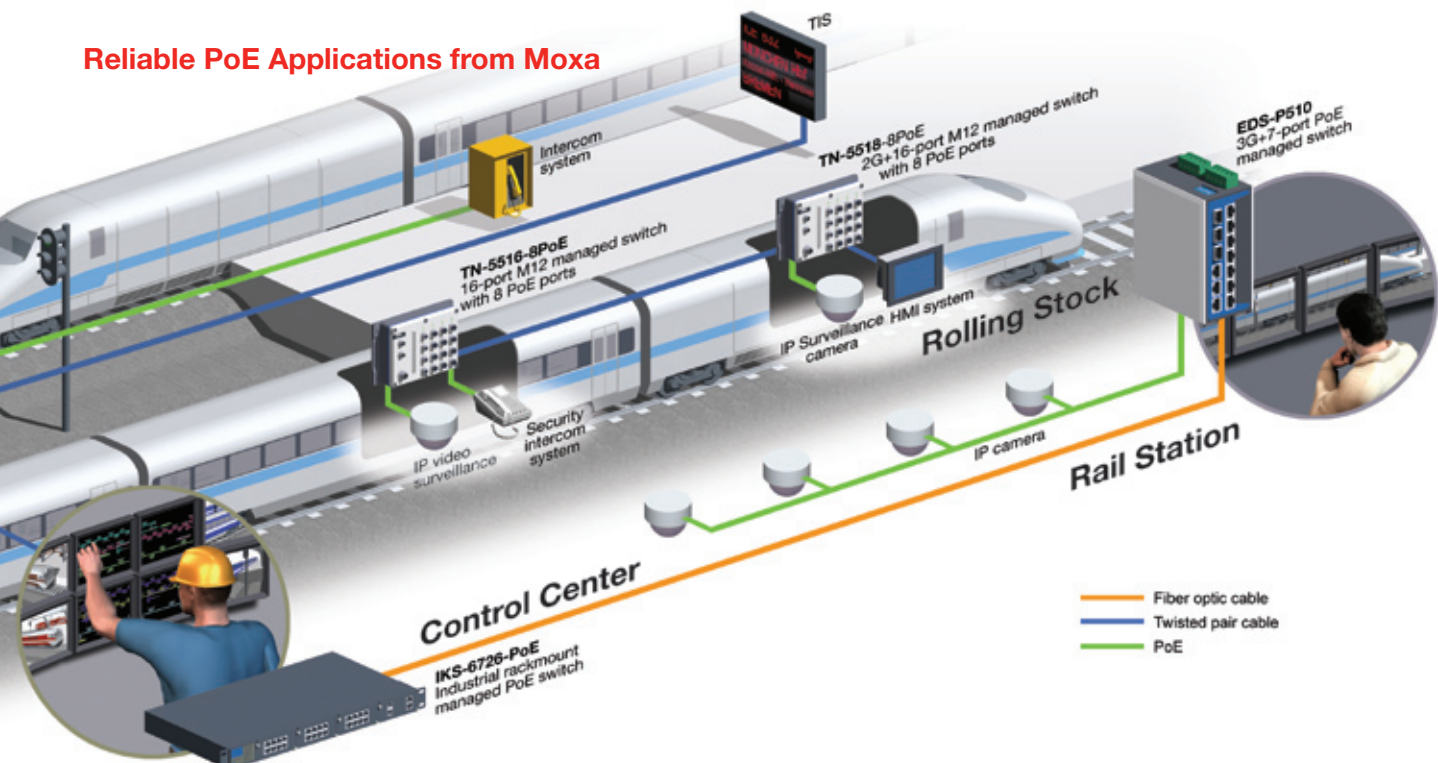


TN-5308-4PoE

4 PoE ports

Available
Q3 2009

Reliable PoE Applications from Moxa



Wireless AP/Bridge/Client

Build Robust and Secure Wireless Networks

- IEEE 802.11a/b/g compliant
- Fast roaming for seamless connectivity
- -40 to 75°C operating temperature
- Enterprise grade security



Reliable and Flexible Wireless Communications

WLAN has been widely adopted due to low installation costs, wide coverage, mobility, and flexibility. Moxa offers a wide range of IEEE 802.11a/b/g compliant industrial wireless products for industrial and outdoor sites. The AWK-3121 and AWK-4121 support several operation modes to increase application flexibility; as an access point, they connect wireless devices to an Ethernet wired network. In Client or Bridge mode, they connect one or more wired devices to a wireless network. With our detachable antenna design, you can extend signal coverage by using an antenna of your choice.

Robust Wireless Security

With WPA/WPA2 data encryption, user authentication and authorization through 802.1X/RADIUS, and IP packet filters, Moxa's AWK series gives you "peace of mind."

Proven Reliability under Severe Conditions

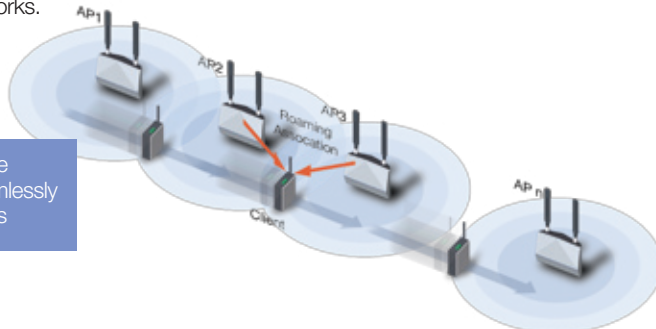
The AWK series is loaded with industrial features, including extended temperature ratings, redundant power inputs, and support for DIN-Rail or wall mounting. PoE is added to reduce wiring effort. The network uses RSTP/STP to assign redundant paths to prevent network looping and increase system uptime. These rugged units are compliant with C1D2/ATEX Zone 2 for hazardous locations, E/e mark for motor vehicles, and EN50155, EN50121-3-2, and EN50121-4 for rail traffic applications.

AWK-4121's Exceptional Ruggedness

The AWK-4121 is IP67 rated and housed in a dust-tight and waterproof enclosure for protection against the harmful effects of water, oil, and dust. Even when subjected to severe vibrations and shocks, the M12 connectors ensure the AWK-4121's stability, all of which make the AWK-4121 a natural fit for applications in harsh environments and the outdoors.

WLAN Turbo Roaming for Seamless Connectivity

When roaming between different networks and hotspots, Moxa's WLAN Turbo Roaming™ feature enables fast Basic Service Set (BSS) transitions between access points, resulting in fast seamless roaming on wireless networks.



With Turbo Roaming, the client can still roam seamlessly across the access points

AWK-4121 Industrial IEEE 802.11a/b/g wireless AP/Bridge/Client for outdoors

- IP67-rated as waterproof and dustproof
- M12 connectors withstand severe vibrations
- -40 to 75°C operating temperature
- Redundant power inputs and PoE
- Enhanced security with WPA/WPA2/802.11X, and powerful filters
- Turbo Roaming™ for seamless wireless connectivity
- Supports long-distance data transfer up to 10 km



AWK-3121 Series Industrial IEEE 802.11a/b/g Wireless AP/Bridge/Client

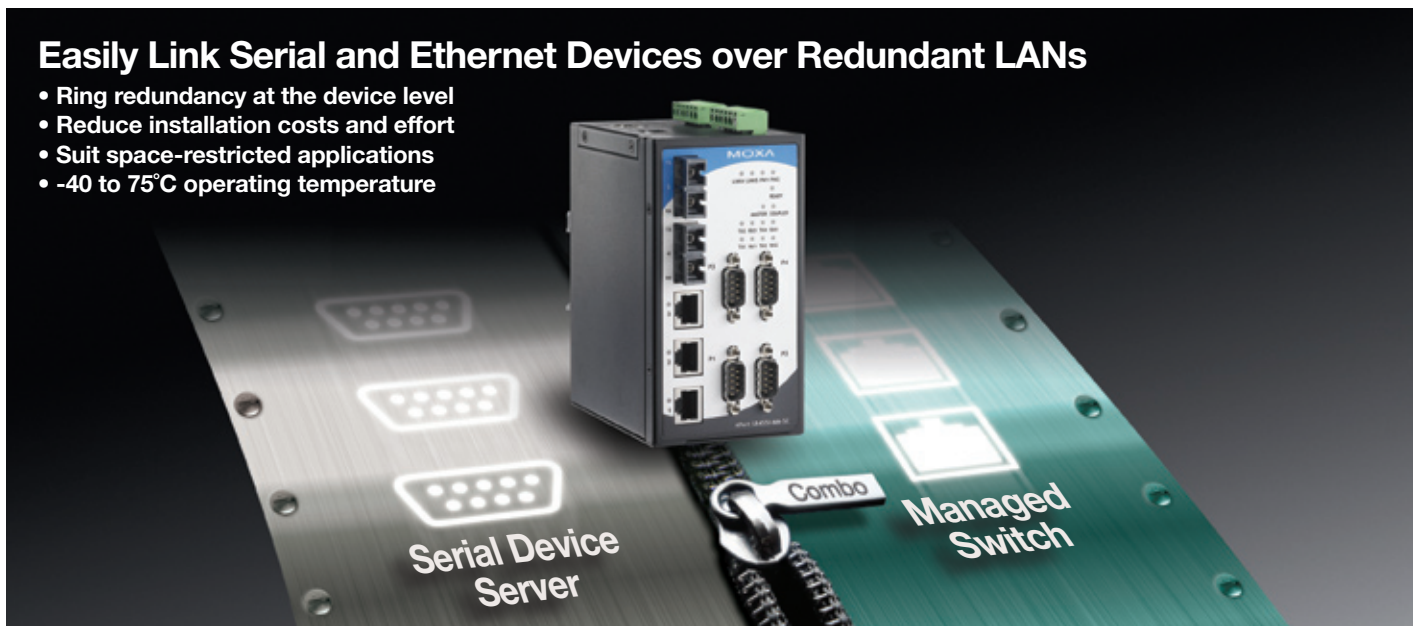
- Redundant power inputs or PoE
- Enhanced security with WPA/WPA2/802.11X and powerful filters
- Turbo Roaming™ for seamless wireless connectivity
- Long-distance data transfer up to 10 km supported
- Supports RSTP/STP for redundant paths
- -40 to 75°C operating temperature



Serial Device Servers

Easily Link Serial and Ethernet Devices over Redundant LANs

- Ring redundancy at the device level
- Reduce installation costs and effort
- Suit space-restricted applications
- -40 to 75°C operating temperature

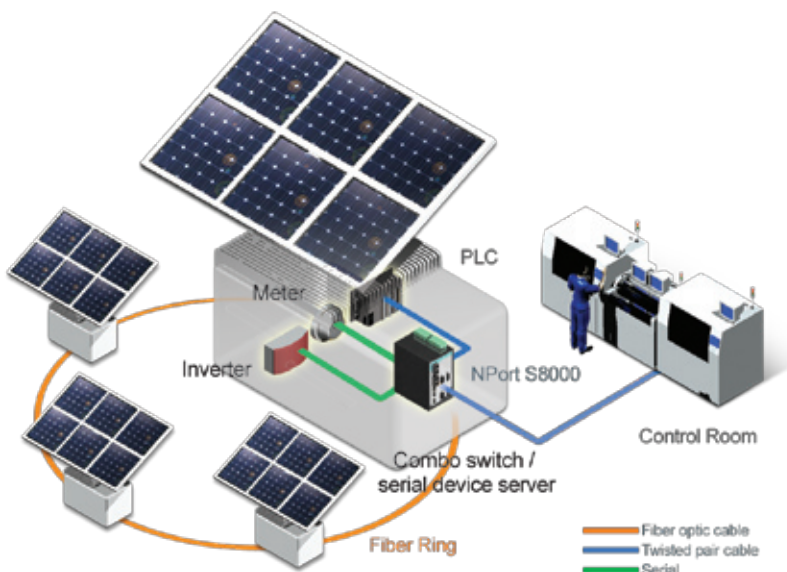


Compact All-in-one Switch/Device-server Design

The NPort S8000 combines an Ethernet switch and serial device server in a single solution with 2 fiber ports, 3 Ethernet ports, and 4 RS-232/422/485 serial ports. The compact all-in-one switch / device server design saves valuable cabinet space and lowers overall power consumption and costs, and is best suited for traffic monitoring and control applications. Renewable energy, such as solar power plants and wind farms, also benefit from the increased reliability and availability offered by the NPort S8455I's fiber redundant ring topology support.

NPort S8000 Combo switch / serial device server

- 4-port RS-232/422/485 serial device server
 - ▶ Serial QoS for serial data traffic prioritization
 - ▶ 2 KV (DC) isolation protection for each serial port
- 5-port managed Ethernet switch built in
 - ▶ 2 fiber ports and 3 RJ45 ports
 - ▶ Supports Turbo Ring, QoS, IGMP-snooping, VLAN, SNMPv1/v2c/v3, and IEEE 802.1X
 - ▶ Surge protection for serial, power, and Ethernet
 - ▶ -40 to 75°C operating temperature (T models)



Reliable Serial to Ethernet Connectivity

NPort® IA5000 Series

1 and 2-port serial device servers for industrial automation

- Industrial-grade certifications: UL/cUL Class 1 Division 2 and ATEX Class 1 Zone 2
- Cascading Ethernet ports for easy wiring (RJ45 ports only)
- Redundant DC power inputs
- 10/100-TX or 100-FX (single-mode/multi-mode)
- -40 to 75°C operating temperature



Industrial Video Surveillance Solutions



Create IP Video Surveillance Networks in Extreme Environments

- -40 to 75°C operating temperature
- Robust fiber optic connections
- 4-channel solution
- Modbus communication with SCADA

Your One-stop Source for Industrial Video Networking Solutions

Do you need to implement your video surveillance system over an IP redundant network under extreme conditions and temperatures? Moxa's complete industrial video networking solution gives you one-stop convenience and industrial ruggedness for mission-critical IP surveillance operation. Products include:

Ethernet Infrastructure:

Industrial Ethernet switches with Gigabit speeds, Power over Ethernet (PoE), fiber optic connections, and redundant protocols.



Video/Voice Transmission:

Industrial-grade video servers and outdoor IP cameras



IP Surveillance Software:

- NVR software for video viewing, recording, and management
- SDK for integrating video images into customers' systems



Industrial Grade Reliability

Most video surveillance products are used in industrial environments. For this reason, Moxa's IP video products are packed with numerous heavy-duty features, adhere to strict industry approvals, and are sure to solve any harsh application challenge that you may encounter.

- Extended temperatures: -40 to 75°C or -40 to 50°C
- Redundant power inputs
- Robust fiber optic support
- EMI and surge protection
- IP30/66 rated enclosure
- High MTBF (> 150,000 hrs)
- DIN-Rail and panel mounting
- Industry approvals: UL508, C1D2/ATEX Z2, DNV, and NEMA TS2

Suitable for a Variety of Applications



Factory and Facility Management

- ▶ Power, oil and gas, water & waste water



Intelligent Transportation Systems

- ▶ Highway, city traffic, road traffic



Harsh Environment Applications

- ▶ Mining, military, maritime



Visual Management for SCADA/HMI Applications

Industrial video surveillance networks that are gradually moving toward Ethernet-based TCP/IP are employing modern SCADA systems and video surveillance devices. Video management software is used to display video images, which can also be displayed on the SCADA server. With real-time video image transmissions and ActiveX SDK support, operators can immediately see what is happening at the field site and can respond accordingly. Moxa's video over IP products allow control engineers to easily integrate video surveillance devices into their SCADA/HMI system to enhance monitoring efficiency and save on labor costs.



Full Range of IP Video Surveillance Solutions

Industrial Video Servers

Moxa's industrial video encoders feature 1-channel and 4-channel video captures to offer a flexible selection of distributed surveillance systems. With their tough industrial design, these proven products are suitable for any application, such as traffic monitoring and factory surveillance. Modbus/TCP is supported for easy communication with SCADA systems. Advanced network functions that include RTSP real-time streaming, IGMP multicast, QoS prioritization, and SNMP are available for easy network management.



4-channel

Ready to ship in Q3, 2009

VPort 354 series Full motion, 4-channel MJPEG/MPEG4 industrial video encoders

- Video stream up to 30 FPS at 4CIF (704 x 480)
- 2-way (1 in, 1 out) audio supported
- -40 to 75°C operating temperature
- 2 fiber optic connections
- 2 Ethernet ports for cascade and port redundancy
- SD card slot for local storage capability
- Modbus Communication with SCADA



4-channel

VPort 254 series 4-channel MJPEG/MPEG4 industrial video encoders

- Video stream up to 30 FPS at CIF (352 x 240)
- -40 to 75°C operating temperature
- Fiber optic Ethernet port supported
- Modbus Communication with SCADA



1-channel

VPort 351 series Full motion, 1-channel MJPEG/MPEG4 industrial video encoders

- Video stream up to 30 FPS at full D1 (720 x 480)
- Pre/post-alarm video recording
- 2-way (1 in, 1 out) audio supported
- -40 to 75°C operating temperature
- Fiber optic Ethernet port



1-channel

VPort D351 1-channel MJPEG/MPEG4 industrial video decoder

- Manual selection or automatic scan with max. of 64 video sources
- 2-way (1 in, 1 out) audio supported
- Transparent control with legacy PTZ controller

Outdoor IP Camera



VPort 25 IP66, day-and-night vandal-proof fixed dome IP camera

- -40 to 50°C operating temperature
- IP66-rated protection
- Direct-wired power input and PoE for power redundancy
- Up to 30 FPS at 720 x 480
- One camera lens for day and night use

IP Surveillance Software

User-friendly IP surveillance software allows users to view multiple video sources as well as to record and analyze the video data. Moxa provides IP video surveillance software to help operators manage surveillance systems of any size. Solutions include:

SoftNVR

Expandable network video recording software for managing up to 64 video camera channels



SoftDVR

Network video recording software for managing up to 16 video camera channels

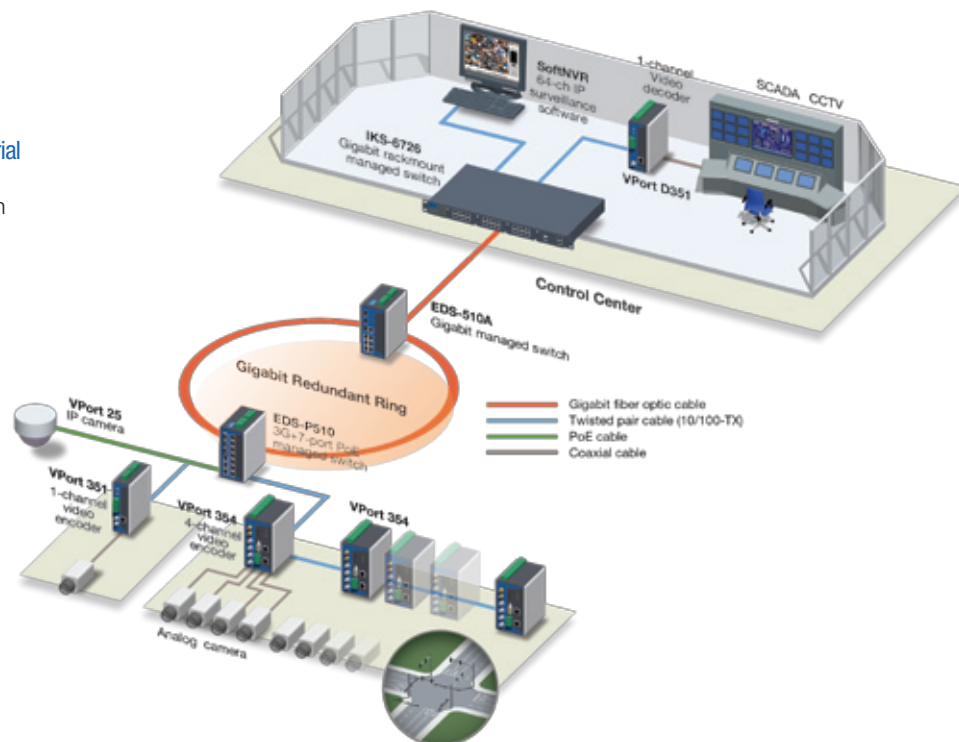


VPort SDK PLUS

Free Software Development Kit for third-party software developers and system integrators

A user-friendly SDK (Software Development Kit) is essential for most video surveillance systems that require customized video management functions or integration with other applications, such as SCADA, access control systems, and fire alarm systems. Moxa's VPort SDK PLUS includes CGI commands, ActiveX, and a C library and is available free of charge to system integrators and third-party software developers.

Industrial Video Networking Solutions from Moxa



Active Ethernet I/O

Enable Remote Monitoring and Alarms over a GPRS Network

- Push technology for hassle-free IP management
- SD slot for data logging
- 4 AIs, 8 DIos and 2 relays



Smart and Seamless Automation Solutions

Moxa offers a full range of Active Ethernet I/O products to fit various industrial automation requirements. Our wireless I/O solution with local intelligence makes remote site monitoring easier to handle, and our slim and flexible modular I/O solution is ideally suited for central site applications that require more I/O points and types.

Benefits and Features

- Genuine PC-free solutions for monitoring and alarm systems
- Zero programming with menu-driven logic configurations
- Active alarm message reports with precise time stamps
- SMS/SNMP traps/e-mail/TCP/UDP/CGI commands supported
- Easy integration with Active OPC server and DLL library

Modular Active Ethernet I/O

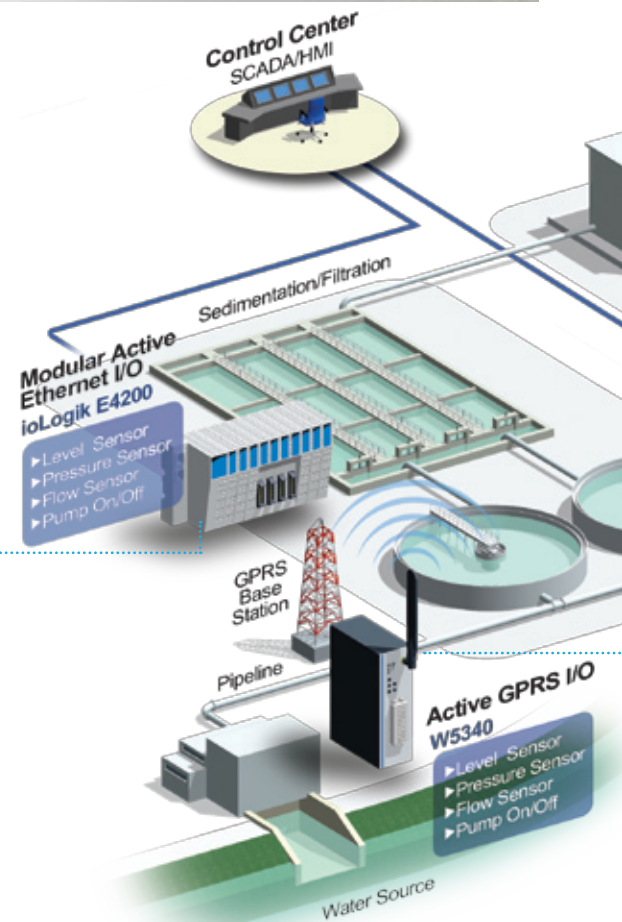
The ioLogik E4200 featuring flexible, slim-type, and versatile I/O modules is suitable for remote monitoring and alarm applications that need more I/O points and a variety of I/O types, such as temperature sensors and water quality detectors. Typical applications include water treatment and power monitoring.

ioLogik E4200 Modular Active Ethernet I/O adaptor

- Slice form factor, high density modular I/O
- Supports up to 16 I/O modules
- Dual LANs support network redundancy
- Front-end Intelligence with event-based logic
- Unicode Active Messaging with real-time stamp, including SMS, SNMP Trap with I/O status, TCP, and email

Applications

- Water treatment/supply systems
- Power monitoring systems

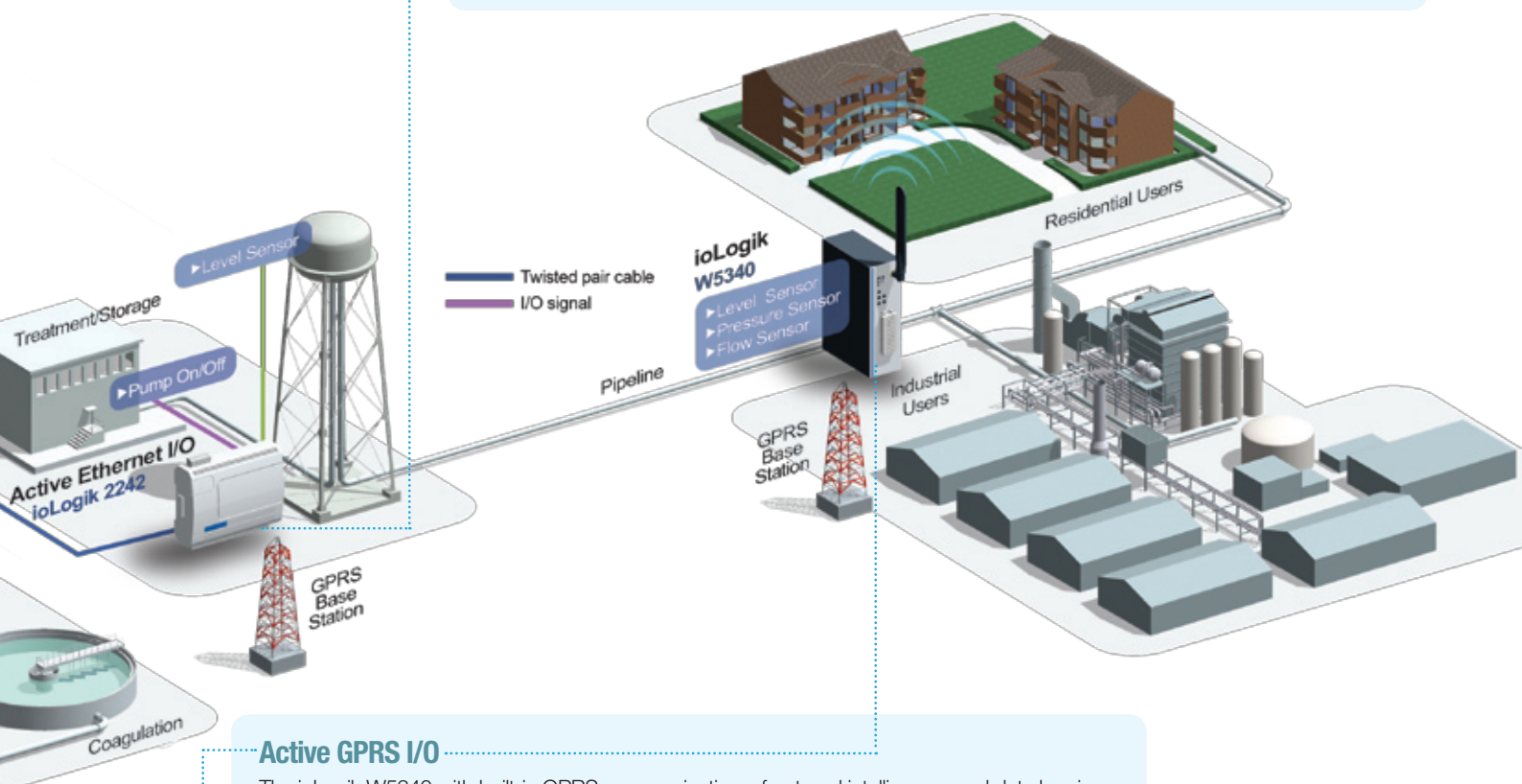


Active Ethernet I/O

Moxa's Active Ethernet I/O delivers active, event-response based reporting and control of I/O devices to the PC-based data acquisition and control field. The I/O status of an Active Ethernet I/O system can be reported automatically based on user-specified conditions. The report-by-exception approach requires far less bandwidth than the traditional polling approach. Critical sensor data can be obtained immediately with real-time stamp instead of being confined to specific points of time, as determined by the polling intervals. This makes data transmission 20 times faster compared with traditional SCADA systems (50 ms compared to 1 sec).

ioLogik E2242 Active Ethernet I/O

- Click&Go Logic makes programming easier
- Active OPC server to save bandwidth
- Peer-to-Peer I/O for easy wiring
- Active alarm messages with time stamps



Active GPRS I/O

The ioLogik W5340 with built-in GPRS communications, front-end intelligence, and data logging function is suitable for cellular remote monitoring and alarm systems, such as automated river monitoring and pipeline monitoring. The wide coverage of remote monitoring applications needs cellular communications and I/O points linked to various sensors, such as flow meters and water level detectors, since installing devices is usually difficult.

ioLogik W5340 Active GPRS I/O with 4 AIs, 8 DI0s, and 2 relay outputs

- GPRS, Ethernet LAN, RS-232/422/485 supported
- Smart Active GPRS connection
- Low power consumption
- Data log 14 days of I/O records
- Secure wake on call ID

Applications

- Riverside monitoring
- Pipeline monitoring



Click&Go

Intelligent Local I/O Control

- PC-free solution with local intelligence
- Programming-free IF-THEN-ELSE logic reduces setup time
- Time stamped active alarm report with TCP, UDP, SNMP Trap, email, SMS, or CGI commands
- Time-based scheduler and timer control
- Input-to-output control over IP with peer-to-peer and remote Action



Functions	IF	THEN	ELSE
	DI	DO	DO
	Relay/Counter	Relay/Pulse	Relay/Pulse
	Internal Register	Internal Register	Internal Register
	Remote Action	Remote Action	Remote Action
	Timer	Timer	Timer
	Schedule	SNMP Trap	SNMP Trap
	Host Communication Failure	Active Message	Active Message
		E-mail	E-mail
		CGI Command	CGI Command
	SMS	SMS	

IF-THEN-ELSE

Since IF-THEN-ELSE statements are a fundamental part of any programming language, even an untrained engineer will be able to use Click&Go's intuitive IF-THEN-ELSE configuration format to finish an I/O configuration in under five minutes.

Active OPC Server Lite

Seamlessly Connect ioLogik to your SCADA Systems

Active OPC Server Lite is a software package that operates as an OPC driver for an HMI or SCADA system. It offers seamless connection from ioLogik products to SCADA systems, including Wonderware, Citect, and iFix. Active OPC Server Lite meets the OPC DA 3.0 standard, which allows connections to various kinds of devices and host OPC machines.

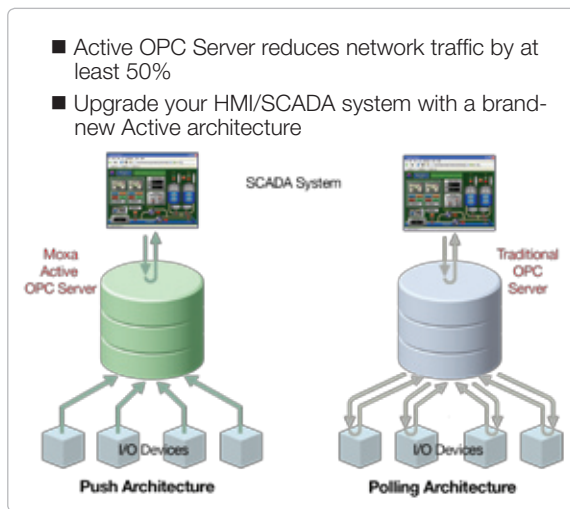
- OPC DA 3.0 supported
- Event-driven tag update
- Save 80% on network bandwidth
- I/O response that's 7 times faster
- Patented automatic tag generation
- Firewall-friendly connection from remote ioLogik devices

Smart I/O Connection Migrating from "Pull" to "Push"

General OPC servers typically use the "pull" architecture to connect to Ethernet I/O devices, which involves an HMI/SCADA system continuously sending out commands to collect relevant data. Active OPC Server supports the standard OPC protocol, but also offers active (or "push") communication with ioLogik series of Active Ethernet I/O products to HMI/SCADA systems, providing instant I/O status reports.

7 Times Faster I/O Response and 80% off of Bandwidth Usage with Event-driven Tag Update

Active OPC Server Lite and the ioLogik series support "Auto Tag Generation," which eliminates the headache of specifying target IP addresses, I/O channels, and data formats one by one, or editing and importing configuration text files. Active tags automatically created by the Active OPC Server Lite and the ioLogik report the I/O status only when it changes. This event-driven tag status update makes the I/O response 7 times faster than 3rd party OPC Server packages in a test of 2,560 I/O channels. In another test of network bandwidth usage, Active OPC Server Lite and the ioLogik reduced traffic by 80%.



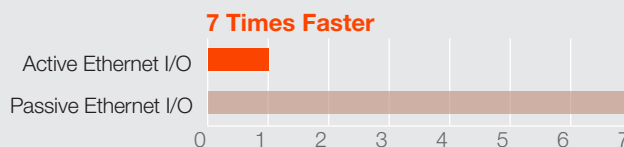
Test I: Network Traffic Comparison

This test used 32 ioLogik E2210 units with 640 DI/O points. As shown in the figure, Active Ethernet I/O can save 80% on bandwidth consumption compared to passive Ethernet I/O.



Test II: Response Time for I/O Status

This test used 128 ioLogik E2210 units with 2,560 I/O points. As shown in the figure, the active architecture is 7 times better than the passive architecture in response time when the I/O status changes.





Industrial I/O Solutions

Analog Modules

ioLogik E2242

(4 AIs, 12 DIos)

- Software configurable DI or DO channels
- +/-150 mV, 0 to 150 mV, +/-500 mV, 0 to 500 mV, +/-5 V, 0 to 5 V, +/-10 V, 0 to 10 V, 0 to 20 mA, 4 to 20 mA
- Adjustable sampling rate



ioLogik E2240

(8 AIs, 2 AOis)

- +/-150 mV, +/-500 mV, +/-5 V, +/-10 V, 0 to 20 mA, 4 to 20 mA
- Adjustable sampling rate
- AI to AO signal replication over IP



Temperature Modules

ioLogik E2260

(6 RTDs, 4 DOis)

- Pt, JPt, Ni, and RTD sensors supported
- Built-in temperature sensor mapping tables
- 16-bit resolution



ioLogik E2262

(8 TC inputs, 4 DOis)

- Supports J, K, T, E, R, S, B, N type TC and mV
- Built-in temperature sensor mapping tables
- 16-bit resolution



Digital Modules

ioLogik E2210

(12 DIis, 8 DOis)

- DI or counter mode supported
- Dry contact or wet contact (NPN) DO or pulse output



ioLogik E2212

(8 DIis, 8 DOis, 4 DIos)

- Software configurable DI or DO channels
- Dry contact or wet contact (PNP/NPN) supported



ioLogik E2214

(6 DIis, 6 relays)

- 6 Form A relays
- Relay: 5A/250 VAC or 5A/30 VDC
- Relay counter for relay usage monitor



Ease of Use

- Programming-free IF-THEN-ELSE control logic
- Manual-driven configuration interface
- Web console

Ease of Integration

- DLL Library SDK
- Active OPC Server (OPC tag creation not needed)
- CGI commands for web-based SCADA

Versatile Communication Methods

- TCP/UDP
- CGI commands
- email
- SNMP trap

Push Technology

- I/O event report by exception
- Built-in RTC to provide precise timestamps for alarm messages
- Save bandwidth by 80%
- Increase response time by 7 times

Modular Active Ethernet I/O

E4200

- Supports 16 I/O modules for up to 256 DI/O points or 64 AI points, or 32 AO points
- Dual Ethernet LAN, and one RS-232 port



Remote Ethernet I/O

ioLogik E1200

Daisy-chain Remote Ethernet I/O

- Built-in 2-port Ethernet switch
- Easy integration with SCADA using Active OPC Server
- Painless migration with user definable Modbus address

E1210	16 DIis	
E1211	16 DOis	
E1212	8 DIis	8 DOis
E1214	6 DIis	6 Relays
E1240	8 AIs	

Available Q3 2009



Active GPRS I/O

ioLogik W5340

(4 AIs, 8 DIos, 2 relays)

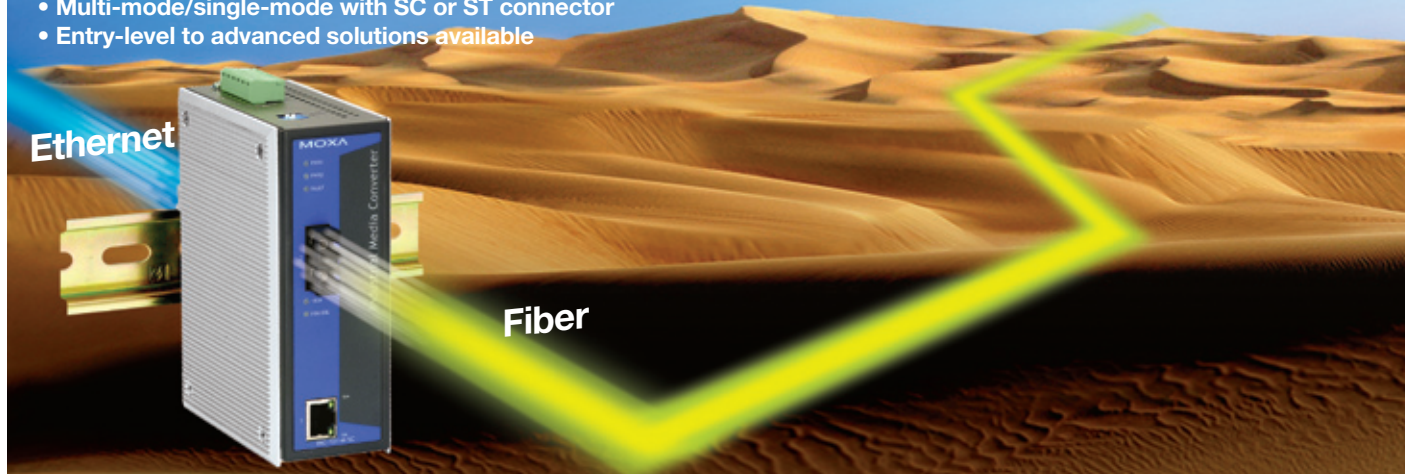
- Quad-band GPRS
- +/-150 mV, +/-500 mV, +/-5 V, +/-10 V, 0 to 20 mA, 4 to 20 mA
- Data logging



Ethernet to Fiber Media Converters

Extend Network Distance and Performance

- Link Fault Pass-Through (LFP)
- -40 to 75°C operating temperature
- Multi-mode/single-mode with SC or ST connector
- Entry-level to advanced solutions available



Flexible, Reliable, and Equipped for Tomorrow's Needs

Moxa offers an array of industrial media converters, from entry-level (IMC-21) to advanced (IMC-101G) solutions, that help you convert Ethernet networks into fiber optic networks both economically and reliably. The IMC series meets industrial grade standards by providing a -40 to 75°C operating temperature, redundant power, and DIN-Rail mounting.

IMC-101G Industrial Gigabit Ethernet to fiber media converter

- 10/100/1000BaseTX and 1000BaseSX/LX/LHX/ZX
- Link Fault Pass-Through (LFP)
- Power failure, port break alarm by relay output
- Dual redundant power input
- -40 to 75°C operating temperature (T models)
- Designed for hazardous locations



IMC-21 Industrial 10/100BaseTX to 100BaseFX & 10BaseT to 10BaseFL media converters



IMC-101 Industrial 10/100BaseTX to 100BaseFX media converters

DIN-Rail 24/48 VDC Power Supplies



DR-4524 (45 W)

- Input: 85-264 VAC (47-63 Hz) or 120-370 VDC
- Output: 48 W, 24 VDC, 0-2 A
- Operating Temp.: -10 to 50°C



DR-75-24 (75 W)

- Input: 85-264 VAC (47-63 Hz) or 120-370 VDC
- Output: 76.8 W, 24 VDC, 0-3.2 A
- Operating Temp.: -10 to 60°C



DR-120-24 (120 W)

- Input: 88-132 VAC/176-264 VAC (47-63 Hz) by switch or 248-370 VDC
- Output: 120 W, 24 VDC, 0-5 A
- Operating Temp.: -10 to 60°C



MDR-40-24 (40 W)

- Input: 85-264 VAC (47-63 Hz) or 120-370 VDC
- Output: 40 W, 24 VDC, 0-1.7 A
- Operating Temp.: -20 to 70°C



MDR-60-24 (60 W)

- Input: 85-264 VAC (47-63 Hz) or 120-370 VDC
- Output: 60 W, 24 VDC, 0-2.5 A
- Operating Temp.: -20 to 70°C



DR-75-48 (75 W)

- Input: 85-264 VAC (47-63 Hz) or 120-370 VDC
- Output: 76.8 W, 48 VDC, 0-1.6 A
- Operating Temp.: -10 to 60°C



DR-120-48 (120 W)

- Input: 88-132 VAC/176-264 VAC (47-63 Hz) by switch or 248-370 VDC
- Output: 120 W, 48 VDC, 0-2.5 A
- Operating Temp.: -10 to 60°C

Your Single Source for All Industrial Ethernet Needs

Seamlessly Integrating Video, Audio, and Data over One Network



Product Portfolio

DIN-Rail Ethernet switches



Rackmount Ethernet switches



Industrial wireless Ethernet



Serial device servers



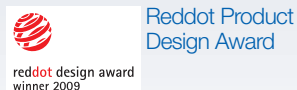
Active Ethernet I/O



Industrial IP video



International Recognition



Why Choose Moxa?

Broadest selection of industrial Ethernet solutions

Moxa offers you one-stop convenience for your industrial Ethernet networking solutions: DIN-Rail and rackmount Ethernet switches, industrial wireless Ethernet, serial device servers, Ethernet-to-fiber media converters, Active Ethernet I/Os, and industrial video networking products.



Optimal price/performance ratio

The unique value of Moxa's products comes from our huge product selection, industrial ruggedness, and best price/performance ratio, allowing us to meet customers' long-term reliability and budget needs.



Recognized best-in-class quality

To guarantee the reliability and non-stop operation of your industrial network, most of Moxa's products have passed 24-hour dynamic burn-in and come with a broad variety of industry certifications, such as Class 1, Div 2/ATEX Zone 2, NEMA TS2, IEC 61850-3, UL508, EN50155, DNV/GL, and much more. In addition, most product lines come with a solid 5-year warranty.



22 years of experience in industrial networking

With over twenty-two years of experience, Moxa provides world-class industrial Ethernet infrastructure solutions for a diverse range of industrial applications, including process automation, power automation, transportation automation, factory automation, and more.



Global scope, local services

Moxa has branch offices on three continents and maintains an extensive network of experienced distributors in more than 60 countries around the world. Through our worldwide sales associates and global technical support, Moxa offers customers prompt in-country sales service, just-in-time delivery, and timely technical support.

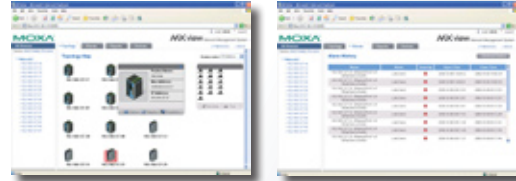


Hot Products

Easily Supervise Your Ethernet Network via Web Browser

MXview Lite Industrial Network Management Software

- Topology visualization
- Event management
- Traffic monitoring
- Device configurations



Moxa's MXview Lite network management software is designed for configuring, monitoring, and troubleshooting Moxa Ethernet switches connected to industrial Ethernet networks. MXview Lite offers an integrated management platform to discover 256 Moxa switches and SNMP-enabled devices installed on multiple subnets. All selected network components can be managed graphically by web browser from both local and remote sites—anytime and anywhere.

For more information, please visit [Moxa website](#).

Experience the Easy-to-use ioLogik Now! Active Ethernet I/O

ioLogik Starter Kit

- ioLogik E2212
- Evaluation board
- Power adaptor
- Quick startup guide
- ioLogik instruction video



ioLogik E2212

Call Today
Special Offer
Expires on
Sep. 30, 2009

Full Gigabit Unmanaged Switches



Full Gigabit Speed

EDS-G205

5-port full Gigabit unmanaged Ethernet switches

- Gigabit speed on every connector
- -40 to 75°C operating temperature
- Dual redundant power
- Greater space efficiency and lower cost

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