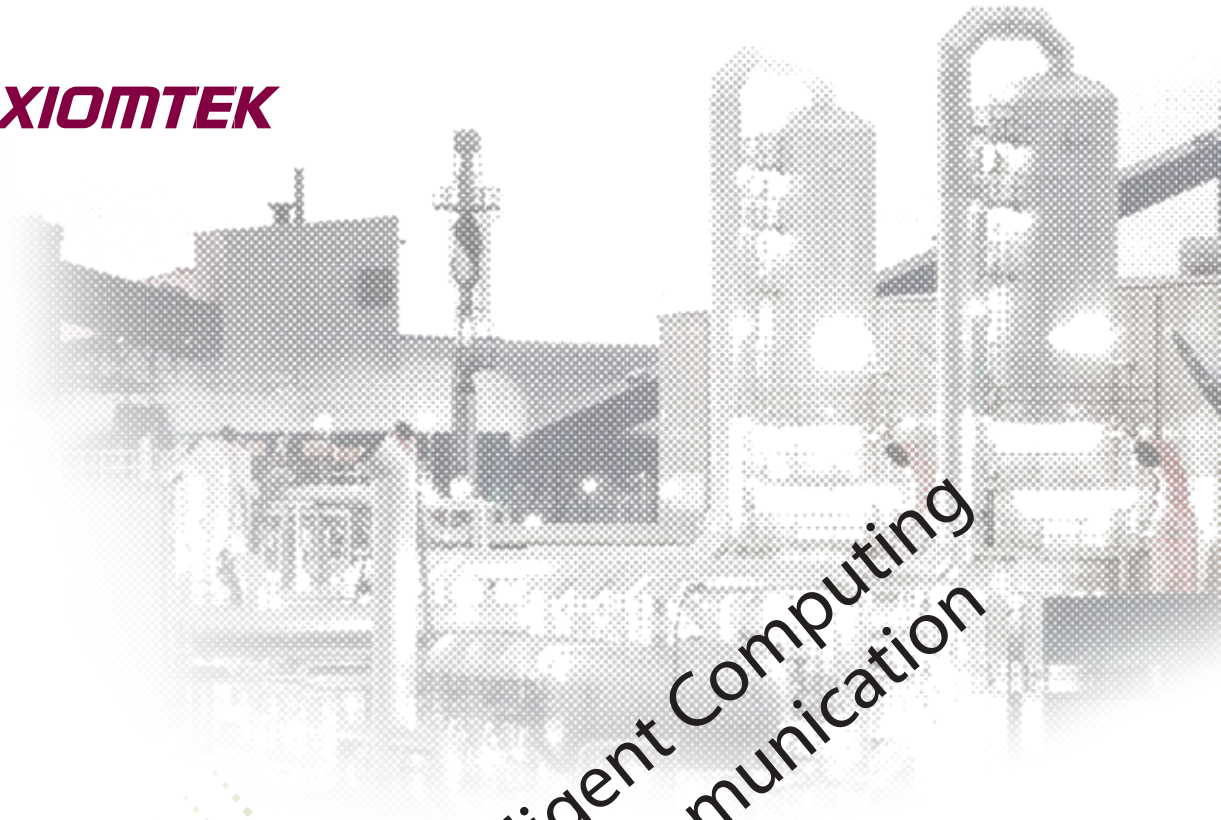
AXIOMTEK



Intelligent Computing and Communication Solutions

- DIN-rack Fanless Embedded Systems
- Industrial Ethernet Extenders
- Media Converters
- Industrial Ethernet Switches
- Serial Device Servers

www.axiomtek.com

Intelligent Communication, Computing, & Management

Main Control Center
Transportation Automation
Power Plant Automation

Ready-to-Run Robust Computing Systems

x86-based DIN-rack Fanless Embedded Systems for Harsh Environments

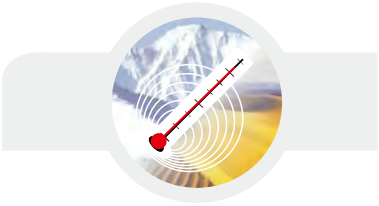
Axiomtek's rBOX100 and rBOX104 DIN-rack fanless embedded systems are suitable for communications control and for protocol converter applications in critical environments. Built for rugged work environments, the rBOX100/104 series features an extra low power consumption Intel® Atom™ processor Z510PT/Z520PT supporting industrial temperature range of -40°C to +70°C. Their front accessible I/O cabling is very convenient for wiring and maintenance. The rBOX100/104 series offers a VGA output, making it particularly well-suited for communication control, SCADA and industrial automation. Its compact size with DIN-rail mounting allows for easy installation into control cabinet. Pre-installed with Linux, Windows® CE 6.0 or Windows® XP Embedded, the rBOX100/104 series provides programmers with a friendly environment for developing application software at a lower cost.

Advantages:

- Fanless operation
- Robust industrial-grade hardware design
- x86 architecture supported
- Flexible I/O expansions
- **-40°C** to **+70°C** wide temperature range
- Compact size with DIN-rail mounting
- Redundant power inputs with power failure alarm
- Meets Safety Agency requirements and complies with EMI/EMS
- Linux, Windows® CE or Windows® XP embedded supported

x86-based Processor and Multiple Connection Options

With an industrial-temperature grade Intel® Atom™ processor Z510PT (1.1 GHz) or Z520PT (1.3 GHz), the rBOX100/104 series can act as a controller for data acquisition, numeric computing and protocol conversion. Multiple built-in serial ports, high speed networking LANs and USB 2.0 ports enables fast and efficient data computation, communication and acquisition.



Extreme Temperatures & Fanless Design

The rBOX100/104 series is designed to withstand temperatures ranging from -40°C to +70°C for use in extremely cold or hot environments. The rBOX100/104 series are robust computers without rotating parts, such as a CPU fan, system fan, and power supply fan. This concept significantly increases reliability, extends MTTR, and ultimately reducing maintenance efforts.

Power-over-Ethernet (PoE)

The rBOX104 is classified as a power sourcing equipment (PSE) with the flexibility of five Ethernet ports, supporting IEEE 802.3af compliant Power-over-Ethernet (PoE) on ports 1 to 4. The rBOX104 can power IEEE802.3af compliant powered devices (PD) and transmit data simultaneously, which saves wiring costs and suitable for outdoor applications such as IP video surveillance, APs, industrial controls, and intercoms.

DIO Output

The digital I/O feature of the rBOX100 provides users with the convenience of connecting digital devices such as digital cameras, camcorders, and screens.

Compact Size with DIN-rail Mounting

The rBOX100 and rBOX104 have a compact form factor, making them ideal for both indoor and outdoor industrial environments where space is limited. To fit various application requirements, the rBOX100/104 series can be DIN-rail mounted.

Regulatory Approvals

The rBOX100 and rBOX104 meet Safety Agency requirements (such as UL508 and UL1604) and have passed heavy industrial EMI/EMS testing (such as EN60950, EN61000-6-4 and EN61000-6-2).

Non-stop Industrial Networking Solutions

Responding to industry need for industrial networking and control specifically designed for rugged environments, Axiomtek introduces:

· Industrial Unmanaged Ethernet Switches
· Redundant Ring Managed Ethernet Switches
· Media Converters
· Industrial Ethernet Extenders
· Serial Device Servers

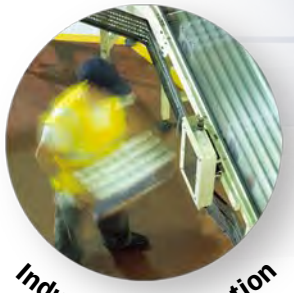
Axiomtek's industrial networking solutions offers the most complete selection for your connectivity needs and the most cost-effective way to manage network efficiency and connect field devices.

Industrial Unmanaged Ethernet Switches

Axiomtek's 5/8/16-port Industrial Unmanaged Ethernet Switches are designed to operate in harsh environments. They are available in standard 10/100Mbps and 10/100/1000Mbps speeds, with both copper wire and fiber optic cable connections. With the exception of the Ethernet generic switches, PoE (Power over Ethernet) switches that sends power and data through an Ethernet cable are also available. All switches feature DIN-rail or panel mount, and come with power options to match applications that require a hardened Ethernet switch.

Advantages:

- Robust and cost-effective
- Compact-size and user-friendly interface
- **-40°C** to **+75°C** wide temperature range
- NEMA TS1/2 & UL1604 & UL60950 certified
- Anti-vibration & anti-shock design
- Wide-range DC or AC power-input options
- α-Ring technology providing fast network recovery within 15mS
- Dual ring for double security
- Alarm for power and port link failure by relay output
- Reduced cabling
- DIN-rail & panel mounting options
- Power options to match application need



Industrial Automation

Power Plant Automation

Security Systems

Media Converters

Axiomtek's Media Converters series can convert different networking interfaces with each other for industrial field applications in harsh environments with operating temperatures of -40°C to +75°C. Each media converter comes with link- fault pass throughput, relay output warning alarm and redundant power inputs, and may be DIN-rail, panel, or rack mounted.

Industrial Ethernet Extenders

Axiomtek's Industrial Ethernet Extender series is a point-to-point Ethernet extender especially designed to operate in harsh environments. Using existing copper telephone wire or coaxial cable, the extender can extend Ethernet connectivity in existing facilities up to 2600 meters (8530 feet). This device is a perfect cost-effective solution for building automation, security surveillance, digital signage, factory automation, and ITS (Intelligent Transportation System).

Redundant Ring Managed Ethernet Switches

Axiomtek's Redundant Ring Managed Ethernet Switches support fast recovery time (<15mS) keeping your industrial Ethernet applications running nonstop. If the primary communication path is disconnected, the redundant ring technology will provide a redundant path in the network within 15mS. The IP30 aluminum housing with DIN-rail or panel mounting helps dissipate heat efficiently making it perfect for space restricted applications. This series can be configured smartly by a web browser, CLI, and windows utility.

Production Line Monitoring Systems

Traffic Control Systems

Serial Device Servers

Axiomtek's industrial serial device servers are a cost-effective and reliable solution for bringing your serial based equipment to Fast Ethernet networks. Different configurations and features are available for specific applications, such as protocol conversion, Real COM drivers, and TCP operation modes to name a few.

Traffic Control System

Public sectors have demanding applications for Ethernet, especially in Traffic Control. Major intersections in a city can be monitored real-time through Ethernet by traffic management center personnel. The management center can control traffic lights, take pictures of intersections, and record live traffic feeds to store for reference later on.

Axiomtek's Ethernet devices integrate control, communication, management, and video to fulfill demanding requirements in traffic control applications. Our robust design is perfect for outdoor installations, with operating temperatures ranging from -40°C to +75°C and high humidity. Our Ethernet devices are compliant with NEMA TS1 & TS2 environmental requirements for traffic control equipment.

Our Solutions:

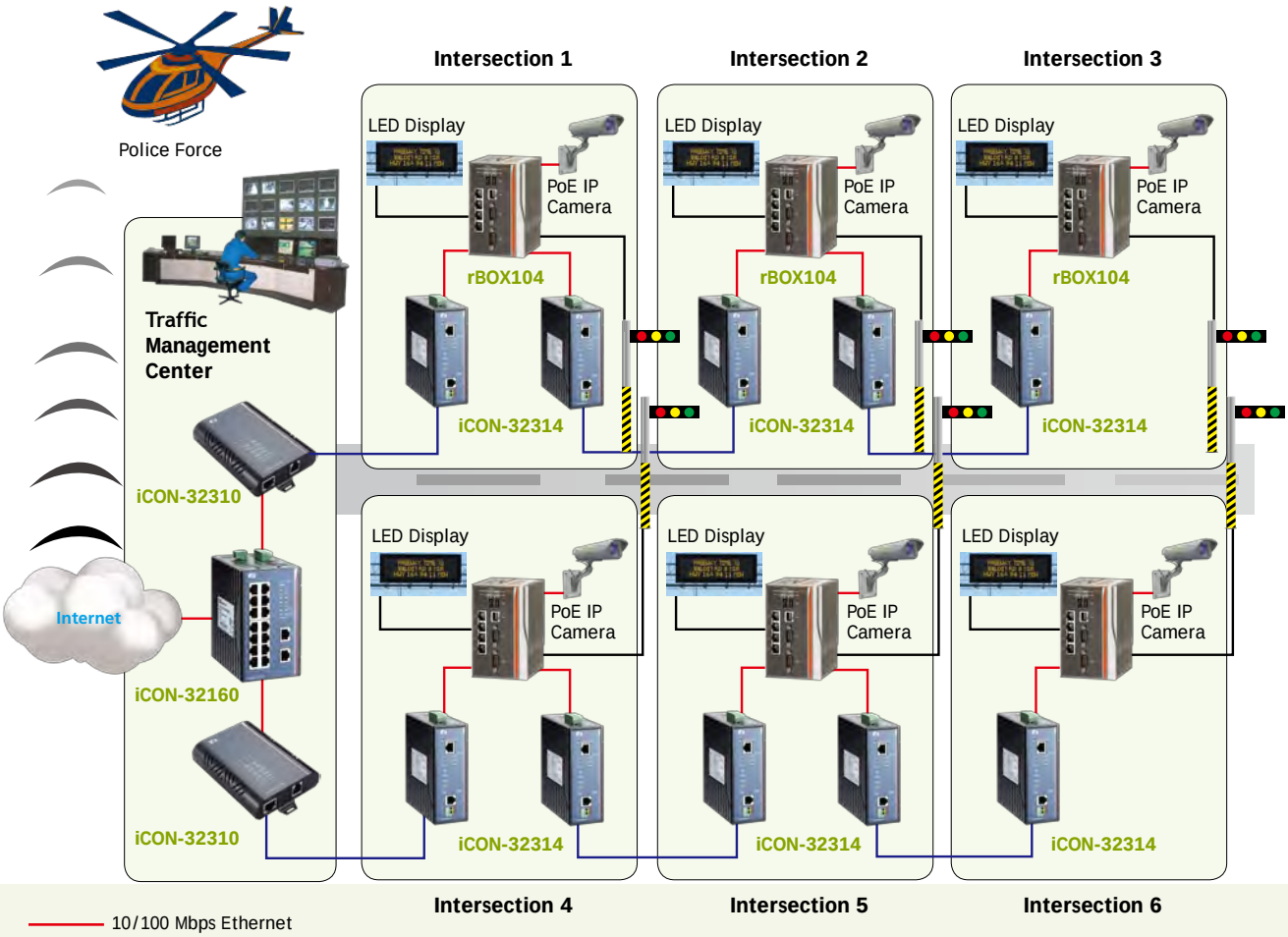
rBOX104
Robust DIN-rack Fanless Embedded System with Intel® Atom™ Processor Z510PT/Z520PT up to 1.3 GHz, Intel® US15WPT Chipset and 4-port PoE

iCON-32008
Hardened Unmanaged Switch with 8-port 10/100Base-TX (-40ºC ~ +75ºC)

iCON-32160
Hardened Unmanaged Ethernet Switch with 16-port 10/100Base-TX (-40ºC ~ +75ºC)

iCON-32310
10/100Base-TX Industrial Ethernet Extender over Copper Wire with DIN-rail Mounting Kits and Power Adaptor (-20ºC ~ +60ºC)

iCON-32314
10/100Base-TX Hardened Ethernet Extender over Copper Wire (-40ºC ~ +75ºC)



Rail Rapid Transit

For many people living in metropolitan areas, rail rapid transit is their main form of transportation. Top priority for rail transit companies is to ensure system stability and passenger safety. Axiomtek's networking devices integrates a variety of I/O ports to support different interfaces to enable video, voice, and data transmission needed for passenger entertainment, emergency intercoms, and video surveillance.

Feature includes 10/100/1000 Mbps transmission rate, Power-over-Ethernet, Turbo Ring, replay output alarm, and various mounting options. Moreover, our networking devices are comprised of high quality components with advantages of wide temperature range (-40°C ~ +75°C) and longer MTBF.

Our Solutions:

rBOX100

Robust DIN-rack Fanless Embedded System with Intel® Atom™ Processor Z510PT/Z520PT up to 1.3 GHz, Intel® US15WPT Chipset and DIO (8 in/out)

iCON-32333

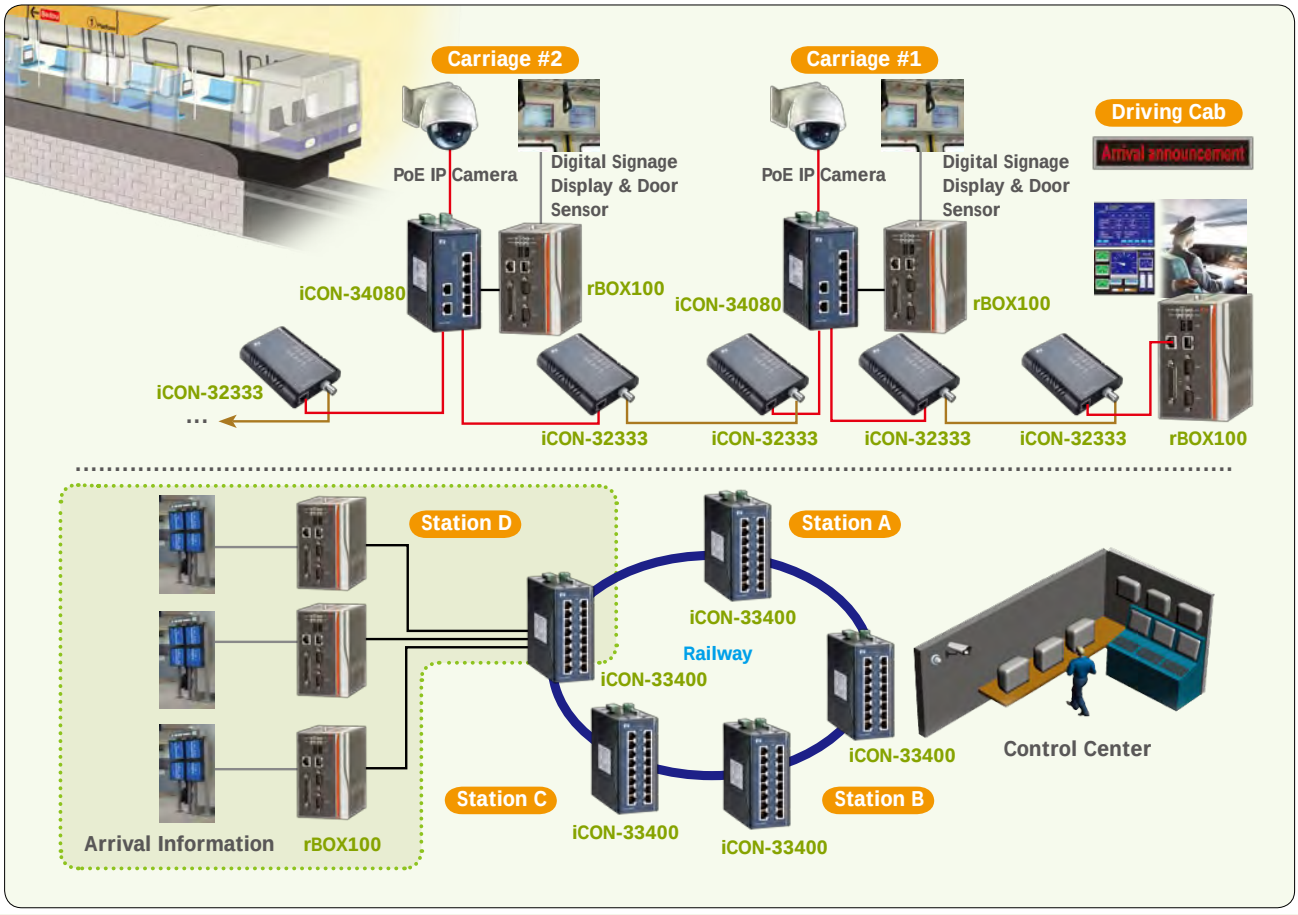
10/100Base-TX Industrial Ethernet Extender over Coaxial Cable with External Power Adapter (-10ºC ~ +60ºC)

iCON-34080

Hardened Unmanaged PoE Switch with 8-port 10/100Base-TX (-40ºC ~ +75ºC)

CON-33400

16-port Redundant Ring 10/100Base Hardened Managed Ethernet Switch with 2-port Combo Gigabit



10/100 Mbps Ethernet
10/100/1000 Mbps Ethernet
Coaxial Cable for VDSL
Fiber Cable

Nuclear Power Plant

Nuclear Power plants need to maintain the highest standards of reliability, especially in the sensor sites, where it is most dangerous and harmful to individuals and the environment. Axiomtek now brings rugged automation solutions to factory and plant operations by offering various Ethernet-enabled product solutions to fulfill different requirements of industrial automation. In the diagram below, we setup two Ethernet-ring infrastructures by industrial managed Ethernet switches in the plant area. The first ring for sensors adopts the PoE Ethernet switches with PoE IP camera so that operators can monitor hazardous equipment with their corresponding temperature, level, pressure and status, and is also equipped with our DIN-rack fanless embedded system to support the A/D I/O modules onsite. Through the Ethernet connectivity, it can work with industrial PLC devices to control a machine or equipment. The second ring is for the control center. The two Ethernet rings both support "ring coupling" and "α-ring" technologies to fit various installation environments.

Our Solutions:

rBOX100

Robust DIN-rack Fanless Embedded System with Intel® Atom™ Processor Z510PT/Z520PT up to 1.3 GHz, Intel® US15WPT Chipset and DIO (8 in/out)

iCON-33400

16-port Redundant Ring 10/100Base-TX Hardened Managed Ethernet Switch with 2-port Combo Gigabit (-40ºC ~ +75ºC)

iCON-34080

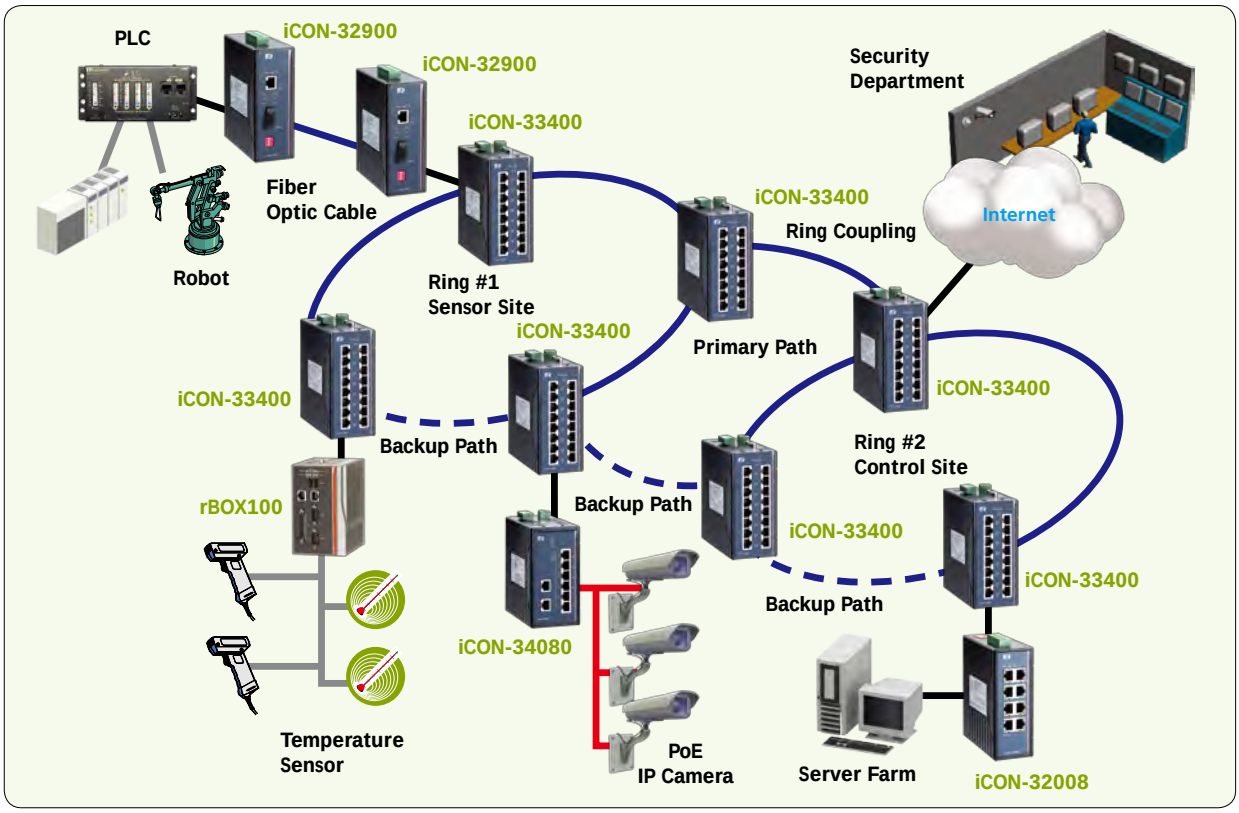
Hardened Unmanaged PoE Switch with 8-port 10/100Base-TX (-40ºC ~ +75ºC)

iCON-32900

10/100Base-TX to 100Base-FX Media Converter (-40ºC ~ +75ºC)

iCON-32008

Hardened Unmanaged Switch with 8-port 10/100Base-TX (-40ºC ~ +75ºC)



10/100/1000 Mbps Ethernet
10/100 Mbps Ethernet
Fiber Cable

AXView 2010

To streamline implementation of management applications, Axiomtek has launch 'AXView 2010' packages for customers to build their own unique management systems easily and quickly. By importing private MIB, Axiomtek platforms with AXView could be easily integrated into standard SNMP-based management systems. Base on standard SNMP protocols, AXView contains a variety of easy-to-use management utilities, agent services and libraries.

Four major modules:

Libraries (DLL)

- Local Monitoring (CPU clock, FAN speed, thermal, WDT, case open, current working voltages, H.D.D.(S.M.A.R.T.), hibernation...etc.)
- Remote Monitoring (FAN speed, thermal, WDT, case open, working voltages, H.D.D. (S.M.A.R.T.), hibernation, settings...etc.)
- C/C++,C#...etc.

Management Utilities

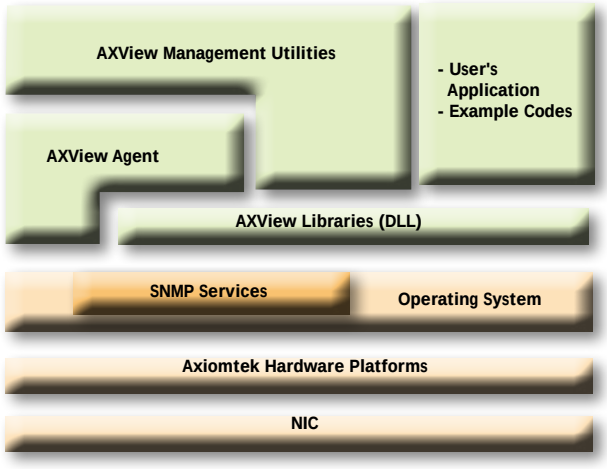
- Local monitoring
- Remote monitoring

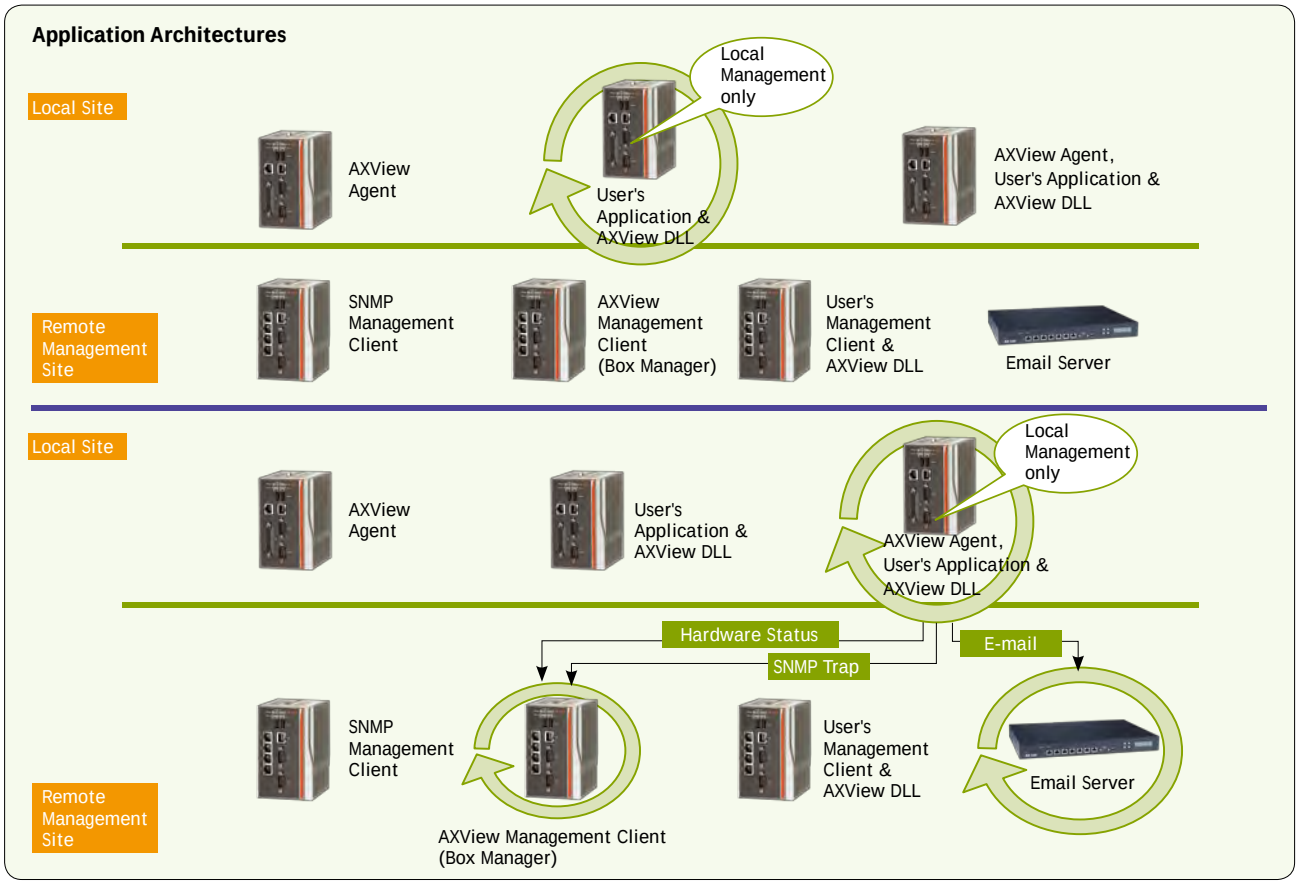
Agent

- On-line monitoring system
  - Overheating
  - Fan stop
  - Case open
  - LAN drop
  - Working voltage beyond pre-defined normal range
  - USB devices changed
- Fire alarm by sending (SNMP trap & email)

Private MIB

- Easily integrates into well-known SNMP management systems





Robust DIN-rack Fanless Embedded Systems

Features\Models	rBOX100	rBOX104
CPU	Intel® Atom™ processor Z510PT (1.1 GHz) or Z520PT (1.3 GHz)	Intel® Atom™ processor Z510PT (1.1 GHz) or Z520PT (1.3 GHz)
System Memory	1 x DDR2 SODIMM	1 x DDR2 SODIMM
System I/O Outlet	2 x RS-232/422/485 (COM 1/2)	2 x RS-232/422/485 (COM 1/2)
	2 x 10/100/1000Mbps Ethernet w/magnetic isolation protection	1 x 10/100/1000Mbps Ethernet w/magnetic isolation protection
	2 x USB 2.0	2 x USB 2.0
	1 x DIO (8 in/out)	4 x PoE (IEEE802.3af)
	1 x VGA	1 x VGA
	1 x DC jack power input with terminal block	1 x DC jack power input with terminal block
Watchdog Timer	255 levels, 0 ~ 255 sec.	255 levels, 0 ~ 255 sec.
Storage	1 x CompactFlash™	1 x CompactFlash™
Installation	DIN-rail	DIN-rail
Power Supply	12~48VDC	48VDC
Operating Temperature	-40°C ~ +70°C (-40°F ~ +158°F)	-40°C ~ +70°C (-40°F ~ +158°F)
Storage Temperature	-45°C ~ +85°C (-49°F ~ +185°F)	-45°C ~ +85°C (-49°F ~ +185°F)
Humidity	5% ~ 95%	5% ~ 95%
Weight	1 kg (2.2 lb)	1 kg (2.2 lb)
Dimensions (W x D x H)	81 mm (3.18") x 110 mm (4.33") x 135 mm (5.31")	81 mm (3.18") x 110 mm (4.33") x 135 mm (5.31")
EOS Support	CE/XPE/Linux	CE/XPE/Linux
Safety	UL1604 (Hazardous Locations: class 1, division 2 group A, B, C & D)	UL1604 (Hazardous locations: class 1, division 2 group A, B, C & D)
	UL508	UL508
	UL60950-1	UL60950-1
	EN60950-1	EN60950-1
	IEC60950-1	IEC60950-1
EMI	FCC part 15, class A	FCC part 15, class A
	EN61000-6-4 * EN55022 * EN61000-3-2 * EN61000-3-3	EN61000-6-4 * EN55022 * EN61000-3-2 * EN61000-3-3
EMS	EN61000-6-2	EN61000-6-2
	EN61000-4-2 (ESD standards) * Contact: +/- 6KV; criteria B * Air: +/- 8KV; criteria B	EN61000-4-2 (ESD standards) * Contact: +/- 6 KV; criteria B * Air: +/- 8 KV; criteria B
	EN61000-4-3 (radiated RFI standards) * 10V/m, 80 to 1000 MHz; 80% AM criteria A	EN61000-4-3 (radiated RFI standards) * 10V/m, 80 to 1000 MHz; 80% AM criteria A
	EN61000-4-4 (burst standards) * Signal ports: +/- 4KV; criteria B * DC power ports: +/- 4KV; criteria B	EN61000-4-4 (burst standards) * Signal ports: +/- 4 KV; criteria B * DC power ports: +/- 4 KV; criteria B
	EN61000-4-5 (surge standards) * Signal ports: +/- 1KV; line-to-line; criteria B * DC power ports: +/- 0.5KV; line-to-earth; criteria B	EN61000-4-5 (surge standards) * Signal ports: +/- 1 KV; line-to-line; criteria B * DC power ports: +/- 0.5 KV; line-to-earth; criteria B
	EN61000-4-6 (induced RFI standards) * Signal ports: 10 Vrms @ 0.15~80 MHz; 80% AM criteria A * DC power ports: 10 Vrms @ 0.15~80 MHz; 80% AM criteria A	EN61000-4-6 (induced RFI standards) * Signal ports: 10 Vrms @ 0.15~80 MHz; 80% AM criteria A * DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A
	EN61000-4-8 (magnetic field standards) * 30A/m @ 50, 60 Hz; criteria A	EN61000-4-8 (magnetic field standards) * 30A/m @ 50, 60 Hz; criteria A
Environmental Test Compliance	IEC60068-2-6 Fc (vibration resistance) 5 g @ 10 ~ 150 KHz, amplitude 0.35 mm (operation/storage/transport)	IEC60068-2-6 Fc (vibration resistance) 5 g @ 10 ~ 150 KHz, amplitude 0.35 mm (operation/storage/transport)
	IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-size shock pulse; operation); 50 g @ 11 ms (half-size shock pulse; storage/transport)	IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-size shock pulse; operation); 50 g @ 11 ms (half-size shock pulse; storage/transport)
	IEC60068-2-32 Ed (free fall) 1 M (3.281 feet)	IEC60068-2-32 Ed (free fall) 1 M (3.281 feet)

Industrial Ethernet Extenders

Features\Models	iCON-32310 Series	iCON-32314 Series	iCON-32333 Series	iCON-3341 Series	iCON-3344 Series
Ethernet Interface					
10/100Base-TX	1	1	1	1	1 (M12 Conn.)
100Base-FX	-	-	-	-	-
VDSL Interface					
RJ-11	1	1	-	-	-
Terminal Block	-	1	-	-	-
BNC	-	-	1	1	1
Mode of Operations					
Auto-negotiation, Auto-MDI/MDI-X	Yes	Yes	Yes	Yes	Yes
Store & Forward	-	-	-	-	-
Casing					
Aluminum	Yes	Yes	Yes	Yes	Yes
Metal	-	-	-	-	-
Plastic	-	-	-	-	-
Dimensions (W x D x H, mm)	80.3 x 109.2 x 23.8	50 x 110 x 135	80.3 x 109.2 x 23.8	50 x 110 x 135	50 x 110 x 135
Installation					
DIN-Rail Mounting	Yes	Yes	Yes	Yes	Yes
Rack Mounting	-	Yes	-	Yes	Yes
Panel Mounting	-	Yes	-	Yes	Yes
Wall Mounting	Yes	-	Yes	-	-
Chassis	Yes	-	Yes	-	-
Power Input					
Power Redundancy	-	Yes	-	Yes	Yes
12-32VDC (Terminal Block)	-	Yes	-	Yes	Yes
12VDC (DC Jack)	Yes	Yes	Yes	Yes	Yes
Operating Temperature					
-10°C ~ +60°C (+14°F ~ +140°F)	-	-	Yes	-	-
-20°C ~ +60°C (-4°F ~ +140°F)	Yes	-	-	-	-
-40°C ~ +75°C(-40°F ~ +167°F)	-	Yes	-	Yes	Yes
Management Function					
RS-232 Console port	-	-	-	-	-
SNMP	-	-	-	-	-
Web Management	-	-	-	-	-
CLI Management	-	-	-	-	-
Regulatory Approvals					
CE/FCC	Yes	Yes	Yes	Yes	Yes
VCCI	Yes	Yes	Yes	Yes	Yes
UL/cUL 60950-1	Yes	-	-	-	-
UL 508	-	Yes	Yes	Yes	Yes
ISA 12.12.01	-	Yes	-	-	-
NEMA	-	Yes	-	Yes	Yes

Media Converters

Features\Models	iCON-32900 Series	iCON-32900L Series	iCON-32901 Series	iCON-32901L Series	iCON-1141
Interface & Port Combinations					
10/100Base-TX	1	1	-	-	1
100Base-FX	1 0	1 0	-	-	1 0
100Base-BX WDM	0 1	0 1	-	-	0 1
10/100/1000Base-TX	-	-	-	1	-
1000Base-T	-	-	1	-	-
1000Base-SX/LX	-	-	1 0	1 0	-
1000Base-BX WDM	-	-	0 1	0 1	-
Alarm Contact	Yes	-	Yes	-	Yes
Mode of Operations					
Auto-negotiation, Auto-MDI/MDI-X	Yes	Yes	Yes	Yes	Yes
Flow Control	Yes	Yes	-	Yes	Yes
Store & Forward	Yes	Yes	-	Yes	Yes
Link Fault Pass Through	Yes	Yes	Yes	-	Yes
Casing					
Aluminum	Yes	Yes	Yes	Yes	Yes
Metal	-	-	-	-	-
Plastic	-	-	-	-	-
Dimensions (W x D x H, mm)	50 x 110 x 135	80.3 x 109.2 x 23.8	50 x 110 x 135	80.3 x 109.2 x 23.8	50 x 110 x 135
Installation					
DIN-Rail Mounting	Yes	-	Yes	-	Yes
Rack Mounting	Yes	-	Yes	-	Yes
Panel Mounting	Yes	-	Yes	-	Yes
Wall Mounting	-	Yes	-	Yes	-
Desktop	-	-	-	-	-
Chassis	-	Yes	-	Yes	-
Power Input					
Power Redundancy	Yes (TB only)	-	Yes (TB only)	-	Yes
12-48VDC (Terminal Block)	Yes	-	Yes	-	Yes
48VDC (Terminal Block)	-	-	-	-	-
12VDC (DC Jack)	Yes	Yes	Yes	Yes	Yes
48VDC (DC Jack)	-	-	-	-	-
PoE	-	-	-	-	-
Operating Temperature					
0°C ~ +45°C (+32°F ~ +113°F)	-	Yes	-	Yes	-
-10°C ~ +60°C (-14°F ~ +140°F)	-	-	-	-	-
-40°C ~ +75°C (-40°F ~ +167°F)	Yes	-	Yes	-	Yes
Regulatory Approvals					
CE/FCC	Yes	Yes	Yes	Yes	Yes
VCCI	-	Yes	-	Yes	Yes
UL/cUL 60950-1	Yes	Yes	Yes	-	-
UL 508	-	-	-	-	Yes
UL 1604	Yes	-	Yes	-	-
NEMA	Yes	-	Yes	-	Yes
IEC61850	-	-	-	-	Yes

* More 100Base-FX Fiber options are available upon request

Redundant Ring Managed Ethernet Switches

Features\Models	iCON-27000 Series		iCON-33000 Series		iCON-77000 Series	
Interface & Port Combinations						
Max. Number of Ports	28	28	18	10	28	28
Gigabit Ethernet 10/100/1000 Mbps	4	4	2	8	4	4
Max. 10/100/1000Base TX	4	4	2	-	4	4
Max. 1000Base SX/LX	-	-	2	-	-	-
Fast Ethernet 10/100 Mbps	24	24	16	2	24	24
Max. 10/100Base-TX	4	16	16	-	24	16
Max. 100Base-FX	-	8	-	2	-	8
RS-232 Contact	Yes		Yes		Yes	
Alarm Contact	-		Yes		Yes	
Performance						
MAC Address Table Size	8192		8192		8192	
Packet Buffer Memory (bits)	3M		2M		3M	
Casing						
Aluminum/Metal	Metal		Aluminum		Metal	
Dimensions (W x D x H, mm)	442 x 250 x 44.2 (Single Power) 442 x 360 x 44.2 (Redundant Power)		65 x 125 x 145		442 x 375 x 44.2 (Redundant Power)	
Installation						
DIN-Rail Mounting	-		Yes		-	
Rack Mounting	Yes		-		Yes	
Panel Mounting	-		Yes		-	
Wall Mounting	-		-		-	
Power Input						
Power Redundancy	Optional		Yes		Optional	
110-240VAC	Yes		-		Yes	
12-32VDC (Terminal Block)	-		Yes		-	
48VDC (Terminal Block)	-		-		-	
12VDC (DC Jack)	-		Yes		-	
48VDC (DC Jack)	-		-		-	
Operating Temperature						
-40°C ~ +75°C (-40°F ~ +167°F)	Yes		Yes		Yes	
Network Redundancy						
α-Ring (Recovery Time < 15 ms)	Yes		Yes		Yes	
STP/RSTP	Yes		Yes		Yes	
MSTP	Yes		Yes		Yes	
Network Management & Control						
VLAN	Yes		Yes		Yes	
QoS	Yes		Yes		Yes	
IGMP	Yes		Yes		Yes	
GMRP	Yes		Yes		Yes	
Bandwidth Rate Control	Yes		Yes		Yes	
LACP	Yes		Yes		Yes	
Port Trunking	Yes		Yes		Yes	
Port Mirroring	Yes		Yes		Yes	
Packet Filtering	Yes		Yes		Yes	
IEEE802.1x Security	Yes		Yes		Yes	
SNMP	v1, v2c, v3		v1, v2c, v3		v1, v2c, v3	
RMON	Yes		Yes		Yes	
Web Management	Yes		Yes		Yes	
Telnet Management	Yes		Yes		Yes	
RS-232 Console Management	Yes		Yes		Yes	
Regulatory Approvals						
CE/FCC	Yes		Yes		Yes	
VCCI	Yes		Yes		Yes	
UL/cUL 60950-1	-		-		-	
UL 508	-		Yes		Yes	
UL 1604	-		Yes		-	
NEMA	-		Yes		Yes	

Redundant Ring Managed Ethernet Switches

Features\Models	iCON-78000 Series		iCON-87000 Series	
Interface & Port Combinations				
Max. Number of Ports	10	12	28	28
Gigabit Ethernet 10/100/1000 Mbps	2	2	4	4
Max. 10/100/1000Base TX	2	2	4	4
Max. 1000Base SX/LX	-	-	-	-
Fast Ethernet 10/100 Mbps	8	10	24	24
Max. 10/100Base-TX	8 (w/PoE)	8 (w/PoE)	24	16
Max. 100Base-FX	-	2	-	8
RS-232 Contact	Yes		Yes	
Alarm Contact	Yes		Yes	
Performance				
MAC Address Table Size	8192		8192	
Packet Buffer Memory (bits)	2M		3M	
Casing				
Aluminum/Metal	Metal		Metal	
Dimensions (W x D x H, mm)	65 x 145 x 165		Single Power: 442 x 284 x 44.2 Redundant Power: 442 x 375 x 44.2	
Installation				
DIN-Rail Mounting	Yes		-	
Rack Mounting	-		Yes	
Panel Mounting	-		-	
Wall Mounting	-		-	
Power Input				
Power Redundancy	Yes		Optional	
110-240VAC	-		Yes	
12-32VDC (Terminal Block)	-		-	
48VDC (Terminal Block)	Yes		-	
12VDC (DC Jack)	-		-	
48VDC (DC Jack)	-		-	
Operating Temperature				
-40°C ~ +75°C (-40°F ~ +167°F)	Yes		Yes	
Network Redundancy				
α-Ring (Recovery Time < 15 ms)	Yes		Yes	
STP/RSTP	Yes		Yes	
MSTP	Yes		Yes	
Network Management & Control				
VLAN	Yes		Yes	
QoS	Yes		Yes	
IGMP	Yes		Yes	
GMRP	Yes		Yes	
Bandwidth Rate Control	Yes		Yes	
LACP	Yes		Yes	
Port Trunking	Yes		Yes	
Port Mirroring	Yes		Yes	
Packet Filtering	Yes		Yes	
IEEE802.1x Security	Yes		Yes	
SNMP	v1, v2c, v3		v1, v2c, v3	
RMON	Yes		Yes	
Web Management	Yes		Yes	
Telnet Management	Yes		Yes	
RS-232 Console Management	Yes		Yes	
Regulatory Approvals				
CE/FCC	Yes		Yes	
VCCI	Yes		Yes	
UL/cUL 60950-1	Yes		-	
UL 508	Yes		Yes	
UL 1604	-		-	
NEMA	-		-	
IEC-61850-3/IEEE1613	-		Yes	
EN50121-4	-		Yes	

*More 100Base-FX Fiber options are available upon request ** More Gigabit options are available upon request

Industrial Unmanaged Ethernet Switches

Features\Models	iCON-32005 Series		iCON-32008 Series		iCON-32008L Series	
Type	Industrial Unmanaged Ethernet Switches					
Interface						
Max. 100Base Ports	5		8		8	
Max. 1000Base Ports	-		-		-	
Max. PoE Ports	-		-		-	
Port Combinations						
10/100Base-TX	5	4	8	6	8	6
100Base-FX	0	1	0	2	0	2
10/100/1000Base-TX	-		-		-	
1000Base-SX/LX/BX WDM	-		-		-	
Alarm Contact	-		Yes		Yes	
Performance						
MAC Address Table Size	2048		2048		2048	
Packet Buffer Memory (bits)	384K		768K		768K	
Casing						
Aluminum	-		Yes		Yes	
Metal	-		-		-	
Plastic	Yes		-		-	
Dimensions (W x D x H, mm)	26 x 70 x 110		50 x 110 x 135		50 x 125 x 135	
Installation						
DIN-Rail Mounting	Yes		Yes		Yes	
Rack Mounting	-		-		Yes	
Panel Mounting	-		Yes		Yes	
Wall Mounting	-		-		-	
Power Input						
Power Redundancy	-		Yes		Yes	
12-30VDC (Terminal Block)	-		-		Yes	
12-32VDC (Terminal Block)	-		-		-	
12-48VDC (Terminal Block)	Yes		Yes		-	
48VDC (Terminal Block)	-		-		-	
12VDC (DC Jack)	-		Yes		Yes	
48VDC (DC Jack)	-		-		-	
Operating Temperature						
-10°C ~ +60°C (-14°F ~ +140°F)	Yes		-		-	
-20°C ~ +60°C (-4°F ~ +140°F)	-		-		Yes	
-40°C ~ +75°C (-40°F ~ +167°F)	-		Yes		-	
Regulatory Approvals						
CE/FCC	Yes		Yes		Yes	
VCCI	Yes		Yes		-	
UL/cUL 60950-1	Yes		Yes		Yes	
UL 508	-		-		-	
UL 1604	-		Yes		-	
DNV/GL	-		-		-	
NEMA	-		Yes		-	

* More 100Base-FX Fiber options are available upon request

Industrial Unmanaged Ethernet Switches / PoE Switches

Features\Models	iCON-32160 Series		iCON-34080 Series		iCON-34080L Series	
Type			Industrial Unmanaged PoE (Power over Ethernet) Switches			
Interface						
Max. 100Base Ports	16		8		8	
Max. 1000Base Ports	-		-		-	
Max. PoE Ports	-		4		4	
Port Combinations						
10/100Base-TX	16	14	8	6	8	6
100Base-FX	0	2	0	2	0	2
10/100/1000Base-TX	-		-		-	
1000Base-SX/LX/BX WDM	-		-		-	
Alarm Contact	Yes		Yes		Yes	
Performance						
MAC Address Table Size	4096		1024		1024	
Packet Buffer Memory (bits)	1.625M		1M		1M	
Casing						
Aluminum	Yes		Yes		Yes	
Metal	-		-		-	
Plastic	-		-		-	
Dimensions (W x D x H, mm)	75.5 x 110 x 135		68 x 110 x 135		62 x 110 x 135	
Installation						
DIN-Rail Mounting	Yes		Yes		Yes	
Rack Mounting	Yes		Yes		Yes	
Panel Mounting	Yes		Yes		Yes	
Wall Mounting	-		-		-	
Power Input						
Power Redundancy	Yes		Yes		Yes	
12-30VDC (Terminal Block)	-		-		-	
12-32VDC (Terminal Block)	-		-		-	
12-48VDC (Terminal Block)	Yes		-		-	
48VDC (Terminal Block)	-		Yes		Yes	
12VDC (DC Jack)	Yes		-		-	
48VDC (DC Jack)	-		Yes		Yes	
Operating Temperature						
-10°C ~ +60°C (-14°F ~ +140°F)	-		-		Yes	
-20°C ~ +60°C (-4°F ~ +140°F)	-		-		-	
-40°C ~ +75°C (-40°F ~ +167°F)	Yes		Yes		-	
Regulatory Approvals						
CE/FCC	Yes		Yes		Yes	
VCCI	Yes		-		-	
UL/cUL 60950-1	-		-		-	
UL 508	Yes		Yes		Yes	
UL 1604	-		-		-	
DNV/GL	-		Yes		-	
NEMA	Yes		Yes		-	

* More 100Base-FX Fiber options are available upon request

Serial Device Servers

Features\Models	iCON-31101	iCON-31110	iCON-31304	iCON-31302	iCON-31320
Ethernet Interface					
10/100Base-TX	1 or 0	1 or 0	2, 1 or 0	2, 1 or 0	2, 1 or 0
100Base-FX	0 or 1	0 or 1	0, 1 or 2	0, 1 or 2	0, 1 or 2
1.5KV Magmetic Isolation	Yes	Yes	Yes	Yes	Yes
Wireless	-	-	-	-	-
Serial Interface					
RS-232/422/485	1	-	4	2	-
RS-422/485	-	1	-	-	2
Connector	DB9	TB5	RJ50	DB9	TB5
2KV Serial Line Isolation	-	Yes	-	-	Yes
ESD Protection	15KV	15KV	15KV	15KV	15KV
Speed Communication Parameters Flow Control	50 bps to 460.8 Kbps Parity: None, Even, Odd, Space, Mark; Data Bits: 5, 6, 7, 8; Stop Bit: 1, 1.5, 2 None, RTS/CTS, Xon/Xoff				
Software					
Network Protocols Operation Modes COM Driver Support Configuration Options	ICMP, IP, TCP, UDP, DHCP client, BOOTP, Telnet, Rtelnet, DNS, SNMPv2, HTTP, SSH, Reverse SSH, SNTP, ARP, RARP, RFC2217 Virtual COM, TCP server, TCP client, UDP, Pair Connection Windows® 2000/XP/2003 Web, Telnet Console, SNMP				
Casing					
Aluminum	Yes	Yes	Yes	Yes	Yes
Metal	-	-	-	-	-
Plastic	-	-	-	-	-
Dimensions (W x D x H, mm)	70 x 110 x 30	70 x 110 x 30	70 x 110 x 30	100 x 125 x 30	100 x 125 x 30
Installation					
DIN-Rail Mounting	Yes	Yes	Yes	Yes	Yes
Rack Mounting	-	-	-	-	-
Panel Mounting	Yes	Yes	Yes	Yes	Yes
Wall Mounting	Yes	Yes	Yes	Yes	Yes
Power Input					
Power Redundancy	Yes	Yes	Yes	Yes	Yes
9-30VDC (Terminal Block)	-	-	-	-	-
12-32VDC (Terminal Block)	Yes	Yes	Yes	Yes	Yes
12-24VDC (Terminal Block)	-	-	-	-	-
12VDC (DC Jack)	Yes	Yes	Yes	Yes	Yes
Operating Temperature					
-10°C ~ +60°C (+14°F ~ +140°F)	-	-	-	-	-
-20°C ~ +60°C (-4°F ~ +140°F)	Yes	Yes	Yes	Yes	Yes
-40°C ~ +75°C(-40°F ~ +167°F)	-	-	-	-	-
Regulatory Approvals					
CE/FCC	Yes	Yes	Yes	Yes	Yes
VCCI	Yes	Yes	Yes	Yes	Yes
UL/cUL 60950-1	-	-	-	-	-
NEMA	-	-	-	-	-

AXIOMTEK

Headquarters

Axiomtek Co., Ltd.
8F, No.4, Lane 235, Baoqiao Road,
Xindian City, Taipei County 231,
Taiwan
Tel: +886-2-2917-4550
Fax: +886-2-2917-3200
E-mail: info@axiomtek.com.tw

America

Axiomtek
18138 Rowland Street
City of Industry, CA 91748
USA
Tel: +1-626-581-3232
Fax: +1-626-581-3552
E-mail: info@axiomtek.com

Regional Sales Offices
Northeast Region ext.187
Southeast Region ext.185
Midwest Region ext.189

Europe

Axiomtek Deutschland GmbH
Hans-Böckler-Str. 10
40764 Langenfeld
Germany
Tel: +49-2173-399360
Fax: +49-2173-3993636
E-mail: sales@axiomtek.de

Axiomtek ITALIA S.r.l.
Via Bellini, 31/33
20095 Cusano Milanino (MI)
Italy
Tel: +39-02-664299.1 r.a.
Fax: +39-02-66400279
E-mail: info@axiomtek.it

China

Axiomtek Technology Co., Ltd.
10A, JingSong Mansion
TaiRan 4 Rd of CheGongMiao
Futian District, Shenzhen 518040
P.R. China
Tel: +86-755-8348-7887
Fax: +86-755-8358-9681
E-mail: axcn@axiomtek.com.cn

Beijing Office
317, Digitalmedia Mansion
No. 7, Shangdi Xinxi Rd, Haidian
Beijing 100085
P.R. China
Tel: +86-10-6297-0207
Fax: +86-10-6297-0208
E-mail: axcn@axiomtek.com.cn

Shanghai Office
1402, No. 3, Lane 9260,
Humin Road, Xuhui District,
Shanghai 200235
P.R. China
Tel:+86-21-64081177
Fax:+86-21-64823090
E-mail: axcn@axiomtek.com.cn

Axiomtek Electronic (DongGuan) Co., Ltd.
11 Building, Fuji Industrial City,
Qinghu Industrial Park, QingXi Town,
DongGuan
P.R. China
Tel: +86-769-8201-7600
E-mail: axcn@axiomtek.com.cn

V018 94300001670E