



PRODUCT OVERVIEW

INDUSTRIAL NETWORKING & SMART CONTROL SOLUTIONS



KLG SMARTEC

Makes Industry Smarter

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At KLG Smartec (KLG), we are dedicated to advancing industrial internet, integrating AI-powered solutions with top-notch Industrial Ethernet Switches and comprehensive Smart Control Solutions. Our focus on Industrial Automation drives us to prioritize high-quality Industrial Communications, seamlessly blending them with advanced industrial networking technologies. Our expertise shines in our commitment to developing cutting-edge AI-powered Industrial Networking Solutions and efficient Smart Control systems. This dedication ensures peak performance and unwavering reliability in our Industrial Network Infrastructure, adapting to the ever-evolving landscape of industrial internet.

Our Competences



Rugged Design

Durable products, withstand harsh conditions, ideal for aerospace, defense, industrial sectors



Manufacturing Capability

Efficient production, scalable, consistent quality, quick adaptation to market demands



International Certifications

Compliant, credibility, global acceptance

Industrial Ethernet Solutions

Kyland Aquam Series



- Kyland Aquam Series are designed specifically for the rail transit industry
- Meets the strict reliability requirements of the rail transit and factory automation industries
- Suitable for any application where vibration impact and EMC compatibility are critically demanded

Model	Layer / Management	Installation	IP Class	Operation Temperature	Interface	No. of Ports	Power Supply
Aquam8012A	L2 Managed	Wall mount	IP65	-40°C ~ 75°C	Gigabit/100M	12	110V DC, 24-48V DC
Aquam8012A-1U	L2 Managed	Rackmount	IP40	-40°C ~ 75°C	Gigabit/100M	12	110V DC
Aquam8124TSN	L2 Managed	Wall mount	IP65	-40°C ~ 75°C	Gigabit/100M	24	110V DC
Aquam5/8	Unmanaged	Wall mount	IP65	-40°C ~ 75°C	100M	5/8	24V DC, 110V DC
Aquam5A/8A	Unmanaged	Wall mount	IP65	-40°C ~ 75°C	100M	5/8	24V DC, 110V DC
Aquam5E/8E	Unmanaged	Wallmount	IP65	-40°C ~ 75°C	100M	5/8	24V DC, 110V DC
Aquam5G/8G	Unmanaged	Wall mount	IP65	-40°C ~ 75°C	Gigabit	5/8	24V DC, 110V DC
Aquam5S/8S/9S	Unmanaged	Wall mount	IP65	-40°C ~ 70°C	100M	5/8/9	24 - 110V DC
Aquam8512A	L3 Managed	Wall mount	IP65	-40°C ~ 75°C	Gigabit/100M	12	110V DC, 24-48V DC
Aquam8512A-1U	L3 Managed	Rackmount	IP40	-40°C ~ 75°C	Gigabit/100M	12	110V DC
Aquam8612/8112	L2/3 Managed	Wall mount	IP65	-40°C ~ 70°C	Gigabit/100M	12	110V DC, 24-48V DC
Aquam8612-1U/ Aquam8112-1U	L2/3 Managed	Rackmount	IP40	-40°C ~ 70°C	Gigabit/100M	12	110V DC
Aquam8612-2U/ Aquam8112-2U	L2/3 Managed	Rackmount	IP40	-40°C ~ 70°C	Gigabit/100M	24	110V DC
Aquam8620/8120	L2/3 Managed	Wall mount	IP65	-40°C ~ 70°C	Gigabit/100M	28	110V DC, 24-48V DC
Aquam8628/8128	L2/3 Managed	Wall mount	IP65	-40°C ~ 70°C	Gigabit/100M	28	110V DC, 24-48V DC

Kyland Opal Series



- Unmanaged Ethernet rail-type switches
- Applicable to power, intelligent transportation, factory automation, video surveillance, and other fields
- Ensures fast and stable data transmission in harsh industrial environments

Model	Layer / Management	Installation	IP Class	Operation Temperature	Interface	No. of Ports	Power Supply
Opal5	Unmanaged	DIN Rail	IP40	-40°C ~ 75°C	Full 100M	5	12-48V DC
OPAL5A/8A	Unmanaged	DIN Rail	IP30	-40°C ~ 75°C	100M	5/8	12-48V DC
OPAL5E/8E	Unmanaged	DIN Rail	IP30	-40°C ~ 75°C	100M	5/8	12-48V DC
Opal5G	Unmanaged	DIN Rail	IP30	-40°C ~ 75°C	Gigabit	5	12-48V DC
Opal5GL	Unmanaged	DIN Rail	IP40	-40°C ~ 75°C	Gigabit	5	12-48V DC
Opal5GS	Unmanaged	DIN Rail	IP30	-40°C ~ 75°C	Gigabit	5	12-48V DC
Opal5L	Unmanaged	DIN Rail	IP40	-40°C ~ 75°C	Full 100M	5	12-48V DC
Opal8	Unmanaged	DIN Rail	IP30	-40°C ~ 75°C	Full 100M	8	12-48V DC
Opal8A	Unmanaged	DIN Rail	IP30	-40°C ~ 75°C	Full 100M	8	12-48V DC
Opal8GL	Unmanaged	DIN Rail	IP30	-40°C ~ 75°C	Gigabit	8	12-48V DC
Opal8L	Unmanaged	DIN Rail	IP30	-40°C ~ 75°C	Full 100M	8	12-48V DC
Opal10A	Unmanaged	DIN Rail	IP30	-40°C ~ 75°C	100M	10	12-48V DC
Opal10G	Unmanaged	DIN Rail	IP30	-40°C ~ 75°C	Gigabit	10	12-48V DC
Opal10GL	Unmanaged	DIN Rail	IP40	-40°C ~ 75°C	Gigabit	10	12-48V DC
Opal10GS	Unmanaged	DIN Rail	IP30	-40°C ~ 75°C	Gigabit	10	12-48V DC
Opal20	Unmanaged	DIN Rail	IP30	-40°C ~ 75°C	Full 100M	20	12-48V DC

Kyland SICOM Series



- Including Din-rail Managed Industrial Ethernet Switches, Rack-mounted Managed Ethernet Switches, Power over Ethernet (PoE) Switches and Layer 3 Managed Rack-mounted Backbone Switches
- Widely used in factory automation, transportation, petrochemicals, wind power, and other fields

Model	Layer / Management	Installation	IP Class	Operation Temperature	Interface	No. of Ports	Power Supply
SICOM2024M	L2 Managed	Rackmount	IP40	-40°C ~ 85°C	Gigabit/100M	28	220V AC, 24-48V DC
SICOM3000A	L2 Managed	DIN Rail	IP40	-40°C ~ 75°C	Gigabit/100M	20	220V AC, 24-48V DC
SICOM3000A-LITE	L2 Managed	DIN Rail	IP40	-40°C ~ 75°C	100M	10	12-24VDC, 24-48V DC
SICOM3000L	L2 Managed	DIN Rail	IP40	-40°C ~ 75°C	Gigabit	20	48V DC
SICOM3000S	L2 Managed	DIN Rail	IP40	-40°C ~ 75°C	Gigabit	12	220V AC, 12-24VDC, 24-48V DC
SICOM3024G	L2 Managed	Rackmount	IP40	-20°C ~ 60°C	Full Gigabit	24	220V AC
SICOM3024GS	L3 Managed	Rackmount	IP40	-40°C ~ 75°C	Gigabit	28	220V AC
SICOM3024P	L2 Managed	Rackmount	IP40	-40°C ~ 85°C	Gigabit/100M	28	220V AC, 24-48V DC
SICOM3028GPT	L2/3 Managed	Rackmount	IP40	-40°C ~ 85°C	Gigabit/100M	28	220V AC, 24 VDC, 48 V DC

Model	Layer / Management	Installation	IP Class	Operation Temperature	Interface	No. of Ports	Power Supply
SICOM3028GPT-L2	L2 Managed	Rackmount	IP40	-40°C ~ 85°C	Gigabit/100M	28	220V AC, 24 V DC, 48 V DC
SICOM3028GPT-L3	L3 Managed	Rackmount	IP40	-40°C ~ 85°C	Gigabit/100M	28	220V AC, 24 V DC, 48 V DC
SICOM3416G	L2 Managed	DIN Rail	IP40	-40°C ~ 75°C	10G/Gigabit	20	220V AC, 24-48V DC
SICOM3432G	L2 Managed	Rackmount	IP40	-40°C ~ 75°C	10G/Gigabit	36	220V AC, 24-48V DC
SICOM6416G	L3 Managed	DIN Rail	IP40	-40°C ~ 75°C	10G/Gigabit	20	220V AC, 24-48V DC
SICOM6432G	L3 Managed	Rackmount	IP40	-40°C ~ 75°C	10G/Gigabit	36	220V AC, 24-48V DC
SICOM6800	L3 Managed	Rackmount	IP40	-40°C ~ 75°C	Gigabit	28	220V AC, 24-48V DC
SICOM6800-2U	L3 Managed	Rackmount	IP40	-40°C ~ 75°C	10G/Gigabit	56	220V AC, 24-48V DC
SICOM6800-D	L3 Managed	DIN Rail	IP40	-40°C ~ 85°C	Gigabit	12	220V AC, 24-48V DC

Kyland KOM Series



- Including Din-rail Fiber Optic Transceivers and Din-rail Serial Fiber Optic Transceivers
- Widely used in power, transportation, petrochemical, and other fields

Model	Layer / Management	Installation	IP Class	Operation Temperature	Interface	No. of Ports	Power Supply
KOM200	Unmanaged	DIN Rail	IP30	-40°C ~ 85°C	Full 100M	3	220V AC, 12-24V DC
KOM300A	Unmanaged	DIN Rail	IP40	-40°C ~ 85°C	Full 100M	3	12-48V DC
KOM300F	Unmanaged	DIN Rail	IP40	-40°C ~ 75°C	Full 100M	3	220V AC, 12-48V DC
KOM600G	Unmanaged	DIN Rail	IP40	-40°C ~ 75°C	Gigabit	2	12-48V DC


Kyland Ruby 3A

- Supports combo ports as HSR/PRP port
- Supports hardware based IEEE1588v2
- Supports reset button for system reboot
- Out of Band Management Port
- Complies with IEC61850-3 and IEEE1613
- Compliant implementation of both PRP (IEC62439-3-4) and HSR (IEC62439-3-5)



Model	Layer / Management	Installation	IP Class	Operation Temperature	Interface	No. of Ports	Power Supply
Ruby 3A	L2 Managed	DIN Rail	IP40	-40°C ~ 85°C	Full Gigabit	3	220V AC, 24-48 V DC

Kyland Accessories

Model	Interface	Dimension	Weight	Operating Temperature	Product Image
DT-XL-Mini USB-USB-2m	USB	2 m	25g	-40°C ~ 85°C	
KyACB-USB-M12	M12-A-Code 4 Pin-Male Connector	300 mm	35g	-10°C ~ 60°C	
KyACB-USB-RJ45	RJ45 Connector	300 mm	25g	-10°C ~ 60°C	
M12-A-4P-F	Type A- Coding, 4 Pin, Female	6 - 8 mm	NA	-40°C ~ 85°C	
M12-A-4P-M	Type A- Coding, 4 Pin, Male	6 - 8 mm	NA	-40°C ~ 85°C	
M12-D-4P-M	Type D- Coding, 4 Pin, Male	6 - 8 mm	NA	-40°C ~ 85°C	
M12-X-8P-M	Type X- Coding, 8 Pin, Male	5.5 - 9 mm	NA	-40°C ~ 85°C	
SFP-1FX	LC Connector	113.7 × 12.7 × 56.6 mm (W×H×D)	40g	-40°C ~ 85°C	
SFP-1G	LC Connector	13.9 × 12.6 × 58.4 mm (W×H×D)	40g	-40°C ~ 85°C	
SFP-1G to RJ45	RJ45 Connector	13.61 × 13.9 × 67.96 mm (W×H×D)	40g	-40°C ~ 85°C	
SFP-10G	LC Connector	13.9 × 12.6 × 58.4 mm (W×H×D)	40g	-40°C ~ 85°C	

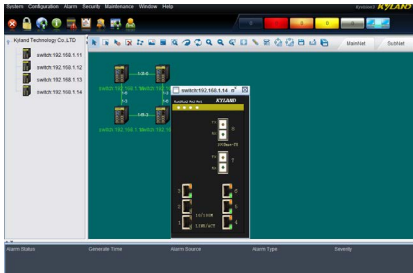


Industrial Ethernet Solution Product Details:
www.kgsmartec.com/products/industrial-ethernet-solutions

Kyvision

Network Management Software

Kyvision is high performance network management software designed by Kyland, supports all types of Kyland network managed devices(Support SNMP). Its management functions include device management, alarm management, right management, topology management, maintenance management...etc.



- New generation network management system, based on B/S architecture
- Supports 10 users simultaneously online and can monitor up to 1000 devices
- Supports SNMP v1/v2c/v3
- Auto-detection of devices, and real-time event alerts to user
- Real-time access to device status, providing graphical interface display
- Provides Socket and OPC interfaces for user secondary development

System Requirement

Software OS, Windows XP/Windows 7/Windows 10/Windows 2003 Server/Windows 2000 Server, Linux

Hardware Configuration: Windows Server Windows Client Harddisk: 40GB 20GB
 CPU: Pentium 4 Pentium 4 CD-ROM: 48x 48x
 CPU Frequency: 3GHZ 3GHZ Network Card: 100M 100M
 Memory: 1GB 512MB Display: >=1024*768 >=1024*768



Kyvision Software Details:
www.klgsmartec.com/product/kyvision

Industrial Serial Solutions

Kyland DGW / KPS / KGW Series



- Including Serial Servers and Reliable Industrial-grade Smart Gateways
- Ensures the security and stability of industrial networks
- Reliable industrial-grade design with excellent user experience

Model	Installation	Interface	No. of Serial Ports
DGW-A2/A4	DIN Rail	100M/Serial	2/4
DGW-A8/A16	Rackmount	100M/Serial	8/16
KGW3608A	DIN Rail	Full 100M/Serial	8
KPS3101 / KPS3102 / KPS3204	DIN Rail	Full 100M/Serial	1/2/4
KPS3101A / KPS3102A / KPS3204A / KPS3208A	DIN Rail	Full 100M/Serial	1/2/4/8
KPS3224A	DIN Rail / Wall Mount	Full 100M/Serial	24
KGW3102A / KGW3204A / KGW3208A	DIN Rail / Wall Mount	Full 100M/Serial	2/4/8
KGW3204A-4G	DIN Rail / Wall Mount	Full 100M/Serial	4
KGW3224A	Rackmount	Full 100M/Serial	24



Industrial Serial Solution Product Details:
www.kgsmartec.com/products/industrial-serial-solutions

Industrial Time Solutions

Kyland PTS Series



- Including Din-rail Multifunctional Time Converter, Rack-mounted High-precision Time Servers and Rack-mounted Time Distributors
- Meets the time synchronization needs of different industries

Model	Installation	Interface	No. of Ports
PTS-10A / PTS-30	Rackmount	Gigabit/100M	4
PTS-10AL	Rackmount	Gigabit/100M	5
PTS-DR200	DIN Rail	Gigabit	2
PTS-DR200L	DIN Rail	Gigabit/100M	5
PTC2000	DIN Rail	Gigabit	2



Industrial Time Solution Product Details:
www.klgsmartec.com/products/industrial-timing-solutions

Smart Control Solutions

Kyland NewPre Series



NewPre Series, next generation industrial server, is an all in one platform with edge computing, process control, motion control and machine vision. NewPre is pre-installed with Kyland Intewell OS which supports 20+ software defined real-time systems and desktop system by virtualization, Maview drag-and-drop graphical programming development suite, and edge connectivity applications.

NewPre is specially designed for harsh environments with wide operating temperature with high performance and compact size suitable for industrial applications.

Model	Network Interface	CPU	Display Port	Expansion	Memory	Serial Port	USB
NewPre200	RJ45 X 2, WiFi, 4G/5G	Intel Celeron, Fanless Design	DP, DVI	mini PCIe slot	8GB	RS232, RS485	USB3
NewPre300	RJ45 X 2, WiFi, 4G/5G	Intel i3, Intel i5, Intel i7, Intel Celeron, Fanless Design	DVI, HDMI	mini PCIe slot	16GB	RS232, RS485	USB2, USB3
NewPre2100	RJ45 X 6, WiFi, 4G/5G	ARM, Fanless Design	NA	NA	2GB	CAN, RS232, RS485	USB3
NewPre2300	RJ45x2, WiFi, 4G/5G	ARM Fanless Design	HDMI	NA	4GB	RS232, RS485	USB2, USB3
NewPre3101 / NewPre3202	RJ45 X 4, WiFi, 4G/5G	Intel i7, Fanless Design	DP, HDMI, VGA	M.2 slot, mini PCIe slot	32GB, 64GB	CAN, RS232, RS485	USB3
NewPre3200	RJ45 X 4	Intel i5, Intel i7, Fanless Design	HDMI	I/O Module	16GB	RS232, RS485	USB2, USB3
NewPre5100	RJ45x4, WiFi, 4G/5G	Loongson	HDMI	I/O Module	4GB	RS232, RS485, CAN	USB2

Kyland KYIO-L Series



Remote IO system consists of network adapter module and extended IO module. The network adapter module controls fieldbus communication and it realizes communication link with host station controller or host computer software.

- Compact & Mighty Design
- Supports DT-Ring, DRP/DHP, STP/RSTP/MSTP
- Supports Layer 3 Static routing and routing protocols

Module	Model
Coupler Module	LC-1101, LC-1201, LC-1301, LC-1401, LC-2101, LC-3101
DI Module	LD-1016, LD-1308, LD-3016, LD-3108, LD-5032
DO Module	LD-2008, LD-2016, LD-2032, LD-2104, LD-2116, LD-4016, LD-4032
DO Module	LD-2008, LD-2016, LD-2032, LD-2104, LD-2116, LD-4016, LD-4032
AI Module	LA-1004, LA-1008, LA-1108, LA-3008
AO Module	LA-2004, LA-4004, LA-4008
RTD Module	LA-7003, LA-7004
TC Module	LA-9004, LA-9008
Position Measurement Module	LP-1002, LP-3002, LP-5002, LP-7002
Mixed Digital Input/Output Module	LD-0008
Communication Submodule	KYIO-LS-1111, KYIO-LS-1211

Kyland KYAC Product



The KYAC series is a high-performance, book-style industrial computer designed for applications in the automation and machine vision industries. It features a robust aluminum alloy chassis structure, ensuring excellent durability.

- Equipped with Intel Core i3/i5/i7 series processors BIOS core and system optimization to meet real-time control requirements
- EtherCAT support for up to 128 slave devices System task jitter within 25 microseconds
- Compliant with IEC61131-3 standards and PLCopen specifications
- Supports mainstream industrial protocols such as EtherCAT, EtherNet/IP, OPC UA, and ModbusTCP
- Integrated single serial port with flexible switching between RS232 and RS485
- Redundant dual power ports designed to ensure stable power supply
- Supports a wide temperature operating environment from -20°C to 60°C

Model	Network Interface	CPU	Display Port	Expansion	Memory	Serial Port	USB
KYAC311	RJ45 X 4, 4G/5G	Intel i3, Intel i5, Intel i7	HDMI	mini PCIe slot	8GB, 16GB, 32GB	RS232, RS485	USB2, USB3
KYAC323	RJ45 X 4, 4G/5G	Intel i3, Intel i5, Intel i7	HDMI	mini PCIe slot	8GB, 16GB, 32GB	RS232, RS485	USB2, USB3



Smart Control Solution Product Details:
www.kgsmartec.com/products/smart-control-solutions

Kyland Hyperie8300



Hyperie8300 is a power automation platform, equipped with various data interfaces, built-in hundreds of protocols, integrated soft-PLC control functions and SCADA/HMI functionality, pre-installed Intewell Hypervisor for real-time virtualization, open platform for customized APPs, making it an ideal solution for automation system of transmission/distribution substation, distributed PV power generation, wind power, thermal energy storage, etc.

- IT/OT Convergence**
 Capable of supporting SCADA system, Protocol gateway, IEC61131-3 softPLC and other legacy (Window/Linux) x86 applications on a single platform
- SoftPLC based on IEC61131-3 standard**
 Real-time control period within 50µs
- Intelligent Protocol Gateway**
 Abundant Power protocol includes IEC61850, IEC60870 protocol suite, DNP3.0, Modbus etc.
- High-availability and Fault Tolerance**
 Integrated IEC62439-3 PRP/HSR modular and application redundancy for protocol gateway, SCADA system and IEC61131-3 softPLC
- Easy Maintenance**
 The entire state of the virtual machine can be saved to files. Additionally, the VM can be moved and copied as easily as moving and copying files
- Comply with IEC61850-3, IEEE1613 hardware design**

Model	Network Interface	CPU	Display Port	Memory	Serial Port	USB
Hyperie8300	RJ45 X 6, SFP X 2	Intel Pentium, Intel i3, Intel i5, Intel i7, Intel Celeron	VGA, HDMI	8GB/ Max 64GB	RS232, RS485	USB2, USB3



Hyperie8300 Product Details:
www.kgsmartec.com/product/hyperie8300

Winux-RT Operating System

INDUSTRIAL AUTOMATION SOFTWARE

Winux-RT is developed by Kedong (Guangzhou) Software Technology Ltd. (a wholly owned subsidiary of Kyland) for Industrial Applications. It is a micro-kernel based Operating System with modular design, so it can be easily customized for different applications. Winux-RT abstracts physical hardware and I/O interfaces so it can virtualize the machine (through the hypervisor). The hypervisor manages and allocates the system's resources, so that it can enable the system to host several instances simultaneously but still assure each instance and application real-time, secure, deterministic and reliable.

Winux-RT has been developed and evolved for more than 20 years and holds 60+ patents and 30+ copyrights. It is widely deployed to numerous mission critical industry sectors like smart manufacturing, railway, energy, robotics,...etc., and it's been proven reliable and secure in the long and sustaining applications.

Key features

- Reliable: more than 20 years track record of operation
- Real-time: micro-second level response time
- Micro-kernel: virtualizes hardware resources and enables software-defined management
- Hybrid: enables one-machine with multiple real-time and non-real-time instances hybrid operation, so it can integrate edge computing, motion control, data acquisition, AI,...etc. in one machine



Winux-RT Operating System Details:
www.klgsmartec.com/product/winux-rt-operating-system

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