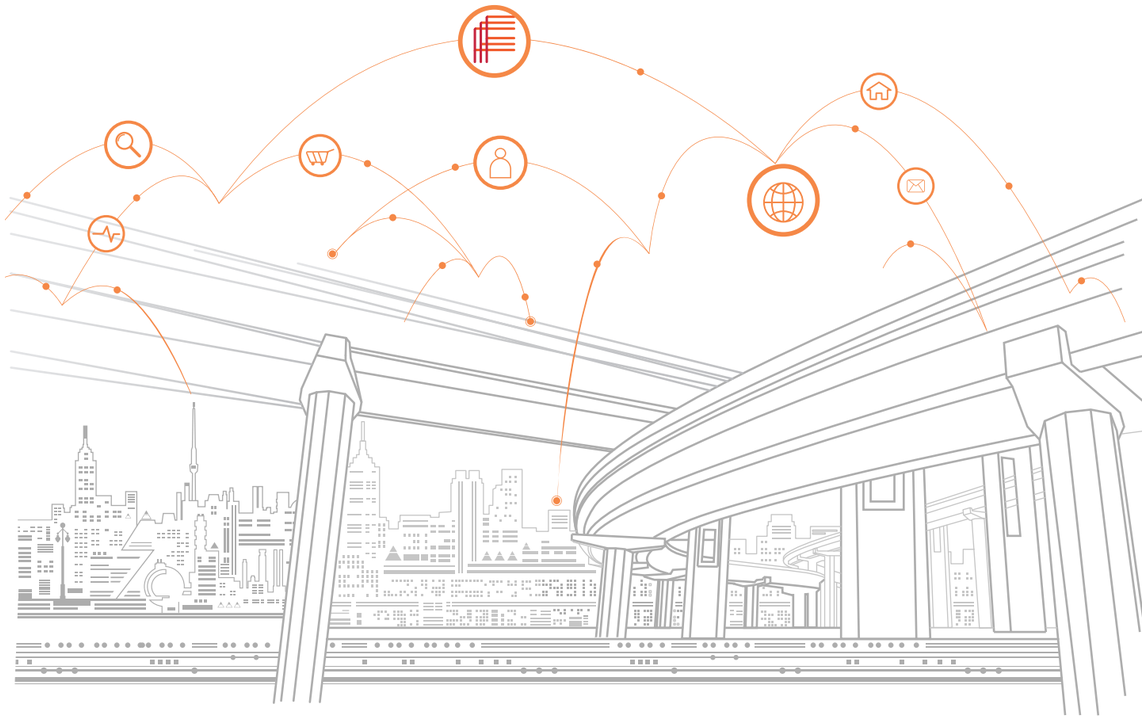
FIBERROAD

Product Brochure

Fiber Access & Industrial Ethernet



IIoT The Future

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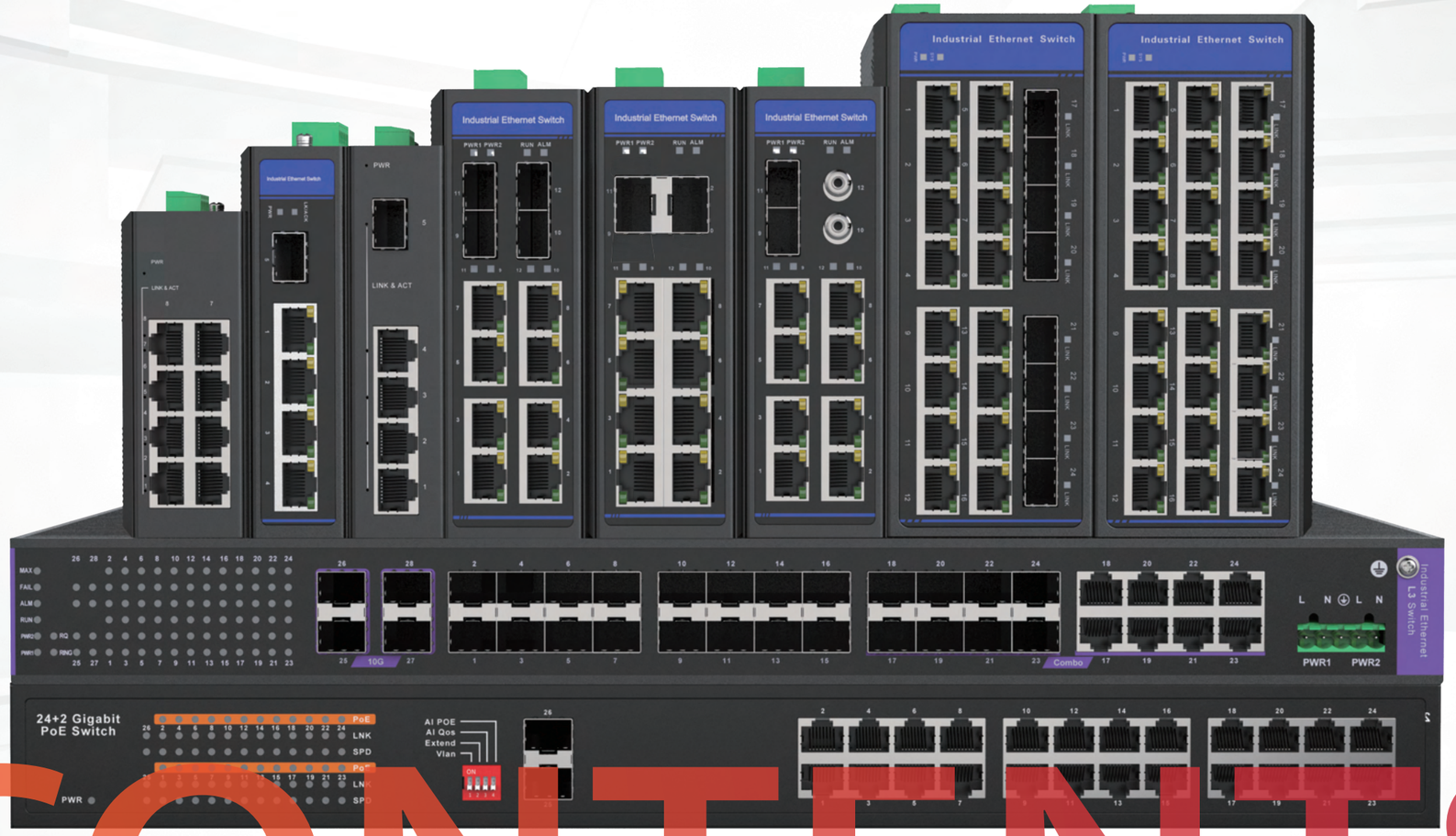

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ABOUT US

Sales

R&D

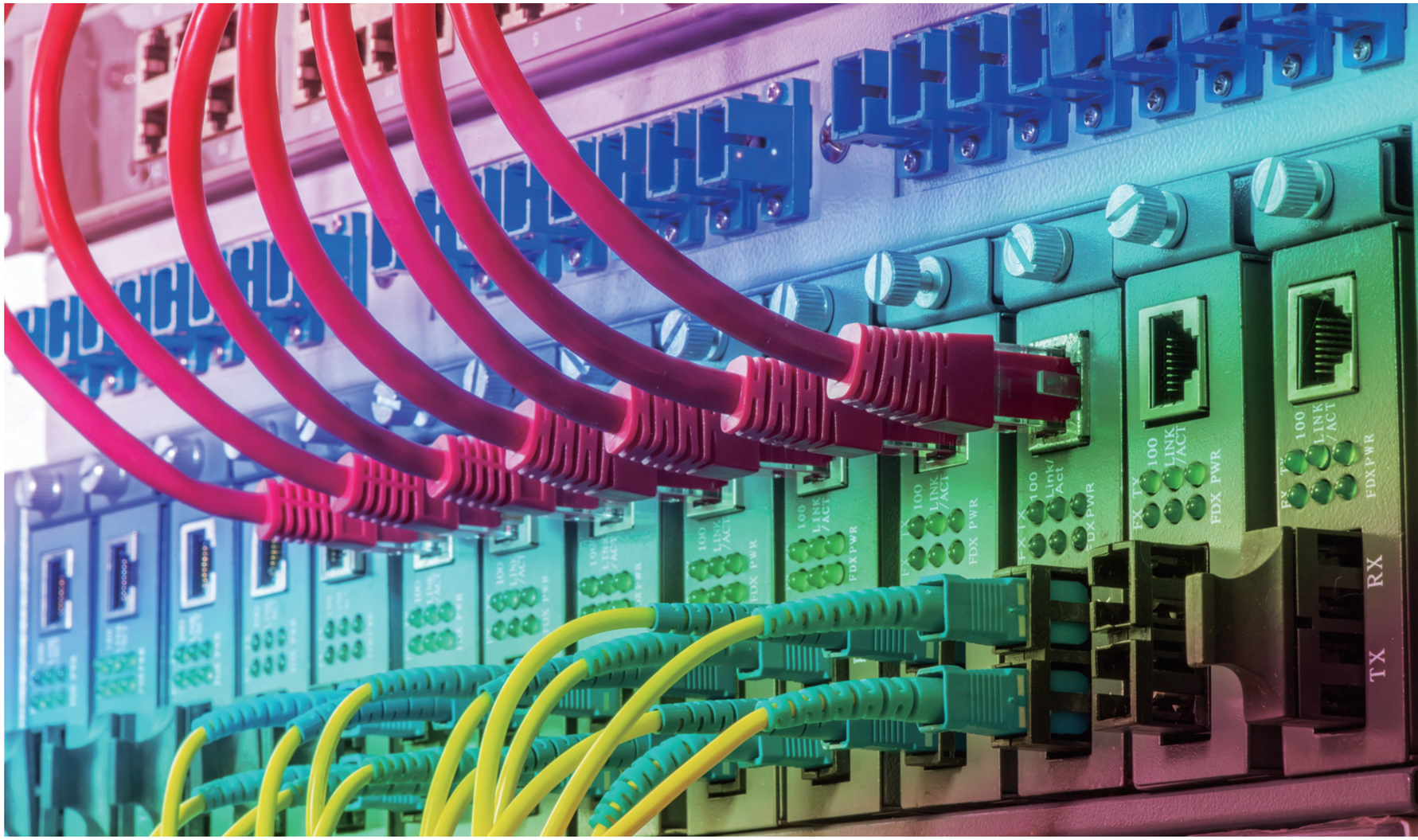
Production

Services

Fiberroad Technology Co., Ltd. is a professional provider of data communication equipment and solution, providing the design, research and development, production, sales, technical support and other services of communication products including optical fiber transceivers, industrial Ethernet switches, embedded industrial Ethernet modules, and wavelength division multiplexing equipment, etc.

Fiberroad products are widely used in smart city construction, intelligent rail transit, industrial automation, utility tunnel, water conservancy and photovoltaic and other fields. They are specially designed for the special requirements of harsh industrial environments. They have completely independent intellectual property rights and R&D, and have related technology patents and software copyright, guarantee the normal work in the extremely harsh climate environment, fully meet the needs of the industrial field, and provide reliable communication interconnection for the industrial control system.

Fiberroad is committed to providing highly reliable industrial communication products and solutions to global customers. In the application of industrial communication network, it has accumulated a lot of successful experience and industry technology, which can provide stable and complete industrial communication solutions. FiberRoad has developed into a leading brand in the field of domestic industrial communications, and is the most innovative industrial communications manufacturer in China.



COPRORATE CULTURE

Trust
Building customers' trust and confidence in the company is simply because of trust.

Struggle
Persist in struggle, persist in self-reflection, optimise and improve.

Innovation
Dare to pay for reforms, dare to face challenges and risks, and insist on innovation in the main channel of the business with passion.

Win-Win
Take the customer as the core, continue to create maximum value for customers, realise their importance in the process to achieve mutual benefit.

CORPORATE HISTORY

2020-2021
Launched cloud integrated management platform.
Launched 100-400G high density transmission solution.

2018-2019
Launched 48-port core management switch.
100G high-speed transmission solution.

2017-2019
Launched L3 managed industrial-grade switches.

2015-2016
Obtained ISO9001 quality management certification.
Obtained The National High-tech Enterprise.
Launched High-Integrated Optical Transport Network System.
Introduced L2 management industrial-grade switches.

2013-2014
Launched Modularized WDM System.
Launched 40G Fiber Converter.
Launched POE switch.

2011-2012
Launched Industry-leading 10G Fiber to Ethernet Converter. Entering the application of 10G access.

2008-2011
Launched Carrier Grade Multi-services Fiber Access Platform.

2008
Fiberroad Technology was established.

QUALIFICATION CERTIFICATE

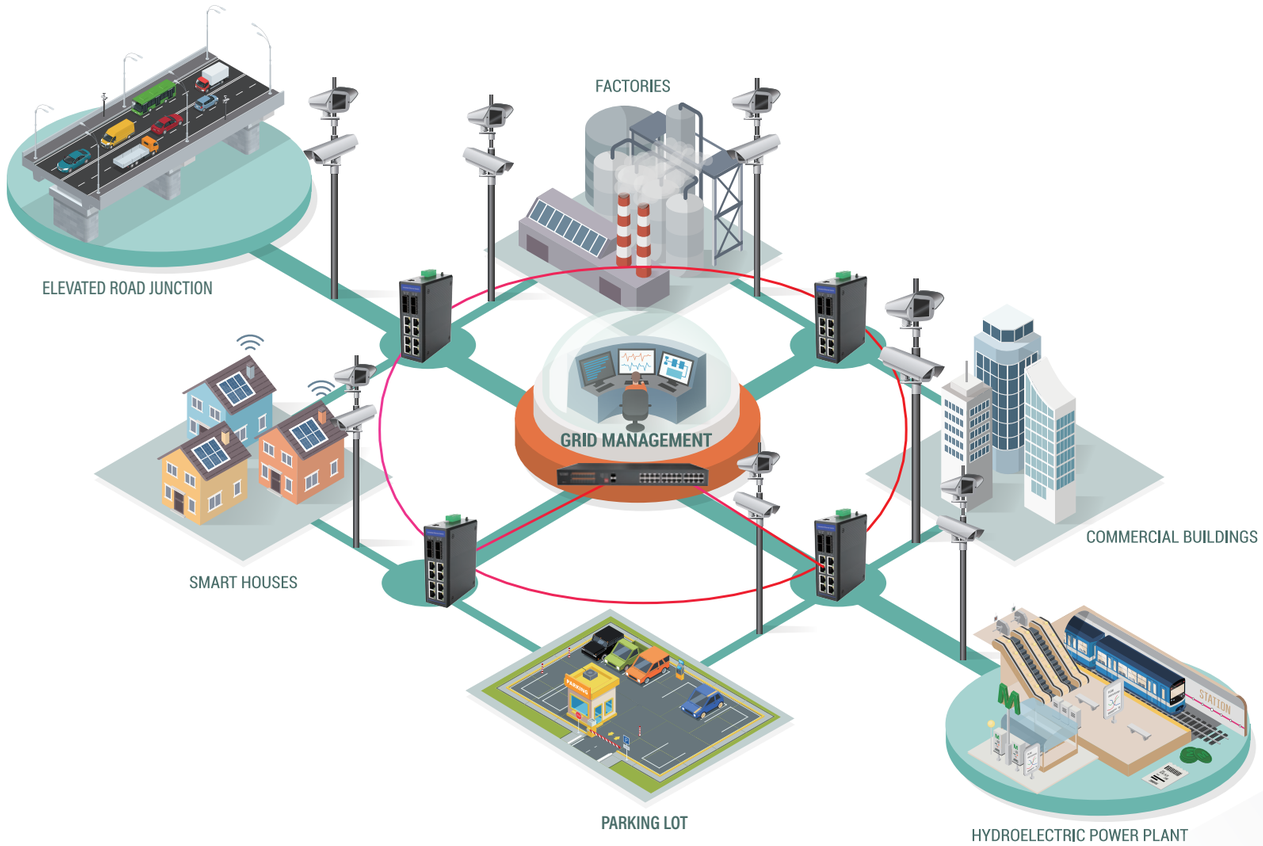
It takes ten years to grow trees but a hundred years to build a business. Based on excellent and stable product performance, high-strength environmental adaptability, competitive price support, high-quality docking service and purpose, Fiberroad continues to forge ahead and create an optical communications equipment provider based in China, facing the world, first-class in the industry, and recognized by customer satisfaction. The company's products have passed CCC, ISO9001 certification, network access license, CTTL laboratory test report, Ministry of Public Security test report, salt test report, CE, FCC certification, and obtained more than 20 patent certificates.

Smart City

With the rapid development of the national economy, local governments and the general public have continuously increased their demand for stability and public safety. Among them, the safe city, which is based on the social security monitoring system, uses computer and network communication technology to achieve effective monitoring of the city's public security status, and plays an important role in urban public security management.

Features

- Industrial-grade design, protection against shock, vibration and extreme working environment
- Gigabit high bandwidth, large cache, to ensure smooth video
- Support VLAN, IGMP Snooping, flow control and other network management functions
- Network management security, support 802.1x authentication, prevent unauthorized access
- Unify network management for the entire network equipment, receive alarms in time, and quickly locate faults



Recommend Product

FR-7N3208

Industrial Ethernet Switch
8x10/100/1000Base-TX to 2x1000Base-FX

FR-7N3101

Industrial Media Converter
1x10/100/1000Base-TX to 1x1000Base-FX

FR-7M3208P

Managed Industrial Ethernet Switch With PoE
8x10/100/1000Base-TX to 2x1000Base-FX
with 8 Port PoE

FR-6000

Centralized Managed Media Converter
2U 16Slot Rack, Dual Power Supply

FR-5M3424

Managed Ethernet Switch
24x10/100/1000Base-TX to 4x1000Base-FX/TP Combo

FR-6N1104

Industrial Ethernet Switch
4x10/100Base-TX to 1x100Base-FX

Modern Manufacturing

Intelligent factory solutions, industry automation is a core element that constitutes industrial 4.0. In the smart plant, not only the monomer equipment is intelligent, but also require all facilities in the factory, equipment and resources to interconnect interconnection to meet the requirements of intelligent production and intelligent logistics. Industrial 4.0 is a smart upgrade using the CPS system to make it possible to analyze, judgment, self-adjustment, automatic driving production, and constitute a smart plant with self-disciplined distribution system (ADS), reduce labor costs. , Ultimately realize the large-scale, low cost custom production of manufacturing.

Features

- Support -40 ~ 85 ° C wide temperature, high EMC protection level.
- Use ERPS ring network protection, with network failure self-healing.
- Network real-time monitoring, enabling QoS technology to ensure important business.
- Network security, support 802.1x authentication, block unauthorized access.
- Integrated RS485 / 232/422 three-in-one string to meet industrial application scenarios.

Recommend Product

FR-7N3208

Industrial Ethernet Switch
8x10/100/1000Base-TX to 2x1000Base-FX

FR-7M3208

Industrial Ethernet Switch
8x10/100/1000Base-TX to 2x1000Base-FX

FR-6N1008

Industrial Ethernet Switch
8x10/100Base-Tx

FR-7M3208P

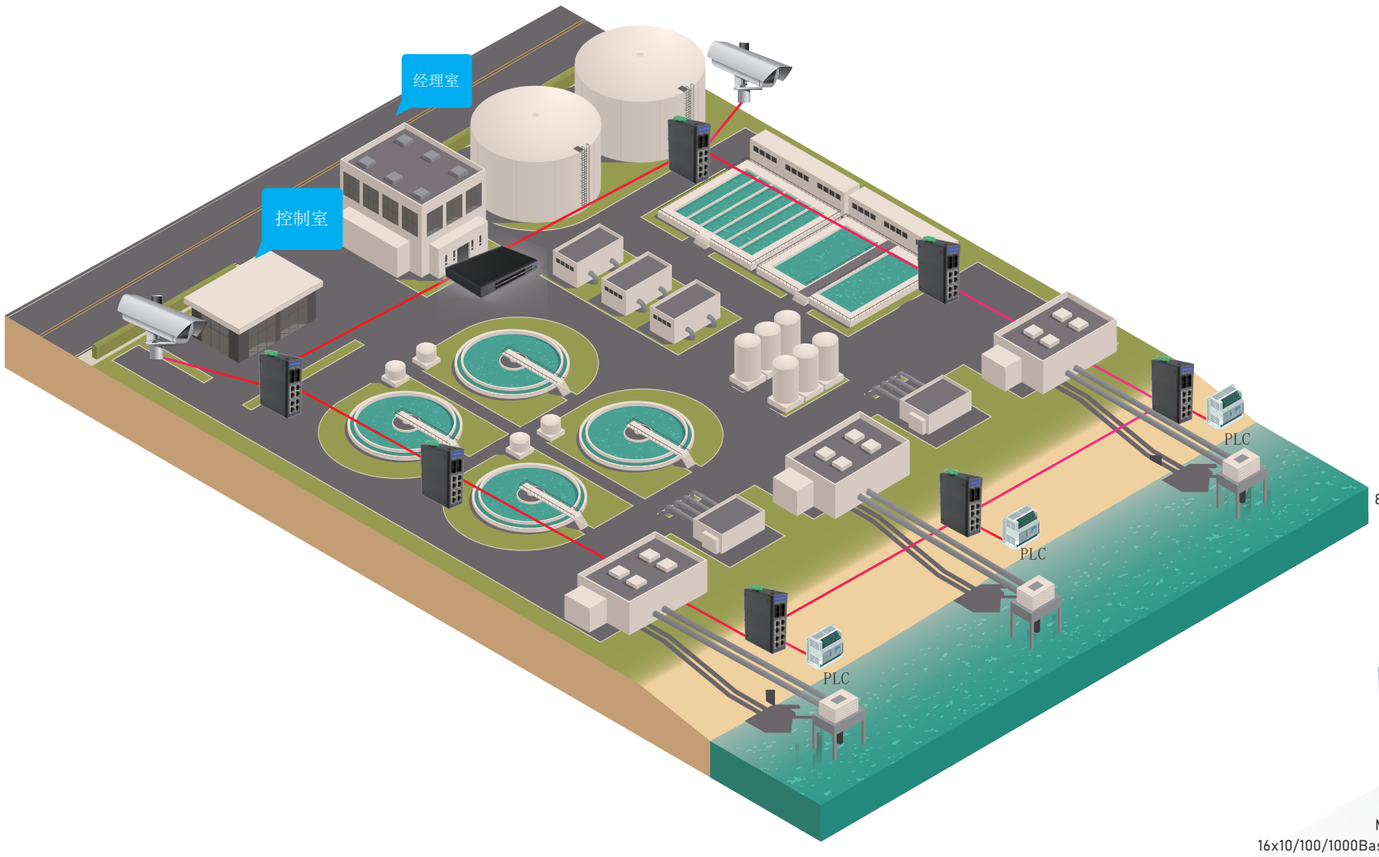
Smart Industrial Ehernet Switch
8x10/100/1000Base-TX to 2x1000Base-FX

FR-7M3416

Smart Industrial Ehernet Switch
16x10/100/1000Base-TX to 4x1000Base-FX

FR-7M3408S

Smart Industrial Ehernet Switch
8x10/100/1000Base-TX +2xSerial Port to 2x1000Base-FX



City Sewage Monitoring

Water plant automation has been greatly developed since the 1980s, and the automation of water supply can improve production, high quality, low consumption and efficient water supply, and achieve good economic benefits and social role. The water supply automation control system consists of the upper software platform and the lower water supply control unit. Through the comprehensive application of various communication networks, the software platform is implemented in the jurisdiction of the company's jurisdiction (water pump station, water source well, tap water plant, pressurized pumping station, water supply Pipe network, etc.) Incorporate all-round monitoring and management, realizing the remote monitoring of the water supply unit remote monitoring the real-time production data and equipment operating parameters of each water supply unit, remote management pump, valve and other water supply equipment.

Features

- Optical bypass protection, automatically bypass the fault node, to ensure the high reliability of network, to protect the network failure, with network failures
- High-performance network management, support CLI/WebGUI/SNMP/Telnet/SSH/Modbus TCP/IP
- QoS (IEEE 802.1p/1Q and TOS/DiffServ) to increase determinism
- Port Trunking for optimum bandwidth utilization

Recommend Product

FR-7S3208

Smart Industrial Ehernet Switch
8x10/100/1000Base-TX to 2x1000Base-FX

FR-7N3208

Industrial Ehernet Switch
8x10/100/1000Base-TX to 2x1000Base-FX

FR-6N1008

Industrial Ehernet Switch
8x10/100Base-TX

FR-9M348F

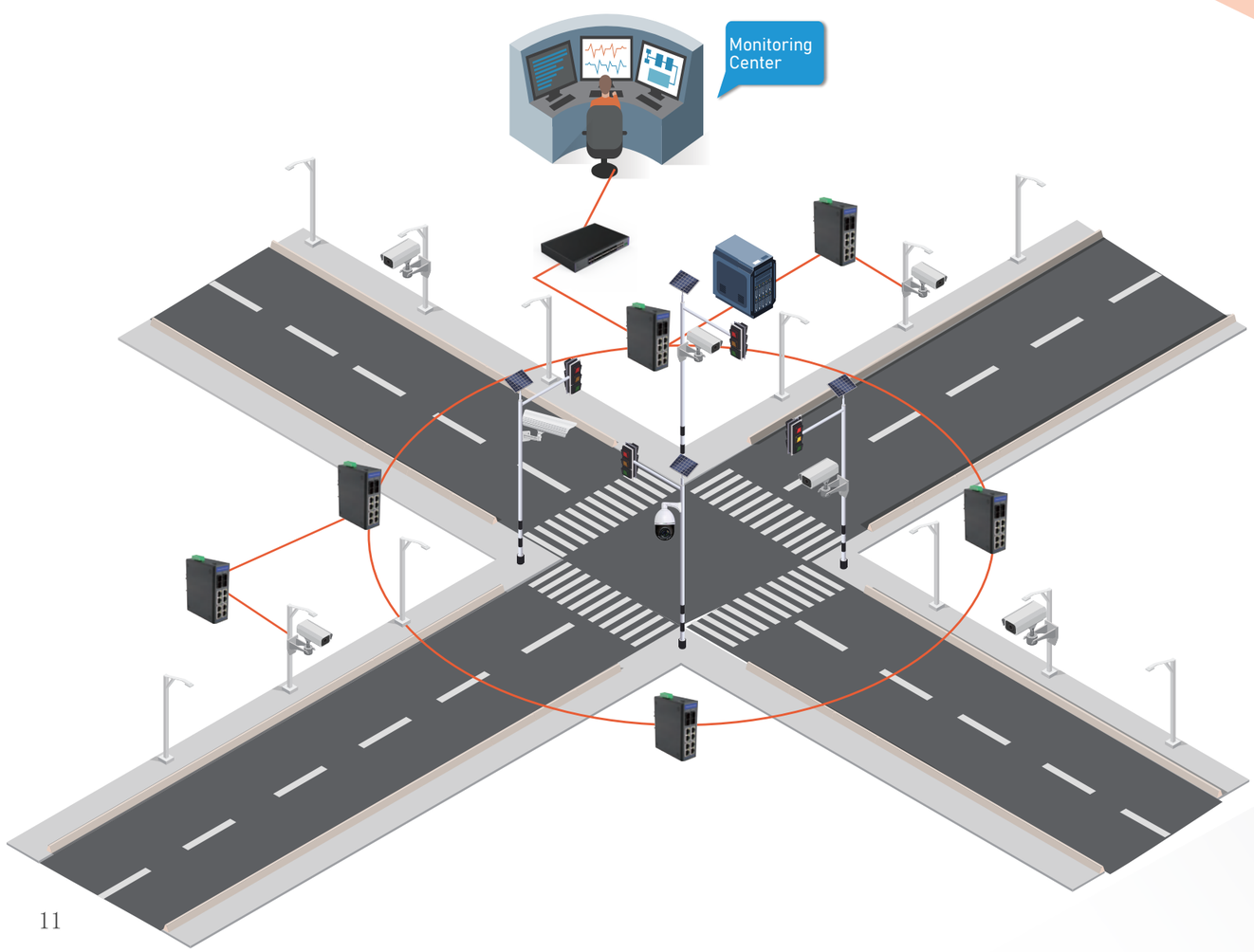
Managed Industrial Ehernet Switch
16x10/100/1000Base-TX + 8x1000Base-FX to 4xUplink Combo Gigabit+

FR-7M3416

Smart Industrial Ehernet Switch
16x10/100/1000Base-TX to 4x1000Base-FX

FR-7M3408S

Smart Industrial Ehernet Switch
8x10/100/1000Base-TX +2xSerial Port to 2x1000Base-FX



Intelligent Transportation

The intelligent traffic overall frame mainly includes four levels of application layers, platform layers, network layers, and perceptual layers, where the physical perceived layer is mainly acquired to traffic conditions and traffic data; the network layer transmits all information collected by the perceived layer to the platform layer. The platform layer is integrated and converted to support the information of each perceived terminal to support the analysis and early warning and optimization management construction of the application layer system; the application layer mainly includes traffic planning, traffic monitoring, intelligent induction, intelligent parking and other analytical warning optimization management functions .

Features

- IP40 protection level; dual power redundancy design.
- Port-based VLAN, IEEE 802.1Q VLAN, and GVRP to ease network planning.
- Support alarm information output, implement reliable data transfer and fault alarm.
- Network security, support 802.1x authentication, block unauthorized access.
- Integrated serial port equipment access to reduce network nodes.
- Access to all network equipment, timely reception alarm, fast fault location.

Recommend Product

FR-7S32088

Smart Industrial Ehernet Switch
8x10/100/1000Base-TX to 2x1000Base-FX

FR-7M3408F

Smart Industrial Ehernet Switch
8x10/100/1000Base-TX to 2x1000Base-FX
+ Bypass Protection

FR-7M3408S

Smart Industrial Ehernet Switch
8x10/100/1000Base-TX +2xSerial Port to 2x1000Base-FX

FR-9M348F

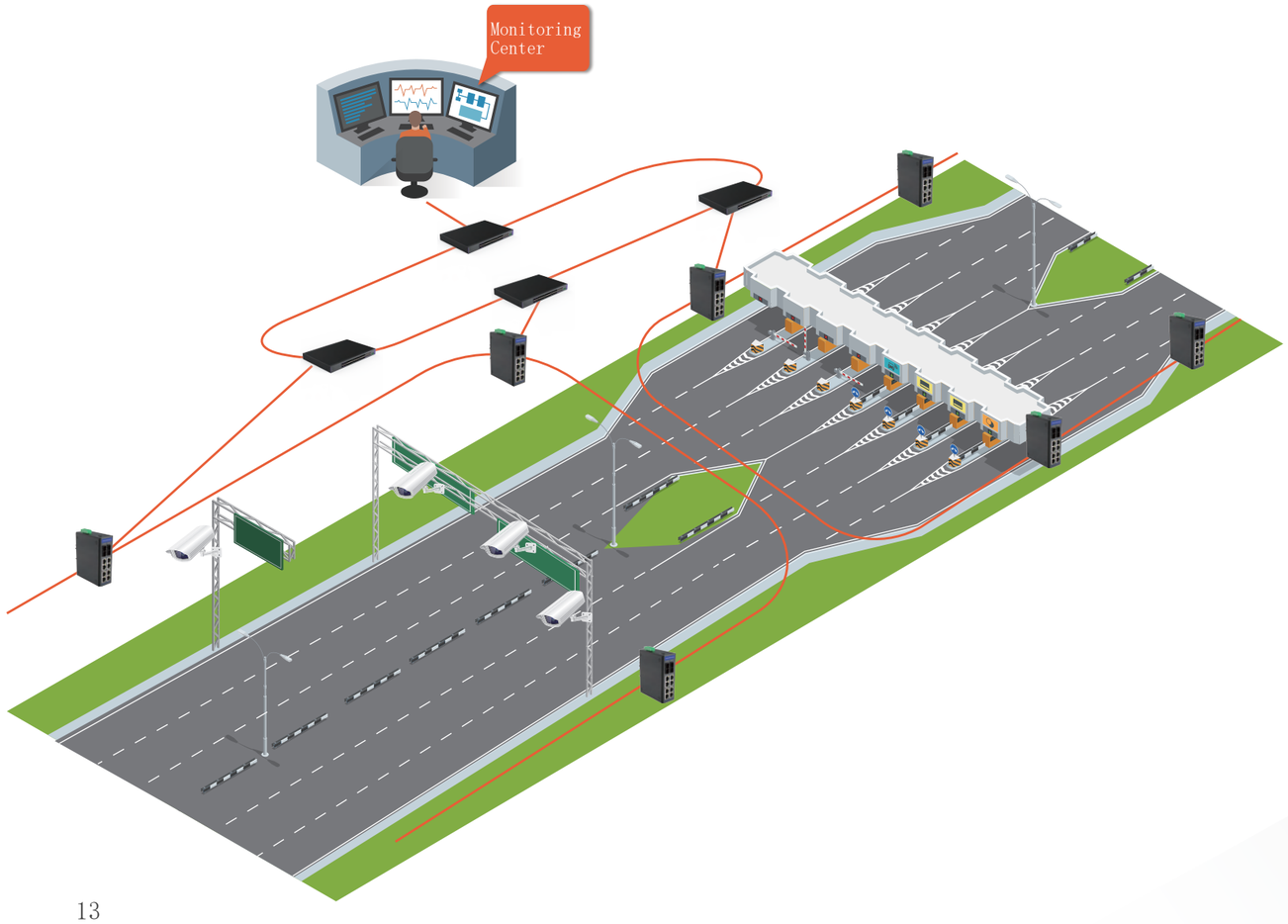
Managed Industrial Ehernet Switch
16x10/100/1000Base-TX + 8x1000Base-FX to
4xUplink Combo Gigabit+

FR-7M3816

Smart Industrial Ehernet Switch
16x10/100/1000Base-TX to 4x1000Base-FX

FR-7N3104P

Industrial Ethernet Switch
4x10/100Base-TX to 1x100Base-FX



Automated Highway

The pavement monitoring system is mainly to monitor highway trunk and master highway traffic conditions. It is mainly through computer application technology, connects the camera, the various sensors, variable integrated intelligence panels, etc., collect traffic data, and transmit traffic flow, etc., and the information is preset by the preset traffic control strategy. After treatment, it is provided to the driving personnel through information papers. This makes the highway key road segment, master the traffic conditions of the high-speed road, and find problems in time, and give guidance in a timely manner to ensure the safe and smooth highway.

Features

- Optical bypass protection, automatically bypass the fault node, to ensure the high reliability of network to protect the network failure.
- Easy network management by web browser, CLI, Telnet/Serial console and Cloud management platform.
- Supports Modbus TCP protocols for device management and monitoring.
- Bandwidth management to prevent unpredictable network status.

Recommend Product

FR-7N3208

Smart Industrial Ehernet Switch
8x10/100/1000Base-TX to 2x1000Base-FX

FR-7M3208

Smart Industrial Ehernet Switch
8x10/100/1000Base-TX to 2x1000Base-FX

FR-7M3408

Smart Industrial Ehernet Switch
8x10/100/1000Base-TX to 4x1000Base-FX

FR-9M348F

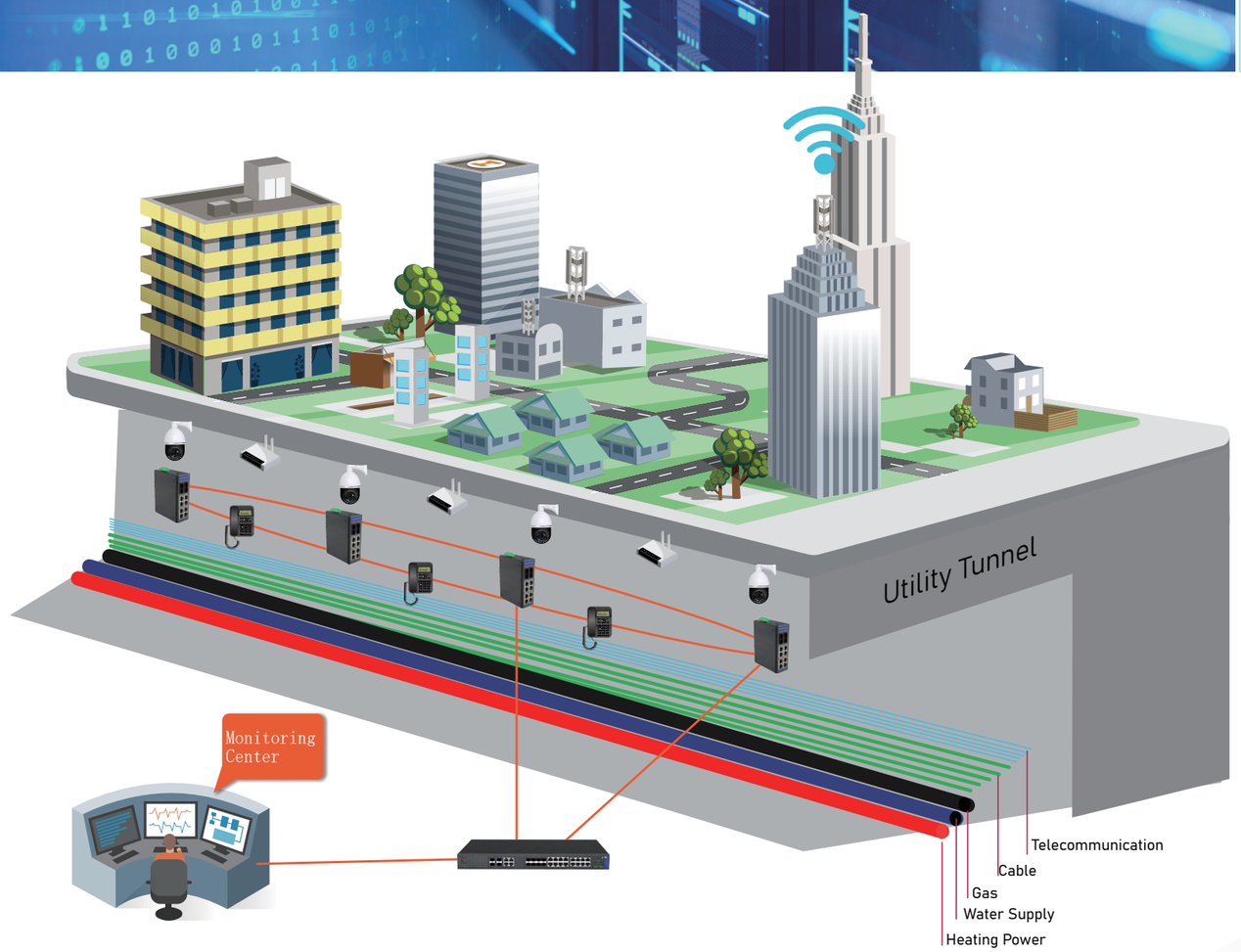
Managed Industrial Ehernet Switch
16x10/100/1000Base-TX + 8x1000Base-FX to
4xUplink Combo Gigabit+

FR-9M4424

Managed Industrial Ehernet Switch
24x10/100/1000Base-TX + 4x10GbE SFP+

FR-7M3408F

Smart Industrial Ehernet Switch
8x10/100/1000Base-TX to 2x1000Base-FX
+ Bypass Protection



Utility Tunnel

The urban underground gallery is also known as "common trenches", which is integrated with various pipelines such as municipal, electric power, communication, gas, water supply and drainage, and build an intensive tunnel in the underground space of urban roads. The underground tube gallery has various line signal lines, heat pipes, gas pipes, telecom pipes, water supply pipes, power pipes, etc. The gallery integrated monitoring system is a deep integrated automation platform that integrates equipment and environmental monitoring, video surveillance, security, fire alarms, voice communications, and power monitoring. Subsystems such as voice communication, power monitoring control.

Features

- RMON for proactive and efficient network monitoring.
- Adopt ERPS ring network protection, with network failure self-healing.
- Prot Trunking for optimum bandwidth utilization
- SNMPv1/v2/v3 for different levels of network management
- Lock port function for blocking unauthorized access based on MAC address

Recommend Product

FR-7N3008

Industrial Ehernet Switch
8x10/100/1000Base-TX

FR-7N3208

Smart Industrial Ehernet Switch
8x10/100/1000Base-TX to 2x1000Base-FX

FR-7N3101P

Industrial Media Converter,
1x10/100/1000Base-Tx PoE + 1x1000Base-Fx

FR-9M448F

Managed Industrial Ethernet switch
16x10/100/1000Base-Tx + 8x1000Base-Fx + 4x10G SFP+

FR-7M3208

Smart Industrial Ehernet Switch
8x10/100/1000Base-TX to 2x1000Base-FX

FR-7M3416

Smart Industrial Ehernet Switch
16x10/100/1000Base-TX to 4x1000Base-FX

Industrial Din Rail Switch

Make IIoT easier

Model		FR-6N1005	FR-6N1101	FR-6N1104	FR-6N1008
					
Parameters	Electrical Port	5×10/100BASE-TX, RJ45	1×10/100BASE-TX, RJ45	4×10/100BASE-TX,RJ45	8×10/100BASE-TX,RJ45
	Optical Fiber		1×100BASE-FX(SFP/1×9)	1×100BASE-FX(SFP/1×9)	
	Backplane Bandwidth	1Gbps	1Gbps	1Gbps	1.6Gbps
	MAC Table Size	1K	1K	1K	1K
	Jumbo Frame	2046bytes	2046bytes	2046bytes	2046bytes
	Packet Buffer	1M	1M	1M	1M
Physical Characteristics	Dimensions	120×90×35 mm	120×90×35 mm	120×90×35 mm	100×78×40 mm
	Weight	320g	300g	350g	300g
	Housing	Aluminum, IP40 Rating	Aluminum, P40 Rating	Aluminum, IP40 Rating	Aluminum, P40 Rating
	Installation	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting
Power Supply	Input	Redundant power supply, 9-56V DC	Redundant power supply, 9-56V DC	Redundant power supply, 9-56V DC	Redundant power supply, 9-56V DC
	Interface	5 PIN Phoenix terminal	5 PIN Phoenix terminal	5 PIN Phoenix terminal	5 PIN Phoenix terminal
	Power Consumption	Full load：<2W	Full load：<3W	Full load：<3W	Full load：<3W
Operating Environment	Operating Temperature	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)
	Ambient Relative Humidity	5 to 90% (non-condensing)	5 to 90% (non-condensing)	5 to 90% (non-condensing)	5 to 90% (non-condensing)

Model		FR-6N3005	FR-6N3101	FR-6N3104	FR-6N3008
					
Parameters	Electrical Port	5×10/100/1000BASE-TX, RJ45	1×10/100/1000BASE-TX，RJ45	4×10/100/1000BASE-TX，RJ45	8×10/100/1000BASE-TX,RJ45
	Optical Fiber		1×1000BASE-FX(SFP/1×9)	1×1000BASE-FX(SFP/1×9)	
	Backplane Bandwidth	1Gbps	1Gbps	1Gbps	1.6Gbps
	MAC Table Size	2K	2K	2K	2K
	Jumbo Frame	2046bytes	2046bytes	2046bytes	2046bytes
	Packet Buffer	1M	1M	1M	1M
Physical Characteristics	Dimensions	120×90×35 mm	120×90×35 mm	120×90×35 mm	100×78×40 mm
	Weight	320g	300g	350g	300g
	Housing	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating
	Installation	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting
Power Supply	Input	Redundant power supply, 9-56V DC	Redundant power supply, 9-56V DC	Redundant power supply, 9-56V DC	Redundant power supply, 9-56V DC
	Interface	5 PIN Phoenix terminal	5 PIN Phoenix terminal	5 PIN Phoenix terminal	5 PIN Phoenix terminal
	Power Consumption	Full load：<3W	Full load：<2W	Full load：<4W	Full load：<5W
Operating Environment	Operating Temperature	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)
	Ambient Relative Humidity	5 to 90% (non-condensing)	5 to 90% (non-condensing)	5 to 90% (non-condensing)	5 to 90% (non-condensing)

Model		FR-7N1005	FR-7N1101	FR-7N1104	FR-7N1008
					
Parameters	Electrical Port	5×10/100BASE-TX，RJ45	1×10/100BASE-TX，RJ45	4×10/100BASE-TX，RJ45	8×10/100BASE-TX，RJ45
	Optical Fiber		1×100BASE-FX(SFP/1×9)	1×100BASE-FX(SFP/1×9)	
	Backplane Bandwidth	1Gbps	1Gbps	1Gbps	1.6Gbps
	MAC Table Size	VID 1 to 4094	VID 1 to 4094	VID 1	8K
	Jumbo Frame	9K bytes	9K bytes	9K bytes	10K bytes
	Packet Buffer	512Kbits	512Kbits	512Kbits	512Kbits
PoE (Option)	Standard	802.3at	802.3at	802.3at	802.3at
	Port	4	1	4	8
	Power	30W	30W	30W	30W
Physical Characteristics	Dimensions	120×90×35 mm	120×90×35 mm	120×90×35 mm	138×108×49 mm
	Weight	350g	350g	400g	680g
	Housing	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating
	Installation	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting
Power Supply	Input	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC
	Interface	6 PIN Phoenix terminal	6 PIN Phoenix terminal	6 PIN Phoenix terminal	6 PIN Phoenix terminal
	Power Consumption	Full load：＜3W	Full load：＜2W	Full load：＜3W	Full load：＜5W
Operating Environment	Operating Temperature	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)
	Ambient Relative Humidity	5 to 90% (non-condensing)	5 to 90% (non-condensing)	5 to 90% (non-condensing)	5 to 90% (non-condensing)

Model		FR-7N3005	FR-7N3101	FR-7N3104	FR-7N3008
					
Parameters	Electrical Port	5×10/100/1000BASE-TX,RJ45	1×10/100/1000BASE-TX, RJ45	4×10/100/1000BASE-TX, RJ45	8×10/100/1000BASE-TX, RJ45
	Optical Fiber		1×1000BASE-FX(SFP/1×9)	1×1000BASE-FX(SFP/1×9)	
	Backplane Bandwidth	1Gbps	1Gbps	1Gbps	1.6Gbps
	MAC Table Size	VID 1 to 4094	VID 1 to 4094	VID 1 to 4094	VID 1 to 4094
	Jumbo Frame	10K Bytes	10K Bytes	10K Bytes	10K Bytes
	Packet Buffer	1M	1M	1M	2M
PoE (Option)	Standard	802.3at	802.3at	802.3at	802.3at
	Port	4	1	4	8
	Power	30W	30W	30W	30W
Physical Characteristics	Dimensions	120×90×35 mm	120×90×35 mm	120×90×35 mm	138×108×49 mm
	Weight	350g	350g	400g	680g
	Housing	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating
	Installation	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting
Power Supply	Input	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC
	Interface	6 PIN Phoenix terminal	6 PIN Phoenix terminal	6 PIN Phoenix terminal	6 PIN Phoenix terminal
	Consumption	Full load：＜2W	Full load：＜3W	Full load：＜3W	Full load：＜5W
Operating Environment	Operating Temperature	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)
	Operating Humidity	5 to 90% (non-condensing)	5 to 90% (non-condensing)	5 to 90% (non-condensing)	5 to 90% (non-condensing)

Model		FR-7N3208	FR-7N3408	FR-7N3808	FR-7N3016	FR-7N3216
						
Parameters	Electrical Port	8×10/100/1000BASE-TX, RJ45	8×10/100/1000BASE-TX,RJ45	8×10/100/1000BASE-TX,RJ45	16×10/100/1000BASE-TX, RJ45	
	Optical Fiber	2×1000BASE-X（SFP/1×9)	4×1000BASE-X(SFP)	8×1000BASE-X(SFP)		2×1000BASE-X(SFP/1×9)
	Backplane Bandwidth	20Gbps	24Gbps	36Gbps	36Gbps	36Gbps
	MAC Table Size	VID 1 to 4094	8K	8K	8K	8K
	Jumbo Frame	9K bytes	9K bytes	10K Bytes	10K Bytes	10K Bytes
	Packet Buffer	2M	4M	4M	4M	4M
PoE (Option)	Standard	802.3at	802.3at	802.3at	802.3at	802.3at
	Port	8	8	8	16	16
	Power	30W	30W	30W	30W	30W
Physical Characteristics	Dimensions	138×108×49 mm	138×108×49 mm	160×132×70 mm	160×132×70 mm	160×132×70 mm
	Weight	680g	680g	680g	1200g	1200g
	Housing	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating
	Installation	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting
Power Supply	Input	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC
	Interface	6 PIN Phoenix terminal	6 PIN Phoenix terminal	6 PIN Phoenix terminal	6 PIN Phoenix terminal	6 PIN Phoenix terminal
	Consumption	Full load：＜10W	Full load：＜10W	Full load：＜18W	Full load：＜15W	Full load：＜18W
Operating Environment	Operating Temperature	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)
	Ambient Relative Humidity	5 to 90% (non-condensing)	5 to 90% (non-condensing)	5 to 90% (non-condensing)	5 to 90% (non-condensing)	5 to 90% (non-condensing)

6 Series Smart Industrial Ethernet Switch Lite

Model		FR-6S3204	FR-6S3208	FR-6M3204	FR-6M3208
					
Parameters	Electrical Port	4×10/100/1000BASE-TX, RJ45	8×10/100/1000BASE-TX,RJ45	4×10/100/1000BASE-TX,RJ45	8×10/100/1000BASE-TX,RJ45
	Optical Fiber	2×1000BASE-X SFP	2×1000BASE-X SFP	2×1000BASE-X SFP	2×1000BASE-X SFP
	Backplane Bandwidth	20Gbps	20Gbps	20Gbps	20Gbps
	MAC Table Size	VID 1 to 4094	VID 1 to 4094	VID 1 to 4094	VID 1 to 4094
	Jumbo Frame	9K bytes	9K bytes	9K bytes	9K bytes
	Packet Buffer	2M	2M	2M	2M
Physical Characteristics	Dimensions	138×108×49 mm	138×108×49 mm	138×108×49 mm	138×108×49 mm
	Weight	680g	680g	680g	680g
	Housing	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating
	Installation	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting
Power Supply	Input	Redundant power supply, 9-56V DC	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC
	Interface	6 PIN Phoenix terminal	6 PIN Phoenix terminal	6 PIN Phoenix terminal	6 PIN Phoenix terminal
	Consumption	Full load：＜10W	Full load：＜10W	Full load：＜10W	Full load：＜10W
Working Environment	Operating Temperature	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)
	Operating Humidity	5 to 90% (non-condensing)	5 to 90% (non-condensing)	5 to 90% (non-condensing)	5 to 90% (non-condensing)
Ethernet Software Features	VLAN ID	VID 1 to 4094	VID 1 to 4094	VID 1 to 4094	VID 1 to 4094
	IPv6/IPv4	IPv4	IPv4	IPv4	IPv4
	ERPS Ring	N/A	N/A	Support	Support
	STP	Support	Support	N/A	N/A
	802.1 Priority	4 queues	4 queues	4 queues	4 queues
Management	Interface	RJ45	RJ45	RJ45	RJ45
	Management	Web	Web	Web, SNMP	Web, SNMP
	Software Upgrade	HTTP	HTTP	HTTP	HTTP

Model		FR-7S3208	FR-7M3408	FR-7M3808	FR-7M3416	FR-7M3816
						
Switch Properties	Electrical Port	8×10/100/1000BASE-TX，RJ45	8×10/100/1000BASE-TX，RJ45	8×10/100/1000BASE-TX，RJ45	16×10/100/1000BASE-TX，RJ45	16×10/100/1000BASE-TX
	Optical Fiber	2×1000BASE-X SFP	4×1000BASE-X(SFP)	8×1000BASE-X(SFP)	4×1000BASE-X(SFP/1×9)	8×1000BASE-X（SFP)
	Backplane Bandwidth	20Gbps	24Gbps	56Gbps	56Gbps	56Gbps
	MAC Table Size	8K	8K	8K	8K	8K
	Jumbo Frame	10K Bytes	10K Bytes	10K Bytes	10K Bytes	10K Bytes
	Packet Buffer	4M	4M	4M	4M	4M
POE (Option)	Standard	—	802.3at	802.3at	802.3at	802.3at
	Port	—	8	8	16	16
	Power	—	30W	30W	30W	30W
Physical Characteristics	Dimensions	138×108×49 mm	138×108×49 mm	160×132×70 mm	160×132×70 mm	160×132×70 mm
	Weight	680g	680g	1200g	1200g	1200g
	Housing	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating
	Installation	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting
Power Supply	Input	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC
	Interface	6 PIN Phoenix terminal	6 PIN Phoenix terminal	6 PIN Phoenix terminal	6 PIN Phoenix terminal	6 PIN Phoenix terminal
	Consumption	Full Load：<10W	Full Load：<12W	Full Load：<22W	Full Load：<20W	Full Load：<25W
Operating Environment	Operating Temperature	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)
	Ambient Relative Humidity	5 to 90% (non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)
VLAN	Port Based VLAN	√/VID 1 to 4094	√/VID 1 to 4094	√/VID 1 to 4094	√/VID 1 to 4094	√/VID 1 to 4094
	GVRP	√	√	√	√	√
Multicast	IGMP Snooping	v1,v2,v3	v1,v2,v3	v1,v2,v3	v1,v2,v3	√/VID 1 to 4094
STP	STP(802.1D)	√	√	√	√	√
	RSTP(802.1w)	√	√	√	√	√
	MSTP(802.1s)	√	√	√	√	√
ERPS	Version	ERPSv1 & ERPSv2	ERPSv1 & ERPSv2	ERPSv1 & ERPSv2	ERPSv1 & ERPSv2	ERPSv1 & ERPSv2
QoS	802.1p Priority	4 queues	4 queues	4 queues	4 queues	4 queues
	Queue Scheduling	WRR	WRR	WRR	WRR	WRR
	DSCP Priority	√	√	√	√	√
	Port Priority	√	√	√	√	√
	Rate Limitation	√	√	√	√	√
Security	802.1x Security	√	√	√	√	√
	RADIUS	√	√	√	√	√
	MAC Filtering	√	√	√	√	√
ACL	IP Based	√	√	√	√	√
	MAC Based	√	√	√	√	√
	Port Based	√	√	√	√	√
Management	IPv6/IPv4	IPv4	IPv4	IPv4	IPv4	IPv4
	CLI	√	√	√	√	√
	Telnet	√	√	√	√	√
	Web	√	√	√	√	√
	SNMP	v1,v2,v3	v1,v2,v3	v1,v2,v3	v1,v2,v3	v1,v2,v3
	RMON	1,2,3,9	1,2,3,9	1,2,3,9	1,2,3,9	1,2,3,9
	SSH/SSL	√	√	√	√	√
	Software Upgrade	HTTP	HTTP	HTTP	HTTP	HTTP
	Configuration Import/Export	√	√	√	√	√
	Sys Log	√	√	√	√	√

7 Series Smart Industrial Ethernet Switch

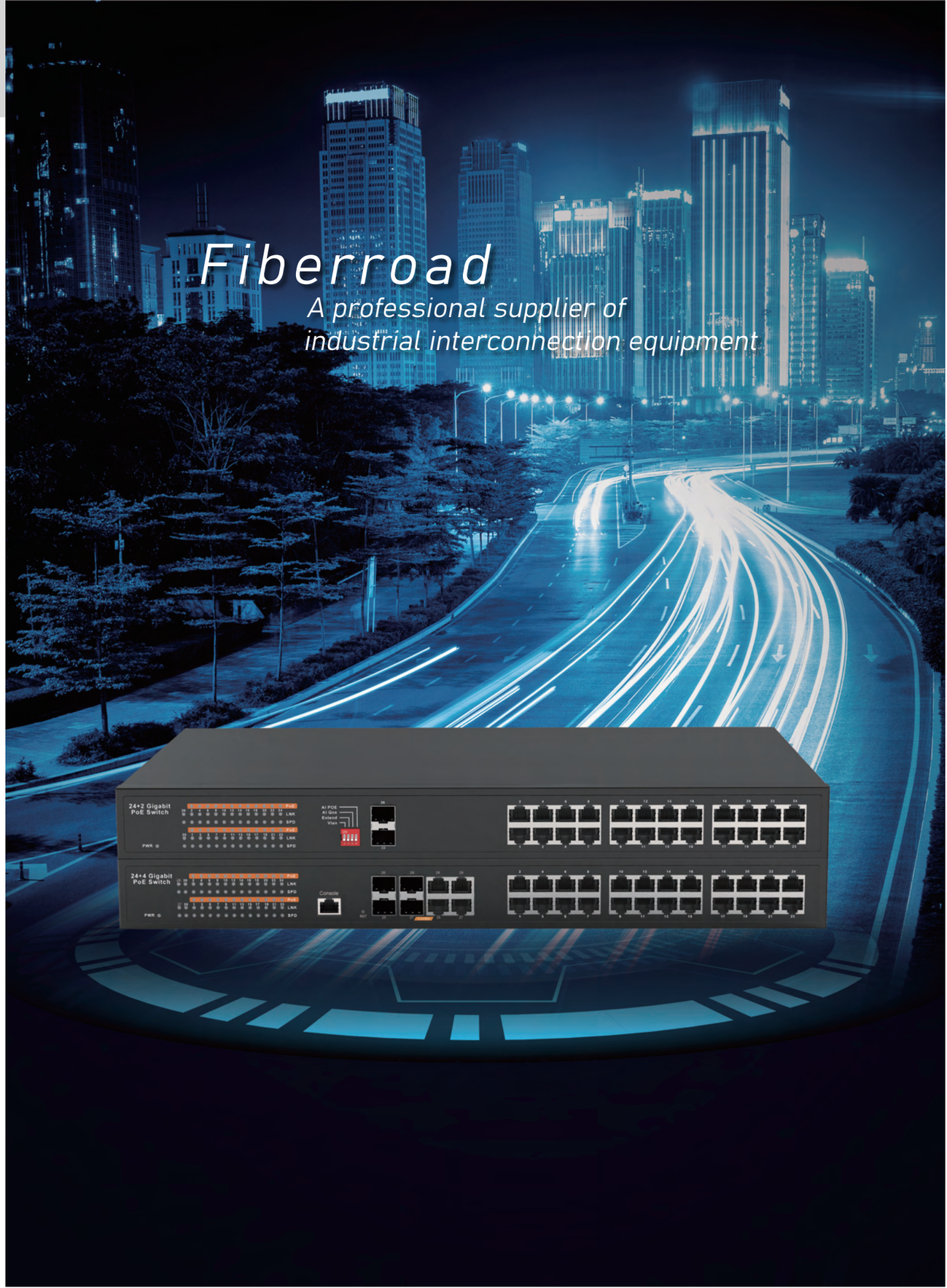
Model		FR-7M3208F	FR-7M3408F	FR-7M3404S	FR-7M3408S
					
Switch Properties	Electrical Port	8×10/100/1000BASE-TX，RJ45	8×10/100/1000BASE-TX，RJ45	4×10/100/1000BASE-TX，RJ45	8×10/100/1000BASE-TX，RJ45
	Optical Fiber		2×1000BASE-X SFP	2×1000BASE-X（SFP)	2×1000BASE-X（SFP)
	Function	2×1000BASE-X bypass Optical Bypass Protection	2×1000BASE-X bypass Optical Bypass Protection	2×RS-232/422/485	2×RS-232/422/485
	Backplane Bandwidth	28Gbps	28Gbps	28Gbps	28Gbps
	MAC Table Size	8K	8K	8K	8K
	Jumbo Frame	10K Bytes	10K Bytes	10K Bytes	10K Bytes
	Packet Buffer	4M	4M	4M	4M
PoE(Option)	Standard	—	—	—	—
	Port	—	—	—	—
	Power	—	—	—	—
Physical Characteristics	Dimensions	138×108×49 mm	138×108×49 mm	138×108×49 mm	138×108×49 mm
	Weight	680g	680g	680g	680g
	Housing	Aluminum, IP40	Aluminum, IP40	Aluminum, IP40	Aluminum, IP40
	Installation	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting	Din Rail/ Wall Mounting
Power Supply	Input	Redundant power supply 9-56V DC	Redundant power supply 9-56V DC	Redundant power supply 9-56V DC	Redundant power supply 9-56V DC
	Interface	6 PIN Phoenix Terminal	6 PIN Phoenix terminal	6 PIN Phoenix Terminal	6 PIN Phoenix Terminal
	Consumption	Full Load：<12W	Full Load：<12W	Full Load：<12W	Full Load：<12W
Operating Environment	Operating Temperature	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)
	Ambient Relative Humidity	5 to 90%(non-condensing)	5 to 90%(non-con-	5 to 90%(non-condensing)	5 to 90%(non-condensing)
VLAN	Port Based	√/VID 1 to 4094	√/VID 1 to 4094	√/VID 1 to 4094	√/VID 1 to 4094
	GVRP	√	√	√	√
Multicast	IGMP Snooping	v1,v2,v3	v1,v2,v3	v1,v2,v3	v1,v2,v3
STP	STP(802.1D)	√	√	√	√
	RSTP(802.1w)	√	√	√	√
	MSTP(802.1s)	√	√	√	√
ERPS	Version	ERPSv1 & ERPSv2	ERPSv1 & ERPSv2	ERPSv1 & ERPSv2	ERPSv1 & ERPSv2
QoS	802.1p Priority	4 queues	4 queues	4 queues	4 queues
	Queue Scheduling	WRR	WRR	WRR	WRR
	DSCP Priority	√	√	√	√
	Port Priority	√	√	√	√
	Rate Limitation	√	√	√	√
Security	802.1x Security	√	√	√	√
	RADIUS	√	√	√	√
	MAC Filtering	√	√	√	√
ACL	IP Based	√	√	√	√
	MAC Based	√	√	√	√
	Port Based	√	√	√	√
Management	IPv6/IPv4	IPv4	IPv4	IPv4	IPv4
	CLI	√	√	√	√
	Telnet	√	√	√	√
	Web	√	√	√	√
	SNMP	v1,v2,v3	v1,v2,v3	v1,v2,v3	v1,v2,v3
	RMON	1,2,3,9	1,2,3,9	1,2,3,9	1,2,3,9
	SSH/SSL	√	√	√	√
	Software Upgrade	HTTP	HTTP	HTTP	HTTP
	Configuration Import/Export	√	√	√	√
	Sys Log	√	√	√	√

L2 Managed Industrial Ethernet Switch

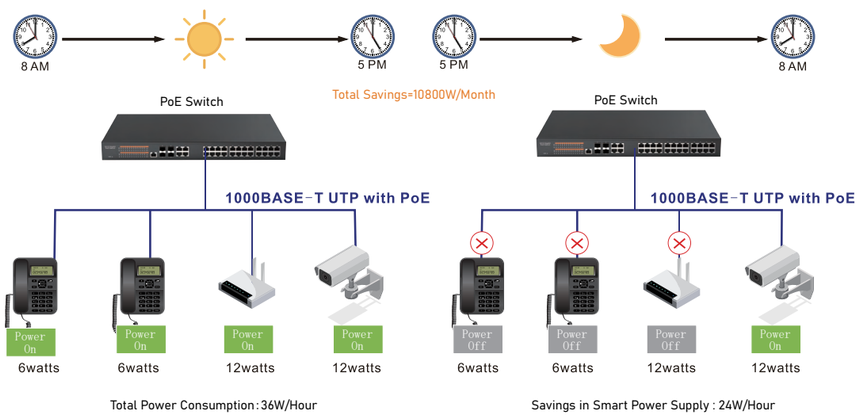
Model		FR-9M3424	FR-9M348F	FR-9M34F8	FR-9M3648
					
Switch Characteristic	Electrical Port	24×10/100/1000BASE-TX，RJ45	16×10/100/1000BASE-TX，RJ45	8×10/100/1000BASE-TX，RJ45	48×10/100/1000BASE-TX，RJ45
	Optical Fiber	4×1000BASE-X Combo	8×1000BASE-X SFP 4×1000BASE-T Combo	16×1000BASE-X SFP 4×1000BASE-T Combo	6×1000BASE-X SFP
	Backplane bandwidth	56Gbps	56Gbps	56Gbps	256Gbps
	MAC Table Size	8K	8K	8K	16K
	Jumbo Frame	10K Bytes	10K Bytes	10K Bytes	10K Bytes
	Packet Buffer	4M	4M	4M	12M
POE (Option)	Standard	802.3at/802.3bt	802.3at/802.3bt	802.3at/802.3bt	—
	Port	24	16	8	—
	Power	30W/90W	30W/90W	30W/90W	—
Physical Characteristics	Dimensions	400×300×45 mm	400×300×45 mm	400×300×45 mm	400×300×45 mm
	Weight	2600g	2600g	2600g	3000g
	Housing	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating
	Installation	Rack Mount	Rack Mount	Rack Mount	Rack Mount
Power Supply	Input	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC	Redundant power supply，9-56V DC
	Interface	5 PIN Phoenix Terminal	5 PIN Phoenix Terminal	5 PIN Phoenix Terminal	5 PIN Phoenix Terminal
	Consumption	Full Load：＜25W	Full Load：＜30W	Full Load：＜35W	Full Load：＜45W
Operating Environment	Operating Temperature	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)
	Ambient Relative Humidity	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)
VLAN	Port Based	√/VID 1 to 4094	√/VID 1 to 4094	√/VID 1 to 4094	√/VID 1 to 4094
		√	√	√	√
Multicast	IGMP Snooping	v1,v2,v3	v1,v2,v3	v1,v2,v3	v1,v2,v3
STP	STP(802.1D)	√	√	√	√
	RSTP(802.1w)	√	√	√	√
	MSTP(802.1s)	√	√	√	√
ERPS	Version	ERPSv1 & ERPSv2	ERPSv1 & ERPSv2	ERPSv1 & ERPSv2	ERPSv1 & ERPSv2
QoS	802.1q Priority	4 queues	4 queues	4 queues	4 queues
	Queue Scheduling	WRR	WRR	WRR	WRR
	DSCP Priority	√	√	√	√
	Port Priority	√	√	√	√
	Rate Limitation	√	√	√	√
Security	802.1x Security	√	√	√	√
	RADIUS	√	√	√	√
	MAC Filtering	√	√	√	√
ACL	IP Based	√	√	√	√
	MAC Based	√	√	√	√
	Port Based	√	√	√	√
Management	IPv6/IPv4	IPv4	IPv4	IPv4	IPv4
	CLI	√	√	√	√
	Telnet	√	√	√	√
	Web	√	√	√	√
	SNMP	v1,v2,v3	v1,v2,v3	v1,v2,v3	v1,v2,v3
	RMON	1,2,3,9	1,2,3,9	1,2,3,9	1,2,3,9
	SSH/SSL	√	√	√	√
	Software Update	HTTP	HTTP	HTTP	HTTP
	Configuration Import/Export	√	√	√	√
	Sys Log	√	√	√	√

L3 Managed Industrial Ethernet Switch

Model		FR-9M4424	FR-9M448F	FR-9M44F8	FR-9M4648
					
Switch Characteristic	Electrical Port	24×10/100/1000BASE-TX，RJ45	16×10/100/1000BASE-TX，RJ45	8×1000BASE-X Combo	48×10/100/1000BASE-TX，RJ45
	Optical Fiber	4×10GbE SFP+	8×1000BASE-X Combo 4×10GbE SFP+	16×1000BASE-X SFP 4×10GbE SFP+	6×10GbE SFP+
	Backplane bandwidth	128Gbps	128Gbps	128Gbps	256Gbps
	MAC Table Size	16K	16K	16K	16K
	Jumbo Frame	10K Bytes	10K Bytes	10K Bytes	10K Bytes
	Packet Buffer	12M	12M	12M	
POE (Option)	Standard	802.3at/802.3bt	802.3at/802.3bt	802.3at/802.3bt	802.3at/802.3bt
	Port	24	16	8	/
	Power	30W/90W	30W/90W	30W/90W	/
Physical Characteristics	Dimensions	400×300×45 mm	400×300×45 mm	400×300×45 mm	400×300×45 mm
	Weight	2800g	2800g	2800g	3000g
	Housing	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating
	Installation	Rack Mounting	Rack Mounting	Rack Mounting	Rack Mounting
Power Supply	Input	Redundant power supply, 9-56V DC or 220VAC	Redundant power supply, 9-56V DC or 220VAC	Redundant power supply, 9-56V DC or 220VAC	Redundant power supply, 9-56V DC or 220VAC
	Interface	5 PIN Phoenix Terminal	5 PIN Phoenix Terminal	5 PIN Phoenix Terminal	5 PIN Phoenix Terminal
	Consumption	Full Load：<25W	Full Load：<30W	Full Load：<35W	Full Load：<45W
Operating Environment	Operating Temperature	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)	-40 to 75℃(-40 to 185℉)
	Ambient Relative Humidity	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)
IP Routing	Static Routing	√	√	√	√
	RIP v1/v2	√	√	√	√
	OSPFv2	√	√	√	√
	VRRP	√	√	√	√
VLAN	802.1Q VLAN	√ /256	√ /256	√ /256	√ /256
	Q-in-Q VLAN	√	√	√	√
	Private VLAN	√	√	√	√
		√	√	√	√
Multicast	IGMP Snooping	v1,v2,v3	v1,v2,v3	v1,v2,v3	v1,v2,v3
	MVR	√	√	√	√
STP	STP (802. 1D)	√	√	√	√
	RSTP (802. 1w)	√	√	√	√
	MSTP (802. 1s)	√	√	√	√
ERPS	Version	ERPSv1 & ERPSv2	ERPSv1 & ERPSv2	ERPSv1 & ERPSv2	ERPSv1 & ERPSv2
QoS	802.1q Priority	4 queues	4 queues	4 queues	4 queues
	Queue Scheduling	WRR	WRR	WRR	WRR
	DSCP Priority	√	√	√	√
	Port Priority	√	√	√	√
	Rate Limitation	√	√	√	√
Security	802.1x Security	√	√	√	√
	RADIUS	√	√	√	√
	MAC Filtering	√	√	√	√
ACL	IP Based	√	√	√	√
	MAC Based	√	√	√	√
	Port Based	√	√	√	√
Management	IPv6/IPv4	√ / √	√ / √	√ / √	√ / √
	CLI	√ /RJ45	√ /RJ45	√ /RJ45	√ /RJ45
	Protocol		Telnet, Web, SNMP		
	RMON	1,2,3,9	1,2,3,9	1,2,3,9	1,2,3,9
	SSH/SSL	√	√	√	√
	Software Update	HTTP	HTTP	HTTP	HTTP
	Configuration Import/Export	√	√	√	√
	Sys Log	√	√	√	√



AI PoE Switch series is developed by Fiberroad. Single port PoE power reaches 30W, and the maximum PoE output power is 300W. It can support the AI PoE function. When the port communication failure corresponds to the port POE will automatically restart, self-recover network communication, reducing manual intervention and maintenance. As a PoE power supply device, it can automatically detect and recognize the power receiving equipment that meets the standard and supply power through the network cable. It can supply power to PoE terminal equipment such as wireless AP, webcam, VoIP phone, building visual access control intercom through a network cable, to meet the network environment that needs high-density PoE power supply, suitable for hotels, campuses, parks, supermarkets, scenic spots, Factory quarters and SMB small and medium-sized enterprises form a cost-effective network.



Model		FR-5A3010P	FR-5A3208P	FR-5A3416P	FR-5A3424P
					
Switch Properties	Electrical Port	10×10/100/1000BASE-TX，RJ45	8×10/100/1000BASE-TX，RJ45	16×10/100/1000BASE-TX，RJ45	24×10/100/1000BASE-TX，RJ45
	Optical Fiber		2×1000BASE-X SFP	2×1000BASE-X SFP	2×1000BASE-X SFP
	Backplane bandwidth	24Gbps	24Gbps	56Gbps	56Gbps
	MAC Table Size	2K	2K	2K	2K
	Jumbo Frame	2046bytes	2046bytes	10K Bytes	10K Bytes
	Packet Buffer	2M	2M	2M	2M
POE	Standard	802.3at	802.3at	802.3at	802.3at
	Port	8	8	16	24
	Power	30W	30W	30W	30W
Physical Characteristics	Dimensions	220×108×28 mm	220×108×28 mm	400×300×45 mm	400×300×45 mm
	Weight	680g	680g	3800g	3800g
	Housing	Iron	Iron	Iron	Iron
	Installation	Desktop	Desktop	Rack Mounting	Rack Mounting
Power Supply	Input	Exterbal Power Supply 220V AC（150W）	Exterbal Power Supply 220V AC（150W）	Internal Power Supply 220V AC（300W）	Internal Power Supply 220V AC（300W）
	Consumption	Full Load：<120W	Full Load：<120W	Full Load：<300W	Full Load：<350W
Operating Environment	Operating Temperature	0 to 55℃(32 to 131℉)	0 to 55℃(32 to 131℉)	0 to 55℃(32 to 131℉)	0 to 55℃(32 to 131℉)
	Ambient Relative Humidity	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)
AI PoE Mode	AI VLAN	√	√	√	√
	AI Extend	√	√	√	√
	AI QoS	√	√	√	√
	AI PoE	√	√	√	√

Model		FR-5M3208P	FR-5M3416P	FR-5M3424P	FR-5M3448
					
Switch Properties	Electrical Port	8×10/100/1000BASE-TX，RJ45	16×10/100/1000BASE-TX，RJ45	24×10/100/1000BASE-TX，RJ45	48×10/100/1000BASE-TX，RJ45
	Optical Fiber	2×1000BASE-X SFP	4×1000BASE-X Combo	4×1000BASE-X Combo	4×1000BASE-X Combo
	Backplane Bandwidth	20Gbps	56Gbps	56Gbps	256Gbps
	MAC Table Size	8K	8K	8K	8K
	Jumbo Frame	10K Bytes	10K Bytes	10K Bytes	10K Bytes
	Packet Buffer	4M	4M	4M	12M
PoE	Standard	802.3at/802.3bt	802.3at/802.3bt	802.3at/802.3bt	
	Port	8	16	24	
	Power	30W/90W	30W/90W	30W/90W	
Physical Characteristics	Dimensions	205×140×45 mm	400×300×45 mm	400×300×45 mm	400×300×45 mm
	Weight	1200g	3800g	4000g	4500g
	Housing	Iron	Iron	Iron	Iron
	Installation	Rack Mounting	Rack Mounting	Rack Mounting	Rack Mounting
Power Supply	Input	Internal Power Supply 220V AC（150W）	Internal Power Supply 220V AC（350W）	Internal Power Supply 220V AC（400W）	Internal Power Supply 220V AC
	Interface	3 Pin AC Power Socket	3 Pin AC Power Socket	3 Pin AC Power Socket	3 Pin AC Power Socket
	Power Consumption	Full Load：<150W	Full Load：<350W	Full Load：<400W	Full Load：<60W
Operating Environment	Operating Temperature	0 to 55℃(32 to 131℉)	0 to 55℃(32 to 131℉)	0 to 55℃(32 to 131℉)	0 to 55℃(32 to 131℉)
	Ambient Relative Humidity	5 to 90%(non-condens-	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)
Smart POE	Power Limiting	√	√	√	√
	Pwer Distribution	√	√	√	√
	POE Priority	√	√	√	√
	POE Scheduling	√	√	√	√
VLAN	Port Based VLAN	√/VID 1 to 4094	√/VID 1 to 4094	√/VID 1 to 4094	√/VID 1 to 4094
	GVRP	√	√	√	√
Multicast	IGMP Snooping	v1,v2,v3	v1,v2,v3	v1,v2,v3	v1,v2,v3
STP	STP(802.1D)	√	√	√	√
	RSTP(802.1w)	√	√	√	√
	MSTP(802.1s)	√	√	√	√
QoS	802.1p Priority	4 queues	4 queues	4 queues	4 queues
	Queue Scheduling	WRR	WRR	WRR	WRR
	DSCP Priority	√	√	√	√
	Port Priority	√	√	√	√
	Rate Limitation	√	√	√	√
Security	802.1x Security	√	√	√	√
	RADIUS	√	√	√	√
	MAC Filtering	√	√	√	√
ACL	IP Based	√	√	√	√
	MAC Based	√	√	√	√
	Port Based	√	√	√	√
Management	IPv6/IPv4	IPv4	IPv4	IPv4	IPv4
	CLI	√/RJ45	√/RJ45	√/RJ45	√/RJ45
	Telnet	√	√	√	√
	Web	√	√	√	√
	SNMP	v1,v2,v3	v1,v2,v3	v1,v2,v3	v1,v2,v3
	RMON	1,2,3,9	1,2,3,9	1,2,3,9	1,2,3,9
	SSH/SSL	√	√	√	√
	Software Upgrade	HTTP	HTTP	HTTP	HTTP
	Configuration Import/Export	√	√	√	√
	Sys Log	√	√	√	√

FIRO CLOUD

Cloud Management Platform

FIRO Cloud Management Platform is developed by Fiberroad. Which provides a set of switch online management platform based on the Internet of Things MQTT protocol, also convenient for customers to remotely view the status of all cloud switches in their own network, locate and solve network failures.

CLOUD MANAGEMENT FEATURES

No Installation and Simple Configuration

Intuitive Display of Device Statue

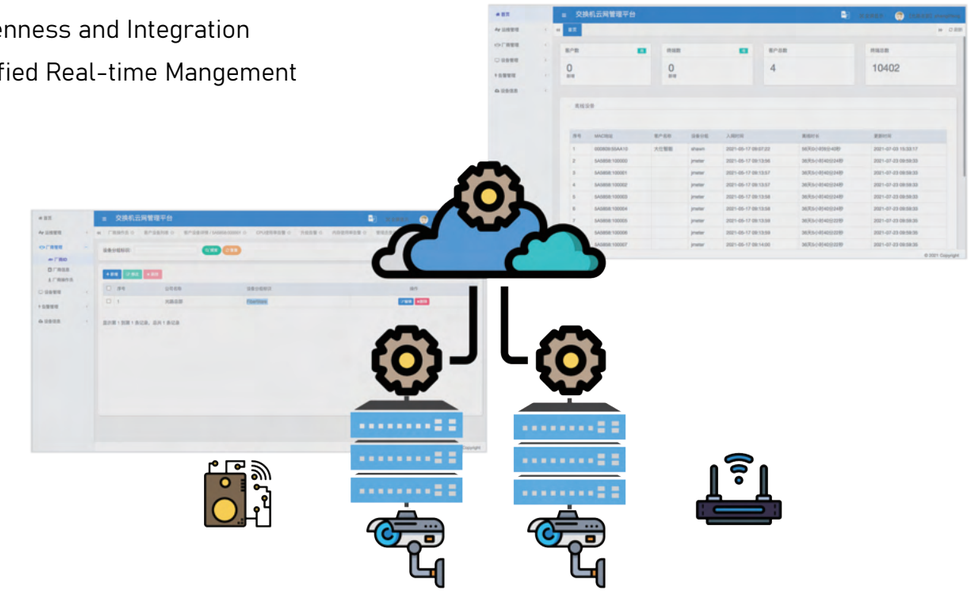
Real-time Alarm Status

Independent User Management System

- Supports WebGUI and Mobile APPs to access.
- Efficiently manage your network anytime, anywhere.

Standard MQTT Protocol

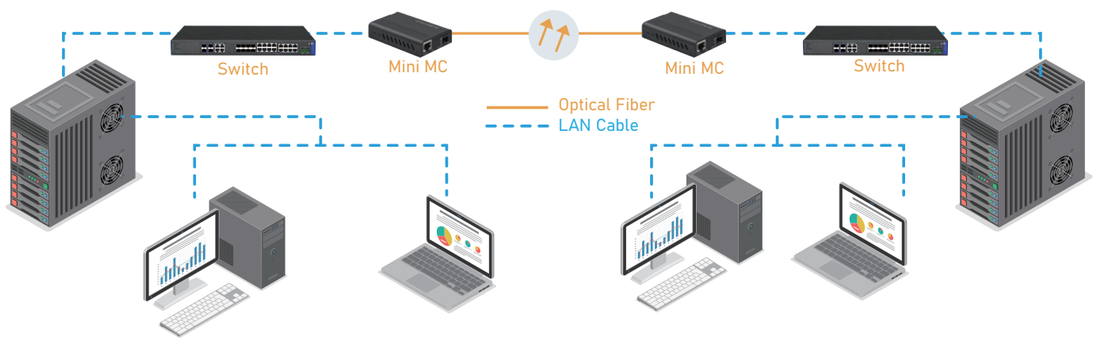
- Openness and Integration
- Unified Real-time Mangement



Comprehensive Data Analysis

Including Ports, Equipment Load. Chart Diaplay,Clear and Intuitive

Fiberroad offers space saving Mini Media Conversion in the wiring closet by providing a means for rack space while reducing the number of wall outlet power connections required. The Mini Media Converters is hot-swappable, which can be removed from the rack, powered externally, and used as stand-alone units in new applications as your network needs change in the future.

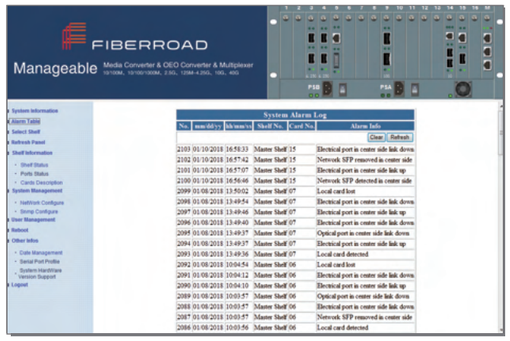


Model		FR-2201	FR-2203	FR-2206	FR-2222	FR-2212
						
Properties	Electrical Port	1×10/100BASE-TX，RJ45	1×10/100/1000BASE-TX，RJ45	2×10/100/1000BASE-TX，RJ45	10GBASE-T RJ45	
	Optical Fiber	1×100BASE-FX（SFP/1×9）	1×1000BASE-X（SFP/1×9）	1×1000BASE-X SFP	1×10G SFP+ Slot	2×10G SFP+ Slot
	Jumbo Frame	2K	2K	2K	2K	2K
	Packet Buffer	10K Bytes	10K Bytes	10K Bytes	10K Bytes	10K Bytes
Physical Characteristics	Dimensions	90×60×20 mm	90×60×20 mm	90×60×20 mm	90×60×20 mm	90×60×20mm
	Weight	130g	130g	140g	150g	140g
	Housing	Iron	Iron	Iron	Iron	Iron
	Installation	Desktop and Wall Mounting	Desktop and Wall Mounting	Desktop and Wall Mounting	Desktop and Wall Mounting	Desktop and Wall Mounting
Power Supply	Input	External Power Supply 5～12V-1A	External Power Supply 5～12V-1A	External Power Supply 5～12V-1A	External Power Supply 5～12V-1A	External Power Supply 5～12V-1A
	Interface	DC-2.1	DC-2.1	DC-2.1	DC-2.1	DC-2.1
	Power Consumption	Full Load：＜2W	Full Load：＜3W	Full Load：＜3W	Full Load：＜5W	Full Load：＜5W
Operating Environment	Operating Temperature	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)
	Ambient Relative Humidity	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)
Additional Features	DIP Switch	LFP ALS FX Speed Set FX Reset	LFP ALS FX Speed Set FX Reset	LFP ALS FX Speed Set	LFP ALS FX Speed Set	LFP ALS FX Speed Set

Model		FR-2701	FR-2703	FR-2706	FR-2722	FR-2712
						
Properties	Electrical Port	1×10/100BASE-TX，RJ45	1×10/100/1000BASE-TX，RJ45	2×10/100/1000BASE-TX，RJ45	1×10GBASE-T RJ45	
	Optical Fiber	1×100BASE-X（SFP/1×9）	1×1000BASE-X（SFP/1×9）	1×1000BASE-X SFP	1×10G SFP+ Slot	2×10G SFP+ Slot
	Jumbo Frame	2K	2K	2K	2K	2K
	Packet Buffer	10K Bytes	10K Bytes	10K Bytes	10K Bytes	-
PoE(Option)	Standard	802.3at	802.3at	802.3at	802.3at	-
	Port	1	1	2	1	-
	Power	30W	30W	30W	30W	-
Physical Characteristics	Dimensions	118×39×26 mm	118×39×26 mm	118×39×26 mm	118×39×26 mm	118×39×26 mm
	Weight	120g	120g	120g	120g	120g
	Housing	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating	Aluminum, IP40 Rating
	Installation	Desktop and Wall Mounting	Desktop and Wall Mounting	Desktop and Wall Mounting	Desktop and Wall Mounting	Desktop and Wall Mounting
Power Supply	Inpu	9-56V DC	9-56V DC	9-56V DC	9-56V DC	9-56V DC
	Interface	2 PIN Phoenix Terminal	2 PIN Phoenix Terminal	2 PIN Phoenix Terminal	2 PIN Phoenix Terminal	2 PIN Phoenix Terminal
	Power Consumption	Full Load：＜2W	Full Load：＜3W	Full Load：＜3W	Full Load：＜5W	Full Load：＜5W
Operating Environment	Operating Temperature	-40 to 75℃(-40 to -103℉)	-40 to 75℃(-40 to -103℉)	-40 to 75℃(-40 to -103℉)	-40 to 75℃(-40 to -103℉)	-40 to 75℃(-40 to -103℉)
	Ambient Relative Humidity	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)
Additional Features	DIP Switch	LFP ALS FX Speed Set FX Reset	LFP ALS FX Speed Set FX Reset	JOMBO Frame VLAN FX Speed Set	LFP ALS FX Speed Set	LFP ALS FX Speed Set FX Reset

Model		FR-POE231	FR-POE232	FR-POE233	FR-POE331	FR-POE332
						
Properties	Electrical Port	1×10/100BASE-TX，RJ45	1×10/100/1000BASE-TX，RJ45	2×10/100/1000BASE-TX，RJ45	1×10/100BASE-TX，RJ45	1×10/100/1000BASE-TX，RJ45
	Optical Fiber	1×100BASE-X(SFP/1×9)	1×1000BASE-X(SFP/1×9)	1×1000BASE-X SFP	1×100BASE-X（SFP/1×9）	1×1000BASE-X（SFP/1×9）
	Jumbo Frame	2K	2K	2K	2K	2K
	Packet Buffer	10K Bytes	10K Bytes	10K Bytes	10K Bytes	8K
PoE	Standard	802.3at	802.3at	802.3at	802.3at	802.3at
	Port	1	1	2	1	1
	Power	30W	30W	30W	30W	30W
Physical Characteristics	Dimensions	95×70×26 mm	95×70×26 mm	95×70×26 mm	140×110×40mm	140×110×40mm
	Weight	200g	200g	210g	600g	600g
	Housing	Iron	Iron	Iron	Iron	Iron
	Installation	Desktop and Wall Mounting	Desktop and Wall Mounting	Desktop and Wall Mounting	Desktop and Wall Mounting	Desktop and Wall Mounting
Power Supply	Inpu	External Power Supply 220VAC(30W)	External Power Supply 220VAC(30W)	External Power Supply 220VAC(30W)	Internal Power Supply 220VAC(60W)	Internal Power Supply 220VAC(60W)
	Interface	DC-2.5	DC-2.5	DC-2.5	3 Pin AC Power Socket	3 Pin AC Power Socket
	Power Consumption	Full Load：＜30W	Full Load：＜30W	Full Load：＜30W	Full Load：＜60W	Full Load：＜60W
Operating Environment	Operating Temperature	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)
	Ambient Relative Humidity	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)
Additional Features	DIP Switch	LFP ALS FX Speed Set FX Reset	LFP ALS FX Speed Set FX Reset	LFP ALS FX Speed Set	LFP ALS FX Speed Set PoE ON/OFF	LFP ALS FX Speed Set PoE ON/OFF

FR-6000 series is a carrier-grade integrated network management system independently developed by Fiberoad Technology. Based on the design idea of high quality and high reliability, it is positioned in the broadband network access market. It provides users with sufficient bandwidth, reliable performance and powerful optical fibre network solution. The integrated network management system provides a graphical management interface for centralised management. It adopts a master-slave management structure. The network management card collects information and controls the functions of the service cards on the rack. Multiple sub-racks can be externally connected through the interface of the cascade card to manage up to 10 frames above the table. The network management software supports FTP online upgrades. It provides five kinds of management: WEB browser management, standard SNMP management, exceptional EMS software management, Windows HyperTerminal management and serial port TELNET command line management.



WEB Management Interface

EMS Management Interface

Appearance		2U-16Slots Chassis	1U-8Slots Chassis	Plug-in Card Desktop	Stationary Desktop
					
Physical Characteristics	Dimensions	425×310×90 mm	440×330×45 mm	160×130×32 mm	118×90×29 mm
	Weight	6kg	5.2kg	800g	300g
	Housing	Aluminum	Aluminum	Aluminum	Aluminum
	Installation	Chassis	Chassis	Desktop	Desktop
Power Supply	Input	Redundant Power Supply 220V AC/48V DC	Redundant Power Supply 220V AC/48V DC	Internal Power Supply 220V AC/48V DC	Internal Power Supply 220V AC/48V DC
	Interface	3 Pin AC Power Socket/2PIN DC Terminal	3 Pin AC Power Socket/2PIN DC Terminal	3 Pin AC Power Socket/2PIN DC Terminal	3 Pin AC Power Socket/2PIN DC Terminal
	Power Consumption	Full Load：＜80W	Full Load：＜80W	Full Load：＜10W	Full Load：＜3W
Operating Environment	Operating Temperature	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)
	Ambient Relative Humidity	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)

Model		FR-6101	FR-6103	FR-6102	FR-6104	FR-6601
						
Properties	Electrical Port	1×10/100BASE-TX，RJ45	1×10/100/1000BASE-TX，RJ45	2×10/100BASE-TX，RJ45	2×10/100/1000BASE-TX，RJ45	1×10GBASE-T RJ45
	Optical Fiber	1×100BASE-FX（SFP/1×9）	1×100BASE-FX（SFP/1×9）	1×100BASE-FX（SFP/1×9）	1×1000BASE-X SFP	1×10G SFP+ Slot
	MAC Table Size	1K	1K	1K	1K	2K
	Jumbo Frame	2046 Bytes	2046 Bytes	2046 Bytes	2046 Bytes	10K Bytes
Physical Characteristics	Dimensions	120×90×22 mm	120×90×22 mm	120×90×22 mm	120×90×22 mm	120×90×22 mm
	Weight	150g	150g	150g	150g	200g
	Housing	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
	Installation	Desktop/Chassis	Desktop/Chassis	Desktop/Chassis	Desktop/Chassis	Desktop/Chassis
Power Supply	Input	5V-1A	5V-1A	5V-1.5A	5V-1.5A	5V-2A
	Interface	PCI	PCI	PCI	PCI	PCI
	Power Consumption	Full Load：＜2W	Full Load：＜3W	Full Load：＜3W	Full Load：＜3W	Full Load：＜5W
Operating Environment	Operating Temperature	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)
	Ambient Relative Humidity	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)
Additional Features	DIP Switch	LFP Mode FX Speed Set	—	—	—	—

Model		FR-6201	FR-6202	FR-6603	FR-6604	FR-6606
						
Properties	Rate	125M～2.5Gbps	125M～4.25Gbps	10Gbps	8.5G～10Gbps	40Gbps
	Optical	2× SFP	2×SFP	2×XFP	2×SFP+	2×QSFP
	MAC Table Size	—	—	—	—	—
	Tranmission Mode	Cut-through	Cut-through	Cut-through	Cut-through	Cut-through
Physical Characteristics	Dimensions	120×90×22 mm	120×90×22 mm	120×90×22 mm	120×90×22 mm	120×90×22 mm
	Weight	150g	150g	150g	150g	180g
	Housing	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
	Installation	Desktop/Chassis	Desktop/Chassis	Desktop/Chassis	Desktop/Chassis	Desktop/Chassis
Power Supply	Input	5V-1A	5V-1A	5V-1.5A	5V-1.5A	5V-2A
	Interface	PCI	PCI	PCI	PCI	PCI
	Power Consumption	Full Load：＜5W	Full Load：＜5W	Full Load：＜7W	Full Load：＜7W	Full Load：＜7W
Operating Environment	Operating Temperature	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)	0 to 65℃(32 to 149℉)
	Ambient Relative Humidity	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)	5 to 90%(non-condensing)
Additional Features	DIP Switch	—	FX Speed Set Loopback	—	FX Speed Set Loopback	Loopback

VIDEO SURVEILLANCE SMART BOX

Video surveillance smart box is a highly integrated Internet of things product launched by our company. The product adopts modularization, integration, backplane card design, flexible wiring mode of equipment, few wiring nodes, concise, standardized and other characteristics. It has been widely used in more than ten sizeable urban monitoring systems.

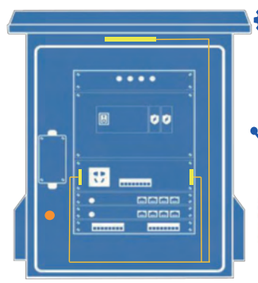
Intelligent digital transmission box

Wiring
There are few cable interfaces in the equipment box, and the wiring is standardized. Clean and tidy interior and reduce failure nodes.

High-integration
Unified equipment procurement reduces the negotiation time of multiple types of equipment procured in the box to avoid shirking responsibility after problems.

Automation
An automatic temperature control system provides a different working environment for the regular operation of equipment.

Interior Structure



Modularization
The power module and the information collectionfault diagnosis network transmission module are configured according to the industrial standard to ensure the stability and reliability of the equipment

Connectionless
The connection between modules is through the motherboard circuit, which reduces the number of failures caused by the ageing of the connection point exposed in the air during the connection between devices.

Scalable
Modular design, establishing a front-end device access platform, for the later system upgrade to reduce investment (such as WIFI hotspot, one-button alarm, etc.)

Modular design, establishing a front-end device access platform, for the later system upgrade to reduce investment (such as WIFI hotspot, one-button alarm, etc.)

Intelligent operation and maintenance management platform

VIDEO MONITORING INTELLIGENT OPERATION AND MAINTENANCE MANAGEMENT PLATFORM

Intelligent operations management platform equipped to manage intelligent video monitoring equipment boxes, cameras and related equipment, video monitoring system and the system used in a variety of equipment running status and alarm information and fault information system - pipe buried, operation monitoring, alarm management, data query, order processing, statistical analysis software platform, rights

Web Front-end

Web Back-end

APP

E Series Smart Box

- Modular integrated design
- Supports a maximum of nine remote independent power outputs;
- The power output supports overcurrent and short circuit protection;
- Power output and network port integrated lightning protection;
- Supports 4x10/100Base-Tx RJ45，1x100M FC optical port;
- Support to monitor network port working mode, rate, traffic and other functions;
- Monitors the wavelength, rate, transmitting power, receiving power, temperature, and electricity of the optical module in real time;
- Support real-time monitoring of equipment temperature, voltage, power detection, door status,network status, fan status and other parameters; Supports Web visit view and management;
- The smart box and switch block are managed by the same IP address;
Supports real-time status information of the smart device box on the front end
- Protection grade: >IP55;
- Operating Temperature -20 to 75℃
- Operating voltage：AC100V-AC 240V

F Series Smart Box

- Supports a maximum of nine remote independent power outputs;
- The power output supports overcurrent and short circuit protection;
- Power output and network port integrated lightning protection;
- Supports 8x10/100/1000Base-Tx RJ45，2x1000M SFP optical port;
- Support to monitor network port working mode, rate, traffic and other functions;
- Monitors the wavelength, rate, transmitting power, receiving power, temperature, and electricity of the optical module in real time;
- Smart boxes and switch modules use the same IP address for management
- Supports POE, enabling and disabling network ports, port rate setting, port 802.3x flow control, port name modification, frame statistics, and port mirroring ;
- Supports ITUG.8032 ERPS Ring Protocol，self-healing time is less than 20ms;
- Support the function of checking real-time status information of smart device box through mobile phone in the front end.
- The smart box and switch block are managed by the same IP address;
- Protection grade: >IP55;
- Operating Temperature -20 to 75℃
- Operating voltage：AC100V-AC240V;

K Series Smart Box

- Modular card structure design, each board card can be mixed and inserted, management platform can automatically identify card slot ;
- Support a maximum of 20 remote power output, each group of load output with current and energy detection function;
- Supports 16x10/100/1000Base-TxRJ45,8x1000MSFP;
- Supports 8x10/100/1000Base-TxRJ45,2x1000MSFP;
- Support separate calculation and presentation of electricity consumption report according to power supply output, support monthly, quarterly, and annual statistics and total statistics of electricity consumption;
- Monitors the wavelength, rate, transmitting power, receiving power, temperature, and electricity of the optical module in real-time ;
- Support real-time monitoring of equipment temperature, voltage, power detection, door status, network status, fan status and other parameters;Supports Web visit view and management
- The smart box and switch block are managed by the same IP address
- Supports POE, enabling and disabling network ports, port rate setting, port 802.3x flow control, port name modification, frame statistics, and port mirroring ;
- Supports ITUG.8032 ERPS Ring Protocol，self-healing time is less than 20ms; Supports IEEE 802.1Q VLAN、QINQ;
- Protection grade: >IP55;
- Operating Temperature: -20℃-75℃;
- Operating voltage: AC100V-AC240V;

H Series Smart Box

- Modular integrated design
- Supports a maximum of four remote independent power outputs;
- Integrated lightning protection device for power output port and network port
- Supports 4x10/100Base-Tx RJ45 , 1x100M FC port;
- Support real-time monitoring of equipment temperature, voltage, electric egg detection, box door status, network status, network port flow rate, fan status and other parameters; support Web access to view and manage.
- Support the function of checking real-time status information of smart device box through mobile phone in the front end.
- Smart boxes and switch modules use the same IP address for management
- Protection grade: >IP55;
- Operating Temperature: -20℃-75℃;
- Operating voltage: AC100V-AC240V;