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Netshield Industrial Products

Industrial Ethernet (IE) refers to the use of standard Ethernet protocols with rugged connectors and extended temperature switches in an industrial environment, for automation or process control. Components used in plant process areas must be designed to work in harsh environments of temperature extremes, humidity, and vibration that exceed the ranges for information technology equipment intended for installation in controlled environments.

The use of fiber Ethernet in the IE environment reduces the problems of electrical noise and provides electrical isolation to prevent equipment damage. Some industrial networks emphasized deterministic delivery of transmitted data, whereas Ethernet used collision detection which made transport time for individual data packets difficult to estimate with increasing network traffic.

Typically, industrial use of Ethernet use full-duplex standards and other methods so that collisions do not unacceptably influence transmission times. Industrial Fiber Optical networking, Serial Device Networking and Communication, Industrial Ethernet, Video fiber transmission and networking products, Industrial Wireless networking.

Industrial Ethernet products

Media converters, switches, Profibus, Modbus, Modbus Plus, ControlNet, DeviceNet, Data Highway Plus, RS-485, Genius, Remote I/O, RS232/484, Reliance R-Net, Analog: 4-20mA, 0-10V

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Unmanaged Industrial Fast Ethernet 5 port Switch (100M).



Features:

- Support 802.3/802.3u/802.3x/802.3d, store-and-forward switching;
- Broadcast storm control;
- Auto (10M/100M), auto Full/Half Duplex, auto MDI/MDI-X
- Wall or DIN rail mounting;
- IP40 protection;
- Dual power input 12~48V DC ;
- Low power consumption<3.5W;
- Operating temperature:-40~85°C

Options Industrial Fast Ethernet 5 port Switch (100M).

- 1 x RJ45 + 1Fiber port
- 2 x RJ45 + 1Fiber ports
- 3 x RJ45 + 2Fiber ports
- 4 x RJ45 + 1Fiber ports
- 5 x RJ45 ports

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Unmanaged Configurable Industrial Fast Ethernet 5 port Switch (100M).



Features:

- DIP Switch configure the speed, duplex mode, VLAN
- Support 802.3/802.3u/802.3x/802.3d, store-and-forward switching;
- Broadcast storm control;
- Auto (10M/100M), auto Full/Half Duplex, auto MDI/MDI-X
- Wall or DIN rail mounting;
- IP40 protection;
- Dual power input 12~48V DC ;
- Low power consumption<3.5W;
- Operating temperature:-40~85°C

Options Configurable Industrial Fast Ethernet 5 port Switch (100M).

- 1 x RJ45 + 1Fiber port
- 2 x RJ45 + 1Fiber ports
- 3 x RJ45 + 2Fiber ports
- 4 x RJ45 + 1Fiber ports
- 5 x RJ45 ports

Unmanaged Industrial Gigabit Ethernet 5 port Switch (1000M).



Features:

- Support 802.3/802.3u/802.3x/802.3d, store-and-forward switching
- Broadcast storm control;
- Auto (10M/100/1000M), auto Full/Half
- Duplex, auto MDI/MDI-X;
- Wall or DIN rail mounting; zIP40 protection;
- Dual power input 12~48V DC;
- Low power consumption<7W;
- Operating temperature:-40~85°C
- Dimensions (L x W x H): 116mmx89mmx53mm

Options Industrial Gigabit Ethernet 5 port Switch (1000M).

- 1 x RJ45 + 1Fiber port
- 2 x RJ45 + 1Fiber ports
- 4 x RJ45 + 2Fiber ports
- 5 x RJ45 + 1Fiber ports
- 5 x RJ45 ports

Unmanaged Industrial Fast Ethernet 8 port Switch (100M).



Features:

- Support 802.3/802.3u/802.3x/802.3d, store-and-forward switching
- Broadcast storm control
- Auto (10M/100M), auto Full/Half Duplex, auto MDI/MDI-X
- Wall or DIN rail mounting
- IP40 protection.
- Dual power input 12~48V DC
- Low power consumption<10W
- Operating temperature:-40~85°C

Options: Industrial Fast Ethernet 8 port Switch (100M).

- 4 x RJ45 + 4Fiber port
- 6 x RJ45 + 2Fiber ports
- 7 x RJ45 + 1Fiber port
- 8 x RJ45 ports

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Unmanaged Industrial Fast/Gigabit Ethernet Switch 10 ports (100M+1000M).



Features:

- Support 802.3/802.3u/802.3x/802.3d, store-and-forward switching
- Broadcast storm control
- Auto (10M/100M), auto Full/Half Duplex, auto MDI/MDI-X
- 2 x SFP Gigabit slots available
- Wall or DIN rail mounting
- IP40 protection.
- Dual power input 12~48V DC
- Low power consumption<10W
- Operating temperature:-40~85°C

Options: Industrial Fast/Gigabit Ethernet Switch 10 ports (100M+1000M).

- 8 x 100M with 2 x 1G slots
- 4 x RJ45 + 4Fiber +2 x 1G SFP
- 6 x RJ45 + 2Fiber + 2 x 1G SFP
- 7 x RJ45 + 1Fiber + 2 x 1G SFP
- 8 x RJ45 + 2 x 1G SFP

Managed Industrial Fast Ethernet 8 port Switch (100M).



Features:

- 8 ports 100M fiber/RJ45 managed Ethernet switch combined Ethernet
- Web, CLI and SNMP support
- QoS, IGMP, 802.1Q VLAN
- RSTP and CK-ring for network redundancy, recovery time < 20ms
- Warning by relay output for power, ports and network status
- IP40 protection, EMC industrial level 4.
- Wide range voltage redundant dual inputs, full-load power consumption < 10W
- DIN-Rail and Wall Mounting.
- Operating temperature:-40~85°C

Options: Managed Industrial Fast Ethernet 8 port Switch (100M).

- 4 x RJ45 + 4Fiber port
- 6 x RJ45 + 2Fiber ports
- 7 x RJ45 + 1Fiber port
- 8 x RJ45 ports

Netshield Industrial Products

Managed Industrial Fast/Gigabit Ethernet Switch 10 ports (100M+1000M).



Features:

- 10 ports 100M/1000M combined managed Ethernet switch
- Web, CLI and SNMP support
- QoS, IGMP, 802.1Q VLAN.
- RSTP and CK-ring for network redundancy, recovery time < 20ms
- Warning by relay output for power, ports and network status
- IP40 protection, EMC industrial level 4.
- Wide range voltage redundant dual inputs, full-load power consumption < 10W
- DIN-Rail and Wall Mounting
- Operating temperature:-40~85°C

Options: Managed Industrial Fast/Gigabit Ethernet Switch 10 ports (100M+1000M).

- 8 x 100M with 2 x 1G slots
- 4 x RJ45 + 4Fiber +2 x 1G SFP
- 6 x RJ45 + 2Fiber + 2 x 1G SFP
- 7 x RJ45 + 1Fiber + 2 x 1G SFP
- 8 x RJ45 + 2 x 1G SFP

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Unmanaged Industrial Fast/Gigabit Ethernet 8 or 4 port Switch with POE.



Features:

- Support 802.3/802.3u/802.3x/802.3d, store-and-forward switching
- Broadcast storm control
- Auto(10M/100M), auto Full/Half Duplex, auto MDI/MDI-X
- Wall or DIN rail mounting
- IP40 protection
- Dual power input 46~52V DC
- Full load power consumption 145W
- Operating temperature:-40~60°C
- IEEE 802.3at/af standard.
- PoE 15.4W or PoE+ 30W per port, Max fully populated load < 120W.

Options: Unmanaged Industrial Fast/Gigabit Ethernet 8 or 4 port Switch with POE.

- 8 ports 100M(2 x 1G SFP optional)
- 4 x RJ45 + 4Fiber ports
- 6 x RJ45 + 2Fiber ports
- 8 RJ45 ports
- 4 or 8 POE port available

Netshield Industrial Products

Managed Industrial Fast/Gigabit Ethernet 8 or 4 port Switch with POE.



Features:

- 10 ports 100M/1000M combined managed Ethernet switch
- Web, CLI and SNMP support
- QoS, IGMP, 802.1Q VLAN
- RSTP and CK-ring for network redundancy, recovery time < 20ms
- Warning by relay output for power, ports and network status
- IP40 protection, EMC industrial level 4
- Support 802.3/802.3u/802.3x/802.3d, store-and-forward switching
- Broadcast storm control
- Auto(10M/100M), auto Full/Half Duplex, auto MDI/MDI-X
- Wall or DIN rail mounting
- IP40 protection
- Dual power input 46~52V DC
- Full load power consumption 145W
- Operating temperature:-40~60°C
- IEEE 802.3at/af standard
- PoE 15.4W or PoE+ 30W per port, Max fully populated load < 120W.

Options: Managed Industrial Fast/Gigabit Ethernet 8 or 4 port Switch with POE.

- 8 ports 100M(2 x 1G SFP optional)
- 4 x RJ45 + 4Fiber ports
- 6 x RJ45 + 2Fiber ports
- 8 RJ45 ports
- 4 or 8 POE port available.

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Specialized and combination industrial switches.

Managed Industrial Fast/Gigabit Ethernet 10 port Switch with additional 4 serial ports



Features:

- 10 ports 100M/1000M and 4 x RS232/485/422 combined managed Ethernet switch
- Web, CLI and SNMP support
- QoS, IGMP, 802.1Q VLAN
- RSTP and CK-ring for network redundancy, recovery time < 20ms
- Warning by relay output for power, ports and network status
- IP40 protection, EMC industrial level 4.
- Wide range voltage redundant dual inputs, full-load power consumption < 10W
- DIN-Rail and Wall Mounting
- Operating temperature:-40~85°C
- 4 x RS232, 2RS232 and 2 x RS485, 4x RS485 optional
- Serial to Ethernet server integrated with 10 ports switch.

Options Managed Industrial Fast/Gigabit Ethernet 10 port Switch with additional 4 serial ports

- 8 x 100M with 2 x 1G slots
- 4 x RJ45 + 4Fiber + / 2 x 1G SFP
- 6 x RJ45 + 2Fiber + / 2 x 1G SFP
- 7 x RJ45 + 1Fiber + / 2 x 1G SFP
- 8 x RJ45 + / 2 x 1G SFP

Rack mountable industrial switches.

Managed and **Unmanaged Industrial Ethernet rack mount 24GE/FE+4GE port Switch.**



This System-on-a-Chip switch family offers industry-leading integration and performance in 1U fan less rack mountable format. The device offers up to 24 multilayer Gigabit Ethernet (GbE) ports and a maximum of four integrated 1G and 10G SerDes transceivers, respectively, in a small package. Offering the industry's highest level of integration, the units have embedded 16 GbE (Physical Layers) PHYs and a powerful 400 MHz ARM® Cortex™-A9 processor and are ideal for cost-sensitive edge connectivity applications, such as WebSmart switches for small to medium businesses (SMB).

The switch device family offers I/O configurations that address key segments of edge connectivity. To reduce the overall system cost, the device is engineered for low-power operation to enable up to 24 x GbE + 4x 10GbE (or 13G stacking) designs. Furthermore, the device I/O is optimized for simplified board layout.

Systems Features:

- Standard 1U rack type, Fan less designed
- Integrated high-performance Cortex-A9 processor
- Highly integrated 24-port 10/100/1000 Mbps Ethernet switch SoC
- Embedded 16 integrated copper 10/100/1000 EEE PHYs
- Two integrated QSGMII/1GbE interfaces
- Non-blocking architecture, full wirespeed performance for 24x GbE and 48x GbE systems
- Fully integrated 1.5-MB packet buffer
- Includes up to four GbE or two GbE + two HiGig-Duo™ cascade ports for non-blocking 48-port design
- Includes up to four XFI/SFI uplink/stacking ports or two XFI + two HiGig-Duo™ cascade ports
- Broadcom 53344+B50285PHYz
- Fixed 16 x 10/100/1000M RJ45 ports
- Fixed 4 x 1000M SFP ports
- Pluggable Module:
 - Max 8 x 100M fiber ports, SC/FC/ST
 - optional
 - 9 Max 8x 1000M fiber ports (SFP)

Options: Managed and Unmanaged Industrial Ethernet rack mount 24GE/FE+4GE port Switch.

- 24FE+4GE managed and unmanaged
- 24GE+4GE managed
- AC220V/110V dual or DC48V dual power supply

Managed and Unmanaged Industrial Ethernet rack mount 24GE/FE+4GE 1588 port Switch.

System design

- Standard 1U rack type, Fan-less design
- 1588 function
- Support light 3 layer protocol
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Item available:

- 24 x RJ45 + 4GE SFP
- 16 x RJ45 + 8 fiber ports + 4GE SFP
- AC220V/110V dual or DC48V dual power supply

24/48 ports 3 layers Industrial Ethernet Switch Rack-mounted



System design

- Standard 1U rack type, Fan-less designed
- 3 layers protocol function
- 24 or 48 x GE+ 4 x 10GE SFP+
- Chip solution undetermined

Item available:

- 24 x GE SFP + 4 x 10GE SFP+
- 48 x GE SFP + 4 x 10GE SFP+
- AC220V/110V dual or DC48V dual power supply

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