3onedata

2021 Product Selection Guide

Professional Industrial Communication Equipment & Solution Provider

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Focus on Industrial Internet & Construct Intelligent Network Platform

Contents

About 3onedata

Founded in 2001, 3onedata has been dedicated in industrial communication field for over 20 years. We are a National High-tech Enterprise integrating with R&D, manufacturing, marketing and service so as to provide complete business support to our worldwide partners and customers. Until now we have won the certificates of ISO9001 Quality Management, ISO14000 Environmental Management and OHSAS18001 Occupational Health and Safety Assessment. Through independent R&D & innovation 3onedata has developed self-owed software and launched thousands of products with four main product lines - Industrial Ethernet Switch, Device Networking Product, Embedded Industrial Ethernet Module and Industrial Wireless Networking Product, which have been widely used in industries of Smart Grid, Rail Transit, Security, Automation Manufacturing and so on.

Value

Honor Quality Service

Vision

To be a world-class equipment and solution provider in industrial communication

Mission

Focus on industrial network, provide excellent solution and service, and create values and development opportunities for customers, partners and employees

Industry Application

Smart City

- Video Surveillance
- Electronic Police
- Tunnel Monitoring
- Traffic Signal Control
- Intelligent Public Transportation

Smart Grid

- Power Distribution
- Power Transformation
- Power Generation
- Power Transmission
- Power Utilization

Rail Transit

- PIS
- AFC
- ISCS
- CCTV
- 6C System

Intelligent Manufacturing

- Air Purification
- Motion Control
- Energy Monitoring
- Water Treatment
- Fire Monitoring

Part of Clients

Key Technologies

MRP

Media Redundancy Protocol (MRP) is a data network protocol standardized for ring redundancy in industrial environment by the International Electrotechnical Commission as IEC 62439-2. MRP is compatible with redundant ring coupling, supports VLAN, and is distinguished by very short reconfiguration times. In the fault-free state of the network, this protocol provides reliable data communication, and preserves determinism of real-time data communication. In cases of fault, removal, and insertion of a component, it provides deterministic recovery times.

Jumbo Frame

In computer networking, jumbo frames are Ethernet frames with more than 1500 bytes of payload. 3onedata Gigabit Ethernet switches, with 10 times the bandwidth of 1000Base-T Ethernet switches, feature Jumbo frame support, which enables Jumbo Frame is useful for transmitting mega-pixel IP surveillance videos since the CPU have fewer frames to process as a larger payload is put into each frame. This will increase data transmission efficiency, thereby improving network performance.

SW-Ring

SW-Ring is 3onedata's self-developed redundant ring network protocol, the design philosophy follows general international standards STP and RSTP, and has been optimized for industrial control applications. It adopts non-master-station redundant architecture, there is no master-slave difference between networking devices, networking configuration is simpler. When a link failed, the field device will switch the link of the whole network, other devices will not be involved in the algorithmic dispatching. This kind of redundant network is more stable and has faster recovery time in link failure, the recovery time is less than 20ms.

Optical /Copper Port Bypass

Optical or copper port bypass function is a hardware redundant technology that usually used in the application that need high reliable data transmission like industrial control network.The bypass switch removes this point of failure(power down) and automatically switching traffic via bypass module to keep the critical network link up. The bypass module are relay(copper port) and photoswitch (fiber port).

Port DHCP

Typically applied to industrial field, switch can work as a DHCP server based on port, by which you can specify the IP address of terminal devices to realize communication as well as reduce the maintenance cost.

Wi-Fi Positioning

Wi-Fi positioning system is a geolocation system that uses the characteristics of nearby Wi-Fi hotspots and other wireless access points to discover where a device is located. With this system, we can know staffs' position and traces timely.

Link Detection

Link detection can automatically shut down the link with fault, make real-time statistics of port data type, and solve the problem of false packet in the port.

Seamless Roaming

Wi-Fi roaming function provides a permanent connection to the Wi-Fi network of mobile users (smartphones, tablets, notebooks) during their movement within the coverage area created by several autonomous access points. When moving within the coverage area, mobile clients independently select the most suitable access point depending on the signal level, network load and other factors. Seamless Roaming function can minimum the delay time in milliseconds in case data packet loss in that switching process between different AP.

Certificates

GB3836

IEC61850

IEC60529

IEC61000

EN50155

EN50121

EN45545

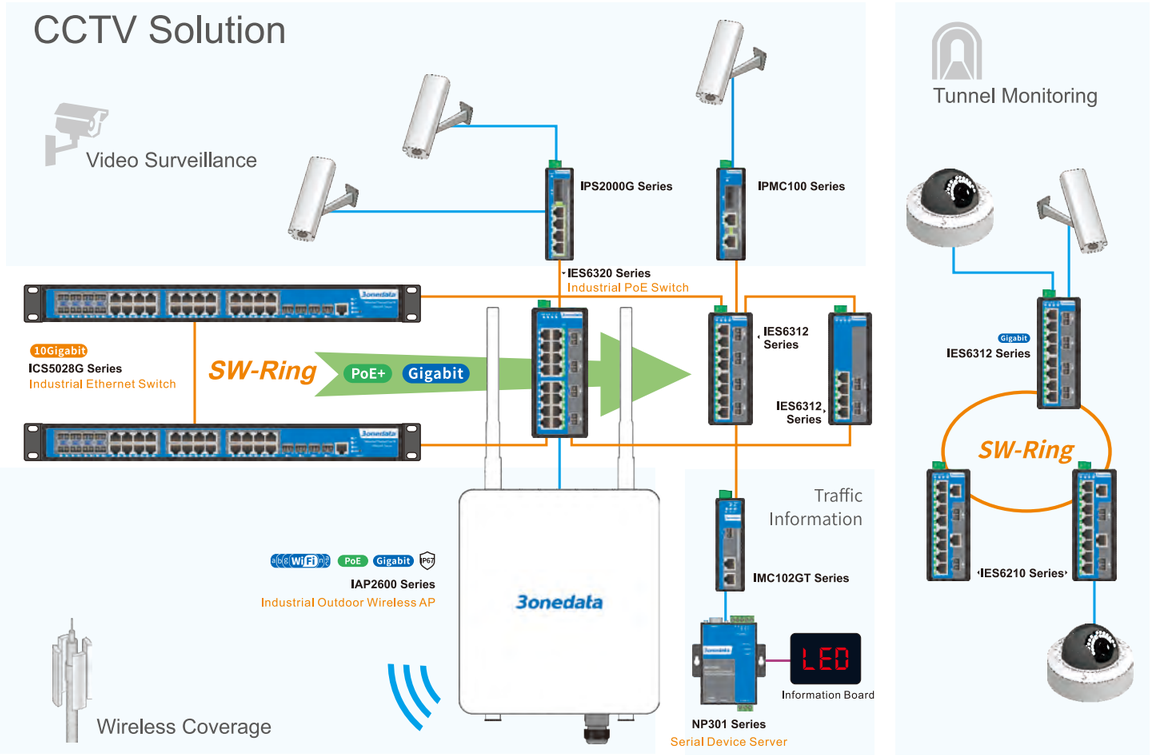
EN62443

ISO 9001

ISO 14001

ISO 18001

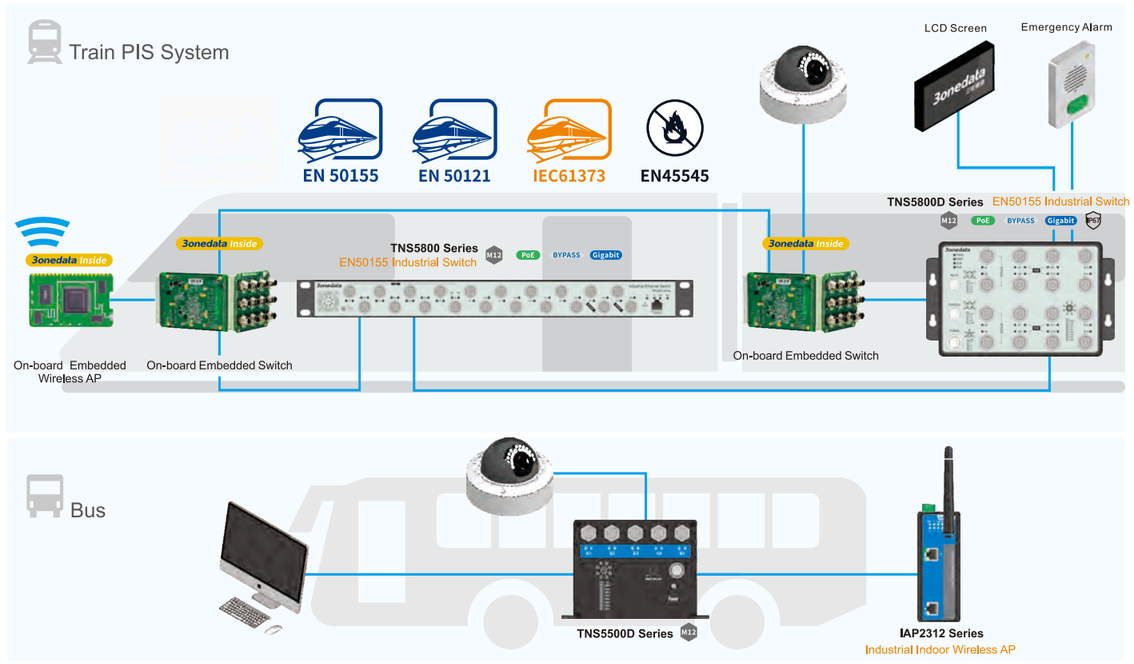
CCTV Solution



Classical Cases

- Intelligent Toll-gate System on Hong Kong-Zhuhai-Macao Bridge
- Traffic Off-site Enforcement Systems in Shanghai Pudong New Area
- Songjiang Public Security Bureau Traffic Violation Snapping System in Shanghai
- New Electronic Police System in Guangzhou
- Rock am Ring Concert Fire Warning System in Frankfurt, Germany
- Dublin Airport Security Perimeter System in Germany
- OAKLANDS Business Center Monitoring in Worthing, UK
- Expressway Lighting Communication in Hanoi, Vietnam
- Akdeniz University Video Surveillance in Turkey

Rail Transit Solution



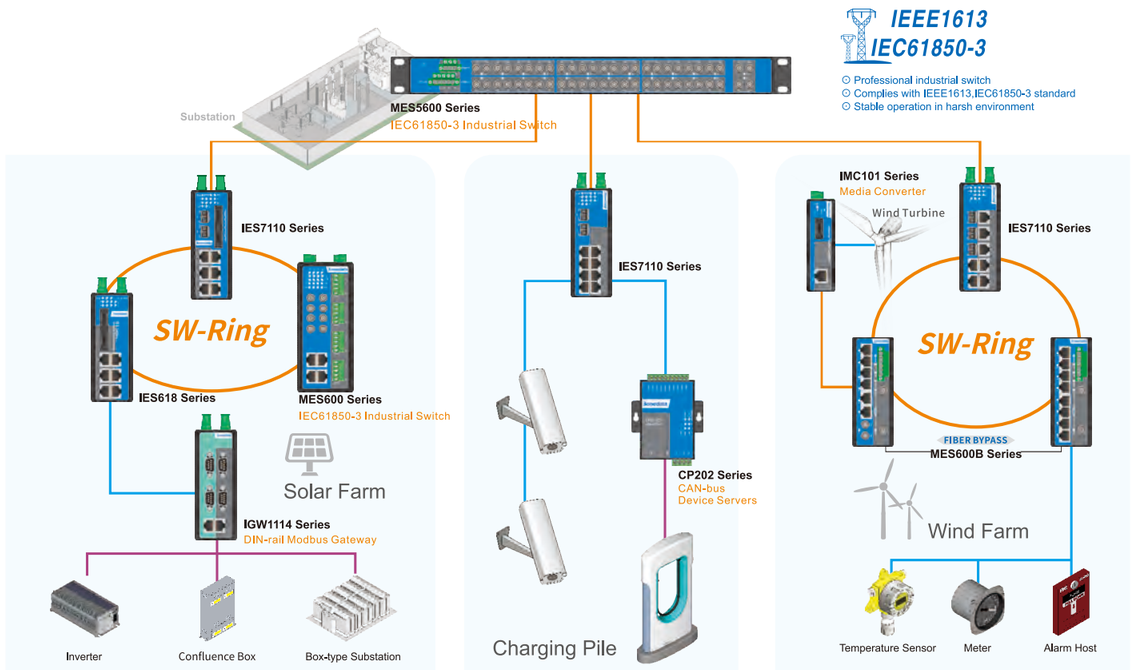
Classical Cases

- PIS on Beljing Subway Line 15 and Fangshan Line
- PIS on Shanghai Subway Line 2, 3, 4, 8, 17
- Fiber Emergency Broadcasting System on Shanghai Subway Line 12
- PIS on Guangzhou Subway Line 2, 8, 13, 14
- Communication Transmission System on Guangzhou Subway Line 1
- Cab CCTV Surveillance System on Guangzhou Subway Line 4, 5
- Cab CCTV Surveillance System on Beljing Subway Line 1, 4, Batong Line and Daxing Line
- PIS on Shenzhen Subway Line 3, 5, 7, 9
- Fire Detection System on Shenzhen Subway Line 5
- Cab CCTV Surveillance System on Mumbai Subway Line 1
- Cab CCTV Surveillance System on Hongkong LRV4 Subway
- Cab PIS on Turkey Subway
- CCTV Surveillance System in Turkey Subway Station
- Cab PIS on Thailand Tourist Train

Smart Grid Solution

Intelligent Manufacturing Solution

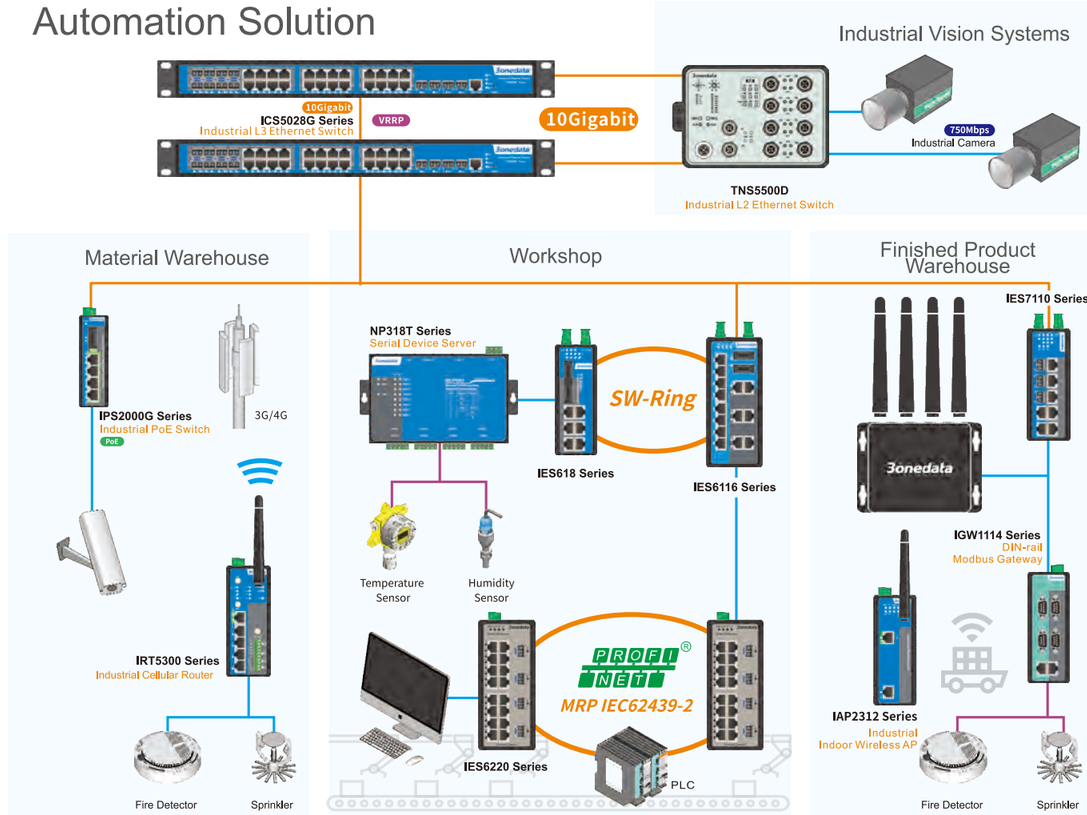
New Energy Solution



Classical Cases

- Charging Station Project of 2008 Beijing Olympic Games
- Charging Station Project of 2010 Guangzhou Asian Games
- Charging Station Project of 2010 Shanghai World Expo
- Hami Wind Power Base Monitoring System in Xinjiang
- KRONG H'NANG Monitoring System in Vietnam
- Shenzhen Electricity Board Power Transmission Line Renovation On-line Monitoring System
- Canal Scheduling System in Kazakhstan
- TEBA 87MW Integrated Photovoltaic Automation in Thailand
- DC Transmission System in the UK
- Solar SCADA System in Chennai, India

Automation Solution



Classical Cases

- Coal Mine Safety Monitoring System for Shanghai DaTunCoal Electricity Company
- Shanxi Datong Coal Mine Coal Mine Safety Monitoring System
- Shanxi Jincheng Coal Mine Coal Mine Safety Monitoring System
- Guangzhou Deep Tunnel Drainage System
- Inner Mongolia Opencast Coal Mine Monitoring Syatem
- ZTE Coal Mine Automation Syatem
- Factory Automation Project in Norway
- Automatic Sorting System in Denmark

Managed Rack-mounted Industrial Ethernet Switch

	ICS5028G Series	IES5028G Series	IES5028-4GS Series	IES5024 Series
Port				
10 Gigabit Ethernet	4	/	/	/
Gigabit Ethernet, 10/100/1000Mbps	16+8 Combo	16+8 Combo	/	/
Gigabit Fiber Ethernet, 1000Mbps	/	4	4	/
Fast Ethernet, 10/100Mbps	/	/	24	24
Console	√	√	√	√
Alarm	√	√	√	√
Exchange Attribute				
100M forward speed	/	/	148810pps	148810pps
1000M forward speed	1488100pps	1488100pps	1488100pps	1488100pps
10000M forward speed	14881000pps	/	/	/
Transmit Mode	store and forward	store and forward	store and forward	store and forward
Switching Fabric Capacity	128G	56G	12.8G	12.8G
Memory	12M	12M	3M	3M
MAC address table	16K	16K	8K	8K
Power Supply				
Input Voltage	100 ~ 240VAC/DC/48VDC			
Power redundancy	dual power supply	dual power supply	single/dual power supply	single/dual power supply
Power Connector	terminal block	terminal block	terminal block	terminal block
Working Environment				
Working temperature	-40~75°C	-40~75°C	-40~75°C	-40~75°C
Storage temperature	-40~85°C	-40~85°C	-40~85°C	-40~85°C
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)
Network Management and Control				
Layer 3 Switching (Static routing,VRRP, RIPv1/v2,RIPng,OSPFv2/v3,BGP...)	√	/	/	/
IPv6	√	/	/	/
IGMP Snooping/GMRP	√	√	√	√
SNMP	√	√	√	√
STP/RSTP	√	√	√	√
RMON	√	√	/	/
MSTP	√	√	/	/
Port Trunking，Port Mirroring	√	√	√	√
SW-Ring	√	√	√	√
QOS	√	√	√	√
LLDP	√	√	/	/
VLAN，Relay Warning	√	√	√	√
IEEE 802.1X，SNTP	√	√	/	/
Dimensions				
Size (W*H*D)	440*285*43 (mm)	440*285*43 (mm)	441.6*208.9*45 (mm)	441.6*208.9*45 (mm)

Managed DIN-rail Industrial Ethernet Switch

	ICS6424 Series	IES6220	IES6300 Series	IES6312 Series	IES6310	IES6210
Port						
10G Gigabit Ethernet	4	/	/	/	/	/
Gigabit Ethernet, 10/100/1000Mbps	16+8 Combo	/	4/8	8	4/8	2 Combo
Gigabit Fiber Ethernet, 1000Mbps	/	4 SFP	2*2.5G+2*1 Gigabit	4	2 2.5G SFP	/
Fast Ethernet, 10/100Mbps	/	16	/	/	/	4/8
100Mbps Fiber(SC/ST/FC)	/	/	/	/	/	/
Console	√	√	√	√	√	√
Alarm	√	√	√	√	√	√
Exchange Attribute						
100M Forward Speed	/	14810pps	14810pps	/	/	14810pps
1000M Forward Speed	148100pps	148100pps	148100pps	1488100pps	148100pps	148100pps
10000M Forward Speed	1481000pps	/	/	/	/	/
Transmit Mode	store and forward	store and forward	store and forward	store and forward	store and forward	store and forward
Switching Fabric Capacity	128G	12.8G	26G	24G	26G	7.6G
Memory	12M	3M	4M	4M	4M	1M
MAC Address Table	16K	8K	8K	8K	8K	8K
Power Supply						
Input Voltage	24VDC(12~48VDC)	12~48VDC 85~264VAC	100~240VAC 12~48VDC	100~230VAC 12~48VDC	12~48VDC 220VAC	12~48VDC 85~264VAC
Power Redundancy	dual power supply					
Power Connector	terminal block					
Working Environment						
Working Temperature	-40~75°C					
Storage Temperature	-40~85°C					
Relative Humidity	5%~95% (no condensation)					
Network Management and Control						
IGMP Snooping	√	√	√	√	√	√
SNMP	√	√	√	√	√	√
STP/RSTP	√	√	√	√	√	√
Port Trunking	√	√	√	√	√	√
SW-Ring	√	√	√	√	√	√
VLAN	√	√	√	√	√	√
QOS	√	√	√	√	√	√
Port Mirroring	√	√	√	√	√	√
Relay Warning	√	√	√	√	√	√
Dimensions						
Size (W*H*D)	70*160*130 (mm)	70*160*130 (mm)	53*138*110 (mm)	53*138*110 (mm)	53*138*110 (mm)	53*138*110 (mm)

Managed DIN-rail Industrial Ethernet Switch

				
	IES7120G	IES7116G-8GS	IES7120-4GS Series	IES716-2GS
Port				
Gigabit Ethernet, 10/100/1000Mbps	16	8	/	/
Gigabit Fiber Ethernet, 1000Mbps	/	8	4	2
Fast Ethernet, 10/100Mbps	4	/	16	4
100Mbps Fiber(SC/ST/FC)	/	/	√	√
Console	√	√	√	√
Alarm	√	√	/	/
Exchange Attribute				
100M Forward Speed	/	/	148810pps	14810pps
1000M Forward Speed	1488100pps	1488100pps	1488100pps	148100pps
Transmit Mode	store and forward	store and forward	store and forward	store and forward
Switching Fabric Capacity	56G	52G	12.8G	7.6G
Memory	12M	4M	3M	1M
MAC Address Table	16K	8K	8K	8K
Power Supply				
Input Voltage	24VDC(12-48VDC)	24VDC(12-48VDC)	24VDC(12~48VDC)	24VDC(12~48VDC)
Power Redundancy	dual power supply			
Power Connector	terminal block			
Working Environment				
Working Temperature	-40~75℃			
Storage Temperature	-40~85℃			
Relative Humidity	5%~95% (no condensation)			
Network Management and Control				
IGMP Snooping	√	√	√	√
SNMP	√	√	√	√
STP/RSTP	√	√	√	√
Port Trunking	√	√	√	√
SW-Ring	√	√	√	√
VLAN	√	√	√	√
QOS	√	√	√	√
Port Mirroring	√	√	√	√
Relay Warning	√	√	√	√
Dimensions				
Size (W*H*D)	70*160*130 (mm)	70*160*130 (mm)	70*160*130 (mm)	53*138*110 (mm)

Managed DIN-rail Industrial Ethernet Switch

			
	IES7110-3G Series	IES7110-2G(GS/GC) Series	IES6116 Series
Port			
Gigabit Ethernet, 10/100/1000Mbps	/	2	/
Gigabit Fiber Ethernet, 1000Mbps	3		
Fast Ethernet, 10/100Mbps	7	8	16
Console	√	√	√
Alarm	√	√	√
RS-232/485	/	/	/
Exchange Attribute			
100M Forward Speed	148810pps	148810pps	148810pps
1000M Forward Speed	1488100pps	1488100pps	/
Transmit Mode	store and forward	store and forward	store and forward
Switching Fabric Capacity	7.6G	7.6G	12.8G
Memory	1M	1M	3M
MAC address table	8K	8K	8K
Power Supply			
Input Voltage	24VDC(12~48VDC)	24VDC(12~48VDC)	24VDC(12~48VDC)
Power Redundancy	dual power supply	dual power supply	dual power supply
Power Connector	terminal block	terminal block	terminal block
Working Environment			
Working Temperature	-40~75℃	-40~75℃	-40~75℃
Storage Temperature	-40~85℃	-40~85℃	-40~85℃
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)
Network Management and Control			
IGMP Snooping	√	√	√
SNMP	√	√	√
STP/RSTP	√	√	√
Port Trunking	√	√	√
SW-Ring	√	√	√
VLAN	√	√	√
QOS	√	√	√
Port Mirroring	√	√	√
Relay Warning	√	√	√
Dimensions			
Size (W*H*D)	53*138*110 (mm)	53*138*110/70*160*130 (mm)	70*160*130 (mm)

Managed DIN-rail Industrial Ethernet Switch



	IES618 Series	IES618-4D Series	IES615-2D Series
Port			
Gigabit Ethernet, 10/100/1000Mbps	/	/	/
Gigabit Fiber Ethernet, 1000Mbps	/	/	/
Fast Ethernet, 10/100Mbps	8	8	5
Console	√	√	√
Alarm	√	√	√
RS-232/485	/	4	2
Exchange Attribute			
100M forward speed	148810pps	148810pps	148810pps
1000M forward speed	/	/	/
Transmit Mode	store and forward	store and forward	store and forward
Switching Fabric Capacity	2G	2G	1.2G
Memory	1M	1M	0.5M
MAC Address Table	2K	2K	2K
Power Supply			
Input Voltage	24VDC(12~48VDC)	24VDC/100~240VAC/DC	24VDC(12~48VDC)
Power Redundancy	dual power supply	dual power supply	dual power supply
Power Connector	terminal block	terminal block	terminal block
Working Environment			
Working Temperature	-40~75℃	-40~75℃	-40~75℃
Storage Temperature	-40~85℃	-40~85℃	-40~85℃
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)
Network Management and Control			
IGMP Snooping	√	√	√
SNMP	√	√	√
STP/RSTP	√	√	√
Port Trunking	√	√	√
SW-Ring	√	√	√
VLAN	√	√	√
QOS	√	√	√
Port Mirroring	√	√	√
Relay Warning	√	√	√
Dimensions			
Size (W*H*D)	53*138*110 (mm)	70*160*130 (mm)	53*136*105 (mm)

Unmanaged Rack-mounted Industrial Ethernet Switch


	IES1024 Series	IES1028-4GS Series
Port		
Gigabit Ethernet, 10/100/1000Mbps	/	/
Gigabit Fiber Ethernet, 1000Mbps	/	4
Fast Ethernet, 10/100Mbps	24	24
Console	√	/
Alarm	√	/
Exchange Attribute		
100M Forward Speed	1488100pps	1488100pps
1000M Forward Speed	/	1488100pps
Transmit Mode	store and forward	store and forward
Switching Fabric Capacity	12.8G	12.8G
Memory	3M	3M
MAC Address Table	8K	8K
Power Supply		
Input Voltage	100~240VAC/DC	100~240VAC/DC
Power Redundancy	single/dual power supply	single/dual power supply
Power Connector	terminal block	terminal block
Working Environment		
Working Temperature	-40 ~75℃	-40~75℃
Storage Temperature	-40~85℃	-40~85℃
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)
Dimensions		
Size (W*H*D)	441.6*208.9*45 (mm)	441.6*208.9*45 (mm)

Unmanaged DIN-rail Industrial Ethernet Switch




	IES2220	IES2210	IES2310	IES2312
Port				
Gigabit Ethernet, 10/100/1000Mbps	/	/	4/8	8
Gigabit Fiber Ethernet, 1000Mbps	4 SFP	2 SFP	2 2.5G SFP	4
Fast Ethernet, 10/100Mbps	16	8/4	/	/
100Mbps Fiber (SC/ST/FC)	/	/	/	/
Console	√	√	√	√
Alarm	√	√	√	√
Exchange Attribute				
100M Forward Speed	14810pps	14810pps	/	/
1000M Forward Speed	148100pps	148100pps	148100pps	148100pps
Transmit Mode	store and forward	store and forward	store and forward	store and forward
Switching Fabric Capacity	12.8G	7.6G	26G	24G
Memory	3M	1M	4M	4M
MAC Address Table	8K	8K	8K	8K
Power Supply				
Input Voltage	12~48VDC/85~264VAC	12~48VDC/85~264VAC	12~48VDC/220VAC	12~48VDC/100~240VAC
Power Redundancy	dual power supply	dual power supply	dual power supply	dual power supply
Power Connector	terminal block	terminal block	terminal block	terminal block
Working Environment				
Working Temperature	-40°C~75°C	-40°C~75°C	-40°C~75°C	-40°C~75°C
Storage Temperature	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)
Dimensions				
Size (W*H*D)	70*160*130 (mm)	53*138*110 (mm)	53*138*110 (mm)	53*138*110 (mm)

Unmanaged DIN-rail Industrial Ethernet Switch





	IES3020G Series	IES3016G-8GS	IES3012G-4GS	IES3020-4GS Series	IES3016 Series
Port					
Gigabit Ethernet, 10/100/1000Mbps	16	8	8	/	/
Gigabit Fiber Ethernet, 1000Mbps	4/0	8	4	4	/
Fast Ethernet, 10/100Mbps	/	/	/	16	16
Console	√	/	/	/	/
Alarm	√	/	√	√	/
Exchange Attribute					
100M Forward Speed	/	/	148810pps	148810pps	148810pps
1000M Forward Speed	148100pps	1488100pps	1488100pps	1488100pps	/
Transmit Mode	store and forward	store and forward	store and forward	store and forward	store and forward
Switching Fabric Capacity	56G	56G	24G	12.8G	12.8G
Memory	12M	12M	4M	3M	3M
MAC Address Table	16K	16K	8K	8K	8K
Power Supply					
Input Voltage	24VDC(12~48VDC)	12~48VDC	24VDC(12~48VDC)	24VDC(12~48VDC)	24VDC(12~48VDC)
Power Redundancy	dual power supply	dual power supply	dual power supply	dual power supply	dual power supply
Power Connector	terminal block	terminal block	terminal block	terminal block	terminal block
Working Environment					
Working Temperature	-40°C~75°C	-40~75°C	-40~75°C	-40~75°C	-40~75°C
Storage Temperature	-40°C~85°C	-40~85°C	-40~85°C	-40~85°C	-40~85°C
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)
Dimensions					
Size (W*H*D)	70*160*130 (mm)	70*160*130 (mm)	70*160*130 (mm)	70*160*130 (mm)	70*160*130 (mm)

Unmanaged DIN-rail Industrial Ethernet Switch






	IES206G-2GS	IES205G	IES2010-2GS/GF	IES206-2GS/GF	IES215 Series	IES318 Series
Port						
Gigabit Ethernet, 10/100/1000Mbps	4	5	/	/	/	/
Gigabit Fiber Ethernet, 1000Mbps	2	/	2	2	/	/
Fast Ethernet, 10/100Mbps	/	/	8	4	5	8
Console	/	/	2/4	/	/	/
Alarm	/	/	/	/	/	√
Exchange Attribute						
100M Forward Speed	/	/	148810pps	148810pps	148810pps	148810pps
1000M Forward Speed	148100pps	1488100pps	1488100pps	1488100pps	/	1488100pps
Transmit Mode	store and forward	store and forward	store and forward	store and forward	store and forward	store and forward
Switching Fabric Capacity	12G	12G	7.6G	7.6G	1.6G	1.6G
Memory	1M	1M	1M	1M	1M	1M
MAC Address Table	1K	2K	8K	8K	2K	2K
Power Supply						
Input Voltage	24VDC(12~48VDC)	24VDC(12~48VDC)	24VDC or 100~240AC/DC	12 ~ 48VDC	24VDC(12~48VDC)	24VDC(12~48VDC)
Power Redundancy	dual power supply	single power supply	dual power supply	dual power supply	single power supply	dual power supply
Power Connector	terminal block	terminal block	terminal block	terminal block	terminal block	terminal block
Working Environment						
Working Temperature	-40°C~75°C	-40~75°C	-40~75°C	-40~75°C	-40~75°C	-40~75°C
Storage Temperature	-40°C~85°C	-40~85°C	-40~85°C	-40~85°C	-40~85°C	-40~85°C
Relative Humidity	5%~95% (no condensation)					
Dimensions						
Size (W*H*D)	53*138*110 (mm)	53*110*95 (mm)	53*136*105 (mm)	53*136*105 (mm)	35*110*95 (mm)	53*138*110 (mm)

Entry Level Industrial Ethernet Switch





	ES1026-2F	ES1016/ES1024	ES2010G-2GF/GS	ES209G-1GF	ES208G
Port					
Gigabit Ethernet, 10/100/1000Mbps	/	/	8	8	8
Gigabit Fiber Ethernet, 1000Mbps	/	/	2	1	/
Fast Ethernet, 10/100Mbps	26	16 / 24	/	/	/
Console	/	/	/	/	/
Alarm	/	/	/	/	/
Exchange Attribute					
100M Forward Speed	148810pps	148810pps	/	/	/
1000M Forward Speed	/	/	1488100pps	1488100pps	1488100pps
Transmit Mode	store and forward	store and forward	store and forward	store and forward	store and forward
Switching Fabric Capacity	12.8G	12.8G	20G	18G	16G
Memory	2.5M	2.5M	1M	1M	1M
MAC Address Table	8K	8K	8K	8K	8K
Power Supply					
Input Voltage	100~240VAC/DC	100~240VAC/DC	24VDC(12~48VDC)	24VDC(12~48VDC)	24VDC(12~48VDC)
Power Redundancy	single power supply	single power supply	dual power supply	dual power supply	single power supply
Power Connector	terminal block	terminal block	terminal block	terminal block	terminal block
Working Environment					
Working Temperature	-40~70°C	-40~70°C	-40~75°C	-40~75°C	-40~70°C
Storage Temperature	-40~85°C	-40~85°C	-40~85°C	-40~85°C	-40~85°C
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)
Dimensions					
Size (W*H*D)	441.6*44.6*208.9 (mm)	441.6*44.6*208.9 (mm)	50*115*80 (mm)	50*115*80 (mm)	53*138*110 (mm)

Managed Industrial Ethernet PoE Switch





	IES6220 Series	IES6210 Series	IES6300 Series	IES6310 Series	IES6312 Series
Port					
Gigabit Ethernet, 10/100/1000Mbps (Non-PoE)	/	2 Combo	/	/	/
Gigabit Ethernet, 10/100/1000Mbps (PoE)	/	/	4/8	4/8	8
Fast Ethernet, 10/100Mbps (Non-PoE)	0/8	/	/	/	/
Fast Ethernet, 10/100Mbps (PoE)	16/8	8	/	/	/
Gigabit Fiber Ethernet, 1000Mbps	4 SFP	/	2 2.5G+2 Gigabit	2 2.5G+4/8 Gigabit	4
Console	√	√	√	√	√
Alarm	√	√	√	√	√
Exchange Attribute					
100M Forward Speed	14810pps	148810bps	/	/	/
1000M Forward Speed	148100pps	1488100bps	148100pps	148100pps	1488100pps
Transmit Mode	store and forward	store and forward	store and forward	store and forward	store and forward
Switching Fabric Capacity	12.8G	24G	30G	26G	24G
Memory	3M	4M	4M	4M	4M
MAC Address Table	8K	8K	8K	8K	8K
Power Supply					
Input Voltage	24V/48VDC	24VDC(12~48VDC)/220VAC	24VPoE/48VPoE	24VPoE/48VPoE	24VPoE/48VPoE
Power Redundancy	dual power supply	dual power supply	dual power supply	dual power supply	dual power supply
Power Connector	terminal block	terminal block	terminal block	terminal block	terminal block
Working Environment					
Working Temperature	-40°C~75°C	-40~75°C	-40°C~75°C	-40°C~75°C	-40°C~75°C
Storage Temperature	-40°C~85°C	-40~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C
Relative Humidity	5%~95% (no condensation)				
Network Management and Control					
IGMP Snooping/GMRP	√	√	√	√	√
SNMP/RMON	√	√	√	√	√
STP/RSTP	√	√	√	√	√
SW-Ring	√	√	√	√	√
VLAN	√	√	√	√	√
QOS	√	√	√	√	√
Relay Warning	√	√	√	√	√
Dimensions					
Size (W*H*D)	70*160*130 (mm)	53*138*110 (mm)	53*138*110 (mm)	53*138*110 (mm)	53*138*110 (mm)

Unmanaged Industrial Ethernet PoE Switch




	IES2312 Series	IES2310 Series	IES2210 Series	IES2220 Series
Port				
Gigabit Ethernet, 10/100/1000Mbps (Non-PoE)	/	/	2 Combo	/
Gigabit Ethernet, 10/100/1000Mbps (PoE)	8	4/8	/	/
Fast Ethernet, 10/100Mbps (Non-PoE)	/	/	/	0/8
Fast Ethernet, 10/100Mbps (PoE)	/	/	4/8	16/8
Gigabit Fiber Ethernet, 1000Mbps	4	2 2.5G SFP	/	4 SFP
Console	√	√	√	√
Alarm	√	√	√	√
Exchange Attribute				
100M Forward Speed	/	/	14810pps	14810pps
1000M Forward Speed	148100pps	148100pps	148100pps	148100pps
Transmit Mode	store and forward	store and forward	store and forward	store and forward
Switching Fabric Capacity	24G	26G	7.6G	12.8G
Memory	4M	4M	1M	3M
MAC Address Table	8K	8K	8K	8K
Power Supply				
Input Voltage	24VPoE/48VPoE	24VPoE/48VPoE	24V/48VDC	24V/48VDC
Power Redundancy	dual power supply	dual power supply	dual power supply	dual power supply
Power Connector	terminal block	terminal block	terminal block	terminal block
Working Environment				
Working Temperature	-40°C~75°C	-40°C~75°C	-40°C~75°C	-40°C~75°C
Storage Temperature	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)
Dimensions				
Size (W*H*D)	53*138*110 (mm)	53*138*110 (mm)	53*138*110 (mm)	70*160*130 (mm)

Unmanaged Industrial Ethernet PoE Switch




	IPS3110-2GC-4/8PoE	IPS316-2GC-4PoE	IPS215 Series	IPS2000G
Port				
Gigabit Ethernet, 10/100/1000Mbps	2Combo	2 Combo	/	/
PoE,Gigabit Ethernet,10/100/1000Mbps	/	/	/	4
Fast Ethernet, 10/100Mbps	/	8	1	/
PoE, Fast Ethernet, 10/100Mbps	4/8	4	4	/
Gigabit Fiber Ethernet, 1000Mbps	4 100/1000M SFP	/	/	1 100/1000M SFP
100Mbps Fiber (SC/ST/FC)	/	/	1	1
Console	√	√	/	/
Alarm	√	√	/	/
Exchange Attribute				
100M Forward Speed	148810pps	148810pps	148810pps	148810pps
1000M Forward Speed	1488100pps	1488100pps	148811pps	1488100pps
Transmit Mode	store and forward	store and forward	store and forward	store and forward
Switching Fabric Capacity	7.6G	7.6G	1.6G	14G
Memory	1M	1M	1M	1M
MAC Address Table	8K	8K	8K	8K
Power Supply				
Input Voltage	48VDC（44~55VDC)	48VDC	45~55VDC	48VDC
Power Redundancy	dual power supply	dual power supply	/	/
Power Connector	terminal block	terminal block	terminal block	terminal block
Working Environment				
Working Temperature	-40~75℃	-40~75℃	-40~75℃	-40℃~75℃
Storage Temperature	-40~85℃	-40~85℃	-40~85℃	-40~85℃
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)
Dimensions				
Size (W*H*D)	70*160*130 (mm)	70*160*130 (mm)	35*110*95 (mm)	35mm*110mm*95 (mm)

Unmanaged Full Gigabit PoE Ethernet Switch



	PS1005G-1GT-4PoE	PS5010G-2GS-8POE	PS5026G-2GS-4PoE
Port			
Gigabit Ethernet, 10/100/1000Mbps	1	2	2
PoE, Gigabit Ethernet, 10/100/1000Mbps	4	8	24
Console	/	√	√
Alarm	/	/	/
Exchange Attribute			
1000M Forward Speed	148100pps	148100pps	148100pps
Transmit Mode	store and forward	store and forward	store and forward
Switching Fabric Capacity	10G	20G	52G
Memory	1.5M	4.1M	4.1M
MAC Address Table	2K	8K	8K
Power Supply			
Input Voltage	51VDC	100~240VAC	100~240VAC
Power Redundancy	/	/	/
Power Connector	DC round head	3-pin Plug	3-pin Plug
Working Environment			
Working Temperature	0℃~45℃	-40℃~75℃	-40℃~75℃
Storage Temperature	-40℃~70℃	-40℃~70℃	-40℃~70℃
Relative Humidity	10%~90% (no condensation)	10%~90% (no condensation)	10%~90% (no condensation)
Dimensions			
Size (W*H*D)	140*76*27.7 (mm)	280*180*44.3 (mm)	440*208*44 (mm)

Industrial PoE Media Converter


	IPMC101 Series	IPMC100 Series
IEEE Standards		
IEEE 802.3	√	√
IEEE 802.3u	√	√
IEEE 802.3ab	/	√
IEEE 802.3z	/	√
IEEE 802.3x	√	√
IEEE 802.3af/at	√	√
Interface		
RJ45 Ports	10/100Base-T(X)	10/100/100Base-T(X)
Fiber Modes	muiti-mode fiber/single-mode fiber	multi-mode fiber/single-mode fiber
Fiber Ports	100Base-FX, (SC/ST/FC)/SFP	1000Base-FX, (SC/ST/FC)/SFP
LFP	√	√
DIP Switches	√	√
Transmission Distance		
Twisted Pair Cable	100m	
Single Mode Fiber	1310nm/20/30/60km,1550/80/100/120km	
Multimode Fiber	850nm/2km,1310nm/2/5km	
Power Supply		
Input Voltage	48VDC(44~55VDC)	
Power Redundancy	single power supply	
Power Connector	terminal block	
Working Environment		
Working Temperature	-40~75℃	
Storage Temperature	-40~85℃	
Relative Humidity	5%~95% (no condensation)	
Dimensions		
Size (W*H*D)	110*35*95 (mm)	

EN50155 Certified Industrial Ethernet Switch




	TNS5800-20GT	TNS5800-12GT	TNS5800-4GT-8T	TNS5800D-4GT-8T
Port				
Gigabit Ethernet, 10/100/1000Mbps	20 Gigabit	12 Gigabit	8 100M + 4 Gigabit	8 100M + 4 Gigabit
Gigabit Fiber Ethernet, 1000Mbps	/	/	/	/
Port Alarming	/	/	√	√
Console	√	√	√	√
Exchange Attribute				
100M Forward Speed	148810bps			
1000M Forward Speed	1488100bps			
Transmit Mode	store and forward			
Switching Fabric Capacity	128G			
Memory	12M			
MAC Address Table	16K			
Power Supply				
Input Voltage	110VDC	110VDC	110VDC	110VDC
Power Redundancy	dual power supply	dual power supply	/	/
Power Connector	M23 Connector	terminal block	terminal block	M12 Connector
Working Environment				
Working Temperature	-40~75℃			
Storage Temperature	-40~85℃			
Relative Temperature	5%~95% (no condensation)			
Installation				
Wall-mounted	/	/	/	√
DIN-rail	/	/	/	/
Rack-mounted	√	√	√	√
Network Management and Control				
VLAN	√	√	√	√
IGMP Snooping	√	√	√	√
QoS	√	√	√	√
SNMP/RMON	√	√	√	√
Port Trunking	√	√	√	√
SW-Ring	√	√	√	√
Relay Warning	/	/	√	√
Routing Protocol	√	√	√	√
Dimensions				
Size (W*H*D)	441.6*290*44.45 (mm)	441.6*290*44.45 (mm)	441.6*290*44.45 (mm)	180*170*60.2 (mm)

EN50155 Certified Industrial Ethernet Switch



	TNS5500-4GT-16T	TNS5500-4GT-8T	TNS5500-4GT-8PoE
Port			
Gigabit Ethernet, 10/100/1000Mbps	16	8	8PoE
Gigabit Fiber Ethernet, 1000Mbps	4	4	/
Port Alarming	/	√	√
Console	√	√	√
Exchange Attribute			
100M Forward Speed		148810bps	
1000M Forward Speed		1488100bps	
Transmit Mode		store and forward	
Switching Fabric Capacity		12.8G	
Memory		3M	
MAC Address Table		8K	
Power Supply			
Input Voltage	110VDC	110VDC	110VDC
Power Redundancy	dual power supply	/	/
Power Connector	M23 Connector	terminal block	terminal block
Working Environment			
Working Temperature		-40~75°C	
Storage Temperature		-40~85°C	
Relative Temperature		5%~95% (no condensation)	
Installation			
Wall-mounted	/	/	/
DIN-rail	/	/	/
Rack-mounted	√	√	√
Network Management and Control			
VLAN	√	√	√
IGMP Snooping	√	√	√
QoS	√	√	√
SNMP/RMON	√	√	√
Port Trunking	√	√	√
SW-Ring	√	√	√
Relay Warning	√	√	√
Routing Protocol	/	√	√
Dimensions			
Size (W*H*D)	441.6*290*44.45 (mm)	441.6*290*44.45 (mm)	441.6*290*44.45 (mm)

EN50155 Certified Industrial Ethernet Switch


	TNS5500D-4GT-8T	TNS5500D-4GT-8PoE
Port		
Gigabit Ethernet, 10/100/1000Mbps	8 100M + 4 Gigabit	8 100M PoE + 4 Gigabit
Gigabit Fiber Ethernet, 1000Mbps	/	/
Port Alarming	√	√
Console	√	√
Exchange Attribute		
100M Forward Speed	148810bps	148810bps
1000M Forward Speed	1488100bps	1488100bps
Transmit Mode	store and forward	store and forward
Switching Fabric Capacity	12.8G	12.8G
Memory	3M	3M
MAC Address Table	8K	8K
Power Supply		
Input Voltage	110VDC	110VDC
Power Redundancy	/	/
Power Connector	M12 Connector	M12 Connector
Working Environment		
Working Temperature	-40~75°C	-40~65°C
Storage Temperature	-40~85°C	-40~85°C
Relative Temperature	5%~95% (no condensation)	5%~95% (no condensation)
Installation		
Wall-mounted	√	√
DIN-rail	/	/
Rack-mounted	/	/
Network Management and Control		
VLAN	√	√
IGMP Snooping	√	√
QoS	√	√
SNMP/RMON	√	√
Port Trunking	√	√
SW-Ring	√	√
Relay Warning	√	√
Routing Protocol	√	√
Dimensions		
Size (W*H*D)	180*170*60.2 (mm)	180*170*60.2 (mm)

IEC61850 Certified Industrial Ethernet Switch



	MES5600	MES5000	MES600
Port			
Gigabit Fiber Ethernet, 1000Mbps	4	4	/
Fast Ethernet, 10/100Mbps	8	8	4
100Mbps Fiber (SC/ST/FC)	16	16	4
Console	√	√	√
RS-232/422/485	/	/	4
Alarm	√	√	√
Exchange Attribute			
100M Forward Speed	148810pps	148810pps	148810pps
1000M Forward Speed	1488100pps	1488100pps	1488100pps
Transmit Mode	store and forward	store and forward	store and forward
Switching Fabric Capacity	24.8G	12.8G	12.8G
Memory	16M	3M	3M
MAC Address Table	32K	8K	8K
Power Supply			
Input Voltage	48 VDC (36~72 VDC)	48 VDC (36~72 VDC)	24VDC(12-48VDC)
Power Redundancy	dual power supply	dual power supply	dual power supply
Power Connector	terminal block	terminal block	terminal block
Working Environment			
Working Temperature	-40~75°C	-40~85°C	-40~85°C
Storage Temperature	-40~75°C	-40~85°C	-40~85°C
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)
Network Management and Control			
Layer 3 Switching	√	/	/
Ip v6	/	/	/
IGMP Snooping/GMRP	√	√	√
SNMP/RMON	√	√	√
STP/RSTP/MSTP	√	STP/RSTP	STP/RSTP
Port Trunking	√	√	√
Port Mirroring	√	√	√
SW-Ring	√	√	√
QoS	√	√	√
LLDP	√	√	√
VLAN	√	√	√
IEEE 802.1X	/	√	√
SNTP	√	√	√
Relay Warning	√	√	√
Dimensions			
Size (W*H*D)	441.6*288*43 (mm)	441.60*290.00*44.45 (mm)	130*70*160 (mm)

Managed Desktop Full Gigabit Bypass Industrial Ethernet Switch

		IES3000 Series
Port		
Gigabit Ethernet, 10/100/1000Mbps		8
Gigabit Fiber Ethernet, 1000Mbps		4
Fast Ethernet, 10/100Mbps		/
Console		√
Alarm		√
Exchange Attribute		
100M Forward Speed		14810pps
1000M Forward Speed		148100pps
Transmit Mode		store and forward
Switching Fabric Capacity		24G
Memory		4M
MAC Address Table		8K
Power Supply		
Input Voltage	PoE	24VDC/48VDC
	Non-PoE	24VDC(12~48VDC)/220VAC
Power Redundancy		dual power supply
Power Connector		3-pin plug/terminal block
Working Environment		
Working Temperature		-40℃~75℃
Storage Temperature		-40℃~85℃
Relative Humidity		5%~95% (no condensation)
Dimensions		
Size (L*W*H)		440*285*43 (mm)

Industrial Ethernet Media Converter





	IMC101GT Series	IMC102GT Series	IMC101B	IMC102B	IMC101M
IEEE Standards					
IEEE 802.3	√	√	√	√	√
IEEE 802.3u	√	√	√	√	√
IEEE 802.3ab	√	√	/	/	/
IEEE 802.3z	√	√	/	/	/
IEEE 802.3x	√	√	√	√	√
Interface					
RJ45 Ports	10/100/1000Base-T(X)		10/100Base-T(X)		
Fiber Modes	multi-mode fiber / single-mode fiber		multi-mode fiber / single-mode fiber		
Fiber Ports	1000Base-X (SFP) or 1000Base-FX (SC/ST/FC)		100Base-FX , (SC/ST/FC)		
LFP	√	/	/	/	√
DIP Switches	√	√	√	√	/
Transmission Distance					
Twisted Pair Cable	100m				
Single Mode Fiber	1310nm /20/40/60km , 1550nm /80/100/120km				
Multimode Fiber	1310nm/2km				
Power Supply					
Input Voltage	12~48VDC	12~48VDC	12~48VDC	9~48VDC or 100~240VAC	12~48VDC
Power Redundancy	single power supply				
Power Connector	terminal block				
Working Environment					
Working Temperature	-40~75°C	-40~75°C	-40~75°C	-40~75°C	-40~75°C
Storage Temperature	-40~85°C	-40~85°C	-40~85°C	-40~85°C	-40~85°C
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)
Dimensions					
Size (W*H*D)	35*110*95 (mm)	35*110*95 (mm)	35*110*95 (mm)	35*110*95 (mm)	35*110*95 (mm)

Industrial Ethernet Media Converter

	IMC100-2T1F-1D
Poart	
Serial Port	1 RS232/485/422
10/100Mbps Ethernet Port	2
100Mbps Fiber Port (SC/ST/FC)	1
Exchange Attribute	
Transmit Mode	terminal block
Power Supply	
Input Voltage	24VDC(12~48VDC)
Power Redundancy	0.14A
Power Redundancy	dual power supply
Power Connector	terminal block
Working Environment	
Working Temperature	-40°C~75°C
Storage Temperature	-40°C~85°C
Relative Humidity	5%~95% (no condensation)
Installation	
Wall Mounting	√
DIN-ril Mounting	√
Rack Mounting	/
Network Management	
LFP	√
Network Management	√
Dimensions	
Size (W*H*D)	36*110*95 (mm)

Industrial Media Converter Chassis

	RACK2100 Series
Physical Characteristics	
Number Of Slots	18
Dimensions (mm)	432.04*278*88.1(mm)
Installationt	19 inch 2U
Shell	aluminium alloy
Power Supply	
Input Voltage	85~264VAC
Output Voltage	12VDC
Power Redundancy	√
Network Management and Control	
Working Temperature	-30~60℃
Storage Temperature	-30~60℃
Relative Humidity	5%~95% (no condensation)

	ECU Card Series
IEEE Standards	
IEEE 802.3	√
IEEE 802.3u	√
IEEE 802.3ab	/
IEEE 802.3z	/
IEEE 802.3x	√
Interface	
RJ45 Ports	10/100Base-T(X)
Fiber Modes	multi-mode fiber / single-mode fiber
Fiber Ports	100Base-FX , (SC/ST/FC)
LFP	√
DIP Switches	√
Transmission Distance	
Twisted Pair Cable	100m
Single Mode Fiber	1310nm /20/40/60km , 1550nm /80/100/120km
Multimode Fiber	1310nm/2km
Power Supply	
Input Voltage	12VDC
Power Redundancy	single power supply
Power Connector	OUPIIN socket
Working Environment	
Working Temperature	-30~60℃
Storage Temperature	-30~60℃
Relative Humidity	5%~95% (no condensation)
Dimensions	
Size (W*H*D)	20*84.5*122.5 (mm)

Embedded Industrial Ethernet Switch Module

	IEM7110-3G	IEM618-4D-2C	IEM615-2D/2C
Port Number			
10M/100M/1000Mbps	7	8	5
10M/100Mbps	3	/	/
Serial Port	/	4	2
CAN Port	/	2	2
Alarm Port	√	√	√
Exchange Attribute			
100M Forward Speed	148810pps	148810pps	148810pps
1000M Forward Speed	1488100pps	/	/
Transmit Mode	store and forward	store and forward	store and forward
Switching Fabric Capacity	7.6G	2G	1.2G
Memory	1M	1M	1M
MAC Address Table	8K	2K	2K
Power Supply			
Input Voltage	3.3VDC(±5%)	3.3VDC(±5%)	3.3VDC(±5%)
Power Consumption	⩽3	⩽1.5	⩽1.5
Working environment			
Working Temperature	-40℃~85℃	-40℃~85℃	-40℃~85℃
Storage Temperature	-40℃~85℃	-40℃~85℃	-40℃~85℃
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)
Installation			
DIP Connector(double row)	2*50+1*32, pin pitch: 2mm	2*50+1*32, pin pitch: 2mm	2*50+1*32, pin pitch: 1.27mm
Network Management and Control			
Port based VLAN	√	√	√
IGMP Snooping	√	√	√
QoS	√	√	√
SNMP/RMON	/	√	/
IEEE802.1Q VLAN	√	√	√
Port Trunking	√	√	√
Redundancy	SW-Ring/STP/RSTP	SW-Ring/STP/RSTP	SW-Ring/STP/RSTP
Alarm Setting	√	√	√
Serial Setting	/	√	√
CAN Setting	/	√	√
Dimensions			
Size (W*H*D)	72*9.5*54 (mm)	72*9.5*54 (mm)	55*9.5*54 (mm)
Warranty			
Warranty	3 years	3 years	3 years

Embedded Serial Device Server Module

	NPM301
Ethernet Interface	
10/100Base Port	1
Serial Interface	
TTL Ports	1 Port
Signals	TXD,RXD,DTR,DSR,CTS,RTS,GND
Serial Parameters	Data Bits: 5, 6 , 7 , 8, Stop Bits: 1, 1.5, 2, Parity: None, Even, Odd, Space, Mark
Flow Control	RTS/CTS,or No flow control
Baudrate	300bps~115200bps
Network Management and Control	
Protocol	TCP, UDP, ARP, ICMP,DHCP, DNS
Setting Way	WEB/serial/telnet
Serial Command	support
Real Com Driver	Win2000, WinXP, Win2003, Vista, Server2008, Win7, Win8
Operation Mode	TCP server/client, TCP auto, UDP, real com driver
Power Supply	
Input Voltage	3.3 VDC (±5%)
Power Consumption	≤0.41
Working Environment	
Working Temperature	-40~75℃
Storage Temperature	-40~85℃
Relative Humidity	5%~95% (no condensation)
Installation	
DIP Connector(double row)	2*50+1*32, Pin pitch: 2mm
Dimensions	
Size (W*H*D)	32.5*13.8*25 (mm)
Warranty	
Warranty	3 years

Industrial Modbus Gateway

	GW1108-8D Series	GW1104-4D Series	GW1102-2D Series	GW1101-1D Series	IGW1114
Ethernet Interface					
Number Of Ports	1	1	1	1	2
Connectors	RJ45	RJ45	RJ45	RJ45	RJ45
Speed	10/100Mbps, Auto MDI/MDIX	10/100Mbps, Auto MDI/MDIX	10/100Mbps, Auto MDI/MDIX	10/100Mbps, Auto MDI/MDIX	10/100Mbps
Magnetic Lsolation Protection	√	√	/	/	√
Serial Interface					
Number Of Ports	8	4	2	1	2/4
Serial Standards	RS-232/422/485	RS-232/422/485	RS-232/422/485	RS-232/422/485	RS-232/422/485
Connectors	RJ45/terminal block	RJ45/terminal block	RJ45/terminal block	RJ45/terminal block	DB9
ESD Protection	15KV	15KV	8KV	8KV	8KV
Serial Communication Parameters	Parity: None, Even, Odd, Space, Mark , Data Bits: 7, 8 , Stop Bits: 1, 2				
Flow Control	NO, RTS/CTS, XON/XOFF, DTR/DTS				
Working Mode	RTU slave, RTU master, ASCII slave, ASCII master				
Baudrate	300bps-115200bps	300bps-115200bps	300bps-115200bps	300bps-115200bps	300bps~921600bps
Power Supply					
Input Voltage	9~48VDC	9~48VDC	9~48VDC	9~48VDC	12~48VDC
Power Connector	terminal block	terminal block	terminal block	terminal block	terminal block
Network Management and Control					
Telnet Configuration	√	√	√	√	√
WEB Configuration	√	√	√	√	√
Installation					
DIN-Rail Mounting	√	√	√	√	√
Panel Mounting	√	√	√	√	wall mounting
Working Environment					
WorkingTemperature	-40~75℃	-40~75℃	-40~75℃	-40~75℃	-40℃~75℃
Storage Temperature	-40~85℃	-40~85℃	-40~85℃	-40~85℃	-40℃~85℃
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)
Dimensions					
Size (L*W*H)	170*110*31.5 (mm)	170*110*31.5 (mm)	100*69*22 (mm)	100*69*22 (mm)	138*110*53 (mm)

Industrial Serial Device Server



	NP5100-2T-32DI/16DI	NP3116T-16D/8D Series	NP308T-8D Series
Ethernet Interface			
Number of Ports	2	2	1
Connectors	RJ45	RJ45	RJ45
Speed	10/100Mpbs	10/100Mpbs	10/100Mpbs
Magnetic Isolation Protection	√	√	√
Serial Interface			
Number Of Ports	32/16	16/8	8
Serial Standards	RS-232/422/485	RS-232/422/485	RS-232/422/485
Connectors	RJ45	RJ45/terminal block	RJ45/terminal block
ESD Protection	15KV	8KV	15KV
Serial Communication Parameters	Parity: None, Even, Odd, Space, Mark , Data Bits: 5 , 6 , 7, 8 , Stop Bits: 1, 1.5, 2		
Flow Control	NO,RTS/CTS,DTR/DTS,XON/XOFF	NO,RTS/CTS	NO,RTS/CTS
Baudrate	300bps-115200bps	300bps-115200bps	300bps-115200bps
Power Supply			
Input Voltage	85~265VAC	85~265VAC	9 ~ 48VDC
Power Connector	3-pin plug	3-pin plug	terminal block
Network Management and Control			
Network Protocols	TCP, UDP, ARP, ICMP, HTTP, DNS, DHCP		
Web Console	√	√	√
Serial Console	√	√	√
Windows Utility	√	√	√
Windows Real COM Drivers	Windows NT/2000,WindowsXP/2003/Vista/2008/7 x86/x64		
Installation			
DIN-Rail Mounting	/	/	√
Panel Mounting	/	/	√
Rack Mounting	√	√	/
Working Environment			
Working Temperature	-40~75℃	-40~75℃	-40~75℃
Storage Temperature	-40~85℃	-40~85℃	-40~85℃
Relative Humidity	5%~95% (no condensation)		
Dimensions			
Size (L*W*H)	440*265.6*44 (mm)	441.6*207.9*44.6 (mm)	170*110*31.5 (mm)

Industrial Serial Device Server



	NP304T-4D Series	NP301	INP314T
Ethernet Interface			
Number of Ports	1	1	2
Connectors	RJ45	RJ45	RJ45
Speed	10/100Mpbs	10/100Mpbs	10/100Mbps
Magnetic Isolation Protection	√	/	/
Serial Interface			
Number Of Ports	4	1	2/4
Serial Standards	RS-232/422/485	RS-232/422/485	DB9
Connectors	RJ45/terminal block	DB9-M/terminal block	DB9-M/terminal block
ESD Protection	15KV	8KV	8KV
Serial Communication Parameters	Parity: None, Even, Odd, Space, Mark , Data Bits: 5 , 6 , 7, 8 , Stop Bits: 1, 1.5, 2		
Flow Control	NO,RTS/CTS	NO,RTS/CTS	NO, RTS/CTS, XON/XOFF, DTR/DTS
Baudrate	300bps-115200bps	300bps-115200bps	300bps～921600bps
Power Supply			
Input Voltage	9 ~ 48VDC	9 ~ 48VDC	12~48VDC
Power Connector	terminal block	terminal block	terminal block
Network Management and Control			
Network Protocols	TCP, UDP, ARP, ICMP, HTTP, DNS, DHCP		
Web Console	√	√	√
Serial Console	√	√	√
Windows Utility	√	√	√
Windows Real COM Drivers	Windows NT/2000,WindowsXP/2003/Vista/2008/7 x86/x64		
Installation			
DIN-Rail Mounting	√	√	√
Panel Mounting	√	√	/
Rack Mounting	/	/	/
Working Environment			
Working Temperature	-40~75℃	-40~75℃	-40~75℃
Storage Temperature	-40~85℃	-40~85℃	-40~85℃
Relative Humidity	5%~95% (no condensation)		
Dimensions			
Size (L*W*H)	170*110*31.5 (mm)	100*69*22 (mm)	138*110*53 (mm)

CAN-Bus Device Server


	CP202-2CI	ICP222-2F-2CI
Ethernet Interface		
Number Of Ports	1	2
Connectors	RJ45	SC Fiber
Speed	10/100Mpbs	10/100Mpbs
Fiber Interface		
Number Of Ports	/	/
Connectors	/	/
CAN Interface		
CAN Standard	CAN2.0A, CAN2.0B	CAN2.0A, CAN2.0B
Signals	SHELL, CAN-L, CAN-H, RES+, RES-	SHELL, CAN-L, CAN-H, RES+, RES-
Baudrate	5K~1Mbps	5K~1Mbps
Interface Protection	2KV Surge	2KV Surge
Connector	terminal block	terminal block
Power Supply		
Input Voltage	9~24VDC	12~48VDC
Power Connector	terminal block	terminal block
Network Management and Control		
Network Protocols	ARP, ICMP, UDP, TCP, IP, HTTP, DHCP, DNS	ARP, ICMP, UDP, TCP, IP, HTTP, DHCP, DNS
Web Console	√	√
Serial Console	/	√
Windows Utility	√	√
Installation		
DIN-Rail Mounting	√	√
Panel Mounting	√	√
Rack Mounting	/	/
Working Environment		
Working Temperature	-40~75℃	-40~75℃
Storage Temperature	-40~85℃	-40~85℃
Relative Humidity	5%~95%（no condensation）	5%~95%（no condensation）
Dimensions		
Size (W*H*D)	70.6*94*26 (mm)	35*110*95 (mm)

USB to RS-232/485/422 Interface Converter







	USB232	USB4232	USB8232I	USB485	USB485I	USB4485	USB8485I
USB Interface							
Number of Ports	USB 1.1/USB2.0 compliant, EIA RS-232			USB 1.1/USB2.0 compliant, EIA RS-422, EIA RS-485			
Connectors	USB type A			USB type A			
Speed	VCC, DATA+, DATA-, GND, FG			VCC, DATA+, DATA-, GND, FG			
Serial Interface							
Number Of Ports	1 x RS-232	4 x RS-232	8 x RS-232	1 x RS-485	1 x RS-232/485/422	4 x RS-232/485/422	8 x RS-232/485/422
Connectors	Db9 male / terminal block						
Interface Protection	15 KV ESD, 600W surge						
Serial Communication Parameters	Data Bits: 5, 6, 7, 8, Stop Bits: 1, 2, Parity: None, Even, Odd, Space, Mark						
Baudrate	300bps-115200bps						
Flow Control	RTS/CTS						
Driver Support							
Windows 2000	√	√	√	√	√	√	√
Windows XP/2003 x86/x64	√	√	√	√	√	√	√
Windows Vista x86/x64	√	√	√	√	√	√	√
Windows CE 4.2/5.0/5.2/6.0	√	√	√	√	√	√	√
Mac OS-X	√	√	√	√	√	√	√
Linux (above 2.4 versions), x86_64 Linux	√	√	√	√	√	√	√
Environmental Limits							
Working Temperature	-20～60℃		-40～75℃	-20～60℃	-40～75℃	-20～60℃	-40～75℃
Storage Temperature	-25～85℃		-40～85℃	-25～85℃	-40～85℃	-25～85℃	-40～85℃
Relative Humidity	5%～95% (no condensation)						
Power Requirements							
Input Voltage	/	5VDC	5VDC	/	12VDC(9~48VDC)	5VDC	9VDC
Dimensions							
Size (L*W*H)	72*33*18 (mm)	160*94*28 (mm)	230*148.3*40 (mm)	72*33*18 (mm)	100*69*22 (mm)	160* 94*28 (mm)	230*148.3*40 (mm)

RS-232/485/422 Interface Converter





	TLC485	TLC422	MODEL485P	SW485GI	SW4485I
Serial Interface					
RS-232	√	√	√	√	√
RS-422/485	/	/	√	√	/
RS-422	/	√	/	/	/
RS-485	√	/	/	/	√
Connector	DB9/ terminal block	DB9/ terminal block	DB9/ terminal block	DB9/ terminal block	terminal block
Interface Protection	15kV ESD		15kV ESD, 600W surge	15kV ESD, 600W surge 3kV electrical isolation	2kV electrical isolation
Compliance	EIA RS-232, EIA RS-422, EIA RS-485				
Baudrate	300bps~115200bps				
Flow Control	auto detect direction control				
Working Environment					
Working Temperature	-20～60°C	-20～60°C	-20～60°C	-40～75°C	-40～75°C
Storage Temperature	-25～85°C	-25～85°C	-25～85°C	-40～85°C	-40～85°C
Relative Humidity	5%～95% (no condensation)				
Power Requirements					
Input Voltage	/	/	9VDC	9～36VDC	12～48VDC
Dimensions					
Size (W*H*D)	90*33*16.5 (mm)(DB9)	65*55*16.5 (mm)(DB25)	62.4*93*22 (mm)	69*100*22 (mm)	35*100*95 (mm)

CAN-Bus to RS-232/485/422 Converter


	CAN232	CAN485
Serial Port		
Standard	EIA RS-232C	EIA RS-485
Protocol	Modbus RTU (optional)	Modbus RTU (optional)
Serial Port Quantity	1 RS-232 serial port	1 RS-485 serial port
RS-485 Signal	TXD, RXD, GND	D+, D-, GND
Baud Rate	300-115200bps	300-115200bps
Data Bit	8bit	8bit
Check Bit	None, Even, Odd, Space, Mark	None, Even, Odd, Space, Mark
Stop Bit	1bit, 2bit	1bit, 2bit
Interface Form	DB9, Female	DB9, Female
Transmission Distance	15m	1200m
CAN Interface		
Standard	CAN2.0A, CAN2.0B	CAN2.0A, CAN2.0B
Interface Quantity	1 CAN port	1 CAN port
CAN Signal	CANH, CANL, GND	CANH, CANL, GND
Duplex Mode	2-wire Half Duplex Mode	2-wire Half Duplex Mode
Baud Rate	2.5kbps-1000kbps	2.5kbps-1000kbps
Load Capacity	support concurrent transmitting of 110 nodes	support concurrent transmitting of 110 nodes
Transmission Distance	40m~10km	40m~10km
Interface Form	adopt 5-pin 5.08mm pitch terminal blocks	adopt 5-pin 5.08mm pitch terminal blocks
Terminating Resistor	optional external 120Ω terminating resistor	optional external 120Ω terminating resistor
Interface Protection	2kVAC isolation protection	2kVAC isolation protection
Working Environment		
Working Temperature	-40~75°C	-40~75°C
Storage Temperature	-40~85°C	-40~85°C
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)
Power Requirement		
Input Voltage	9~48VDC	9~48VDC
Dimensions		
Size (W*H*D)	69*100*22 (mm)	69*100*22 (mm)

Surge Protector



	FL45	FL485	FL-BNC
Date Line Surge Protection			
Interface	RJ45	terminal block	BNC
Standard	IEC6100-4-5, ITU-TK20 & 21	IEC6100-4-5, ITU-TK20 & 21	IEC6100-4-5, ITU-TK20 & 21
Nominal Discharge Current (In)	5KA (8/20 S) μ	5KA (8/20 S) μ	5KA (8/20 S) μ
Working Voltage	0~5V	0~5V	0~2V
Limit Voltage	≤40V	≤15V	≤30V
Apply Band Rate	100Mbps	1Mbps	10Mbps
Insert Consumption	≤0.5dB	≤0.5dB	≤0.5dB
Delay Time	<1ns	<1ns	<10ns
Working Environment			
Working Temperature	-20℃~60℃	-20℃~60℃	-20℃~60℃
Storage Temperature	-25℃~85℃	-25℃~85℃	-25℃~85℃
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)
Dimensions			
Size (W*H*D)	84*25*25 (mm)	80*25*25 (mm)	86*25*25 (mm)

RS-232 Isolator & Repeater


	MODEL232I	MODEL232D
Serial Interface		
Number of Ports	1*RS-232	1*RS-232
Connectors	DB9/DB25	DB9
Signal Support	TXD, RXD, GND	TXD, RXD, GND, RTS, CTS, DTR, DSR
Serial Communication Parameters	Data bits: 5, 6, 7, 8 Stop bits: 1, 2 Parity: None, Even, Odd, Space, Mark	Data bits: 5, 6, 7, 8 Stop bits: 1, 2 Parity: None, Even, Odd, Space, Mark
Baudrate	300bps~921600bps	300bps~115200bps
Compliance	EIA RS-232	EIA RS-232
Transfer Distance	5m	2km
Interface Protection	600W surge, 15KV ESD protection, 2500V electrical isolation	2.5KV electrical isolation
Working Environment		
Working Temperature	0℃~70℃	-25℃~70℃
Storage Temperature	-40℃~85℃	-40℃~85℃
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)
Dimensions		
Size (W*H*D)	63*33*17.5 (mm)	72*33*16.5 (mm)

Media Converter


	MODEL1100	MODEL3012
IEE Standards		
IEE 802.3	√	√
IEE 802.3u	√	√
IEE 802.3ab	/	√
IEE 802.3z	/	√
Interface		
RJ45 Ports	10/100Base-T (X)	10/100/1000Base-T (X)
Fiber Modes	muiti-mode fiber/single-mode fiber	muiti-mode fiber/single-mode fiber
Fiber Ports	100Base-FX (SC/ST/FC)	1000Base-FX (SC/ST/FC)
Transmision Distance		
Twisted Pair Cable	100m	100m
Single Mode Fiber	1310nm/20/40/60km, 1550nm/80/100/120km	1310nm/20/40/60km, 1550nm/80/100/120km
Multimode Fiber	850nm/2km, 1310nm/2/5km	850nm/2km, 1310nm/2/5km
Network Management & Control		
WEB Management	/	/
SNMP Management	/	/
Telent Management	/	/
Console Management	/	/
Up Graded Online via TFTP	/	/
Power Supply		
Input Voltage	External 5VDC, built-in 220VAC, 48VDC optional	External 5VDC, built-in 220VAC, 48VDC optional
Working Environment		
Working Temperature	-10℃~60℃	-10℃~60℃
Storage Temperature	-20℃~70℃	-20℃~70℃
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)
Dimensions		
Size (W*H*D)	94*71*26 (mm)	94*71*26 (mm)

Media Converter Chassis



	RACK2000A	RACK2000B	RACK2000C
Physical Characteristics			
Number of Slots	RJ45	terminal block	BNC
Dimensions	488*90*231 (mm)	483.4*90.5*291.2 (mm)	487*90*317 (mm)
Installation Options	19 inch 2U	19 inch 2U	19 inch 2U
Shell	aluminium alloy	aluminium alloy	aluminium alloy
Power Supply			
Input Voltage	AC 100~260V, 50~60HZ/DC-48V	AC 100~260V, 50~60HZ/DC-48V	AC 100~260V, 50~60HZ/DC-48V
Network Management & Control			
WEB Management	/	/	√
SNMP Management	/	/	√
Telent Management	/	/	√
Working Environment			
Working Temperature	0°C~50°C	0°C~50°C	0°C~50°C
Storage Temperature	-40°C~85°C	-40°C~85°C	-40°C~85°C
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)

RS-232/485/422/CAN to Fiber Converter






	MODEL277 Series	MODEL277A	MODEL277B	MC201	IMF204/208	IMF2100
Optical Fiber Side						
Number of Ports	1	1	1	1	2	1/2 (support ring network)
Fiber Connectors	SC/ST/FC	SC/ST/FC	SC/ST/FC	SC/ST/FC	SC/ST/FC	SC/ST/FC
Multimode	850nm/2km, 1310/2/5km					2km
Single mode	1310nm/20/40/60km, 1550nm/80/100/120km					20/40/60km
Serial Interface						
RS-232	1	1	/	/	/	1 RS-232/485/422
RS-422/485	1	/	1	/	4/8	
CAN	/	/	/	1	/	/
Connector	terminal block	DB9	terminal block	terminal block	terminal block	terminal block
Signals	RS-232 signals: Tx, Rx, GNG RS-422 signals: T+, T-, R+, R-, GND RS-485 signals: D+, D-, GND	RS-232 signals: Tx, Rx, GNG	RS-232 signals: Tx, Rx, GNG	CANH, CANLGND	RS-422 signals: T+, T-, R+, R-, GND RS-485 signals: D+, D-, GND	RS-232 signal: RXD, TXD, GND RS-485 signal: D+, D-, GND RS-422 signal: T+, T-, GND, R+, R
Compliance	EIA RS-232, EIA RS-422, EIA RS-485	EIA RS-232	EIA RS-422, EIA RS-485	CAN2.0A, CAN2.0B	EIA RS-422, EIA RS-485	EIA RS-232C, RS-485, RS-422
Baudrate	0bps~115200bps	0bps~115200bps	0bps~115200bps	2.5Kbps~1000Kbps	0bps~115200bps	300~115200bps
Power Supply						
Input Voltage	12~48VDC	5VDC,-48VDC,220VAC		5VDC	9~48VDC/110~240VDC	12~48VDC/12~48VDC 110~370VDC/85~265VAC
Working Environment						
Working Temperature	-40°C~75°C	-10°C~60°C		-40~75°C	-10°C~70°C	-40°C~75°C
Storage Temperature	-40°C~75°C	-40°C~85°C		-40~85°C	-10°C~70°C	-40°C~85°C
Relative Humidity	5%~95% (no condensation)					
Dimensions						
Size (W*H*D)	100*69*22 (mm)	94*71*26 (mm)		100*69*22(mm)	200*120*35 (mm)	35*110*95 (mm)

Industrial Protocol Converter

	Serial to E1		BNC to RJ45
			
	E232	E485	TLC703
E1 Interface			
Standard	ITU-T G.703, ITU-TG.735, ITU-TG.823	ITU-T G.703, ITU-TG.735, ITU-TG.823	/
Frame Format	unframed	unframed	/
Interface Rate	2.048Mbps±50ppm	2.048Mbps±50ppm	/
CRC Checkout	No	No	/
Port Coding	HDB3	HDB3	/
Port Transmission	2km	2km	/
Interface Protection	1500W surge protection, 15KV ESD protection	1500W surge protection, 15KV ESD protection	/
Connectors	120 ohm (RJ45) & 75 ohm (BNC double coaxial)	120 ohm (RJ45) & 75 ohm (BNC double coaxial)	/
Balance to Unbalance Converter			
Standard	/	/	ITU/CCITT G.703
Twisted-pair Signal	/	/	T+, T-, R+, R-, GND
Copper Signal	/	/	TX, RX
Working	/	/	Transparent Convert
Baud Rate	/	/	2Mbps
Isolation	/	/	1000V
Interface Style	/	/	BNC (75 ohm, unbalance) RJ45 (100 ohm, balance)
Serial Interface			
Standard	EIA RS-232C	EIA RS-485, RS-422	/
Connector	DB25 female	DB25 female	/
Signal	TXD, RXD, CTS, DSR, GND, DCD	D+, D-, GND, TXD+, TXD-, RXD+, RXD-, GND	/
Baud Rate	0~115200BPS	0~115200BPS	/
Work Mode	DCE	DCE	/
Interface Protection	600W surge protection, 15KV ESD protection	600W surge protection, 15KV ESD protection	/
Working	synchronous serial, lucency transmission	synchronous serial, lucency transmission	/
Power Supply			
Input Voltage	220VAC/-48VDC	220VAC/-48VDC	/
Working Environment			
Working Temperature	-25°C~70°C	-25°C~70°C	-40°C~75°C
Storage Temperature	-40°C~85°C	-40°C~85°C	-40°C~85°C
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)
Dimensions			
Size (W*H*D)	227.4*146.3*42.7 (mm)	227.4*146.3*42.7 (mm)	66*42*20 (mm)

E1/FE1/Ethernet Protocol Converter

		
	MODEL7210	MODEL7211A
E1 Interface		
Standard	ITU-T G.703, ITU-TG.735, ITU-TG.823	ITU-T G.703, ITU-TG.735, ITU-TG.823
Frame Format	unframed	unframed
Interface Rate	2.048Mbps*4=8.192Mbps	2.048Mbps
CRC Checkout	No	No
Port Coding	HDB3	HDB3
Port Transmission	2km	2km
Interface Protection	1500V electromagnetism isolate	1500V electromagnetism isolate
Connectors	120 ohm (RJ45) & 75 ohm (BNC double coaxial)	120 ohm (RJ45) & 75 ohm (BNC double coaxial)
Ethernet Port		
Interface Types	10/100BaseT, full/half duplex	10/100BaseT, full/half duplex
Standards Compliance	IEEE802.3 (support VLAN)	IEEE802.3
Bit Rate	10/100BaseT limited to max 2.048Mbps	10/100BaseT limited to max 2.048Mbps
Connectors	RJ45 (10/100Base-T electrical)	RJ45 (10/100Base-T electrical)
Line Code	manchester encoding	manchester encoding
Clock Selection	internal and recover clock	internal and recover clock
V35 Interface		
Standard	/	/
Clock	/	/
Connector	/	/
Line Code	/	/
Clock Selection	/	/
Test Facility	/	/
Power Supply		
Input Voltage	220VAC/-48VDC	220VAC/-48VDC
Working Environment		
Working Temperature	-25°C~70°C	-25°C~70°C
Storage Temperature	-40°C~85°C	-40°C~85°C
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)
Dimensions		
Size (W*H*D)	483*160*44 (mm)	227.4*146.3*42.7 (mm)

Industrial Wireless AP



	IAP2312N-2T	IRT5300-AW-5T2D	IAP2600 Series
WLAN			
WLAN Standard	IEEE802.11b/g/n, IEEE802.11i, IEEE802.11r, IEEE802.3, IEEE802.3u	IEEE802.11b/g/n for WLAN, IEEE802.11i for wireless security, IEEE802.11r for fast roaming, IEEE802.3af/at for PoE, IEEE 802.3 for 10BaseT, IEEE 802.3u for 100BaseT(X)	IEEE 802.3 for 10Base-T, IEEE 802.3u for 100Base-TX, IEEE802.3af/at for PoE, IEEE 802.3ab for 1000Base-T, IEEE802.11b/g/n/a/ac for WLAN, IEEE802.11r for fast roaming, IEEE802.11i for wireless security
Operating Frequency	2.412GHz~2.4835GHz	2.412GHz~2.4835GHz	802.11b/g/n: 2.412GHz~2.4835GHz 802.11ac/n/a: 5.18GHz~5.825GHz
Number of RF Module	1	1	1
Maximum Data Rate	300Mbps	300Mbps	1200Mbps
Standard Antenna	5DBi Omnidirectional Antenna	2 LTE, 2 WIFI	4 dual-RF omnidirectional antennas
Transmission Distance	<100m	<100m	<100m
Port			
Number of Antenna Port	2 (2*2MIMO)	4 (2*LTE+2*WIFI)	4
Antenna Port Type	RP-SMA (female)	RP-SMA (female)	N-type (female)
Number of LAN Port	2	5	1
LAN Port Type	RJ45	RJ45	RJ45
LAN Port Speed	10/100Base-T(X)	10/100Base-T(X)	10/100/1000Base-T(X)
RS-232 Console Port	1, RJ45	2	
Shell			
IP Grade	IP40	IP30	IP67
Shell Material	Metal Shell	Metal Shell	Metal Shell
Dimensions (exclude antenna)	138*110*35 (mm)	53*138*110 (mm)	220*220*106.32 (mm)
Mounting Method			
DIN-rail	√	√	/
Wall-mounted	√	/	√
Pole Mounting	/	/	√
Working Environment			
Working Temperature	-40°C~75°C	-40°C~75°C	-40°C~75°C
Storage Temperature	-40°C~85°C	-40°C~85°C	-40°C~85°C
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)
Working Environment			
Input Voltage	12~48VDC/48VDC	12~48VDC/48VDC PoE	48VDC PoE
Port Type	PoE3-pin terminal block	6-pin terminal block	/
PoE	√	√	√
Non-polarity Connection	√	√	/

Optical Transceiver





	SWV61100 Series	SWV61200 Series	SWV61400 Series	SWV61800 Series	SWV62600 Series
Video Interface					
Video Interface Number	1	2	4	8	16
Video Bandwidth	50MHz	50MHz	50MHz	50MHz	50MHz
Video Input & Output Impedance	75 Ω (unbalance), BNC	75 Ω (unbalance), BNC	75 Ω (unbalance), BNC	75 Ω (unbalance), BNC	75 Ω (unbalance), BNC
Video Input & Output Voltage	1.0Vp-p	1.0Vp-p	1.0Vp-p	1.0Vp-p	1.0Vp-p
Differential Gain	<±1.5%	<±1.5%	<±1.5%	<±1.5%	<±1.5%
Differential Phase	< ±1°	< ±1°	< ±1°	< ±1°	< ±1°
Weighted Signal-to-noise Ratio	>67dB	>67dB	>67dB	>67dB	>67dB
Data Interface					
Physical Interface	terminal blocks	terminal blocks	terminal blocks	terminal blocks	terminal blocks
Interface Signal	RS-485 (RS-232/RS423 optional)	RS-485 (RS-232/RS423 optional)	RS-485 (RS-232/RS423 optional)	RS-485 (RS-232/RS423 optional)	RS-485 (RS-232/RS423 optional)
Data Rate	0-200Kbps	0-200Kbps	0-200Kbps	0-200Kbps	0-400Kbps
BER	< 10 - 9	< 10 - 9	< 10 - 9	< 10 - 9	< 10 - 9
AUTIO Interface					
Interface Port	terminal blocks	terminal blocks	terminal blocks	terminal blocks	terminal blocks
Audio Input/Output Impedance	600Ω (balance/imbalance)	600Ω (balance/imbalance)	600Ω (balance/imbalance)	600Ω(Balance/ unbalance)	600Ω(Balance/ unbalance)
Audio Input/Output Voltage	2Vpp (typical value)	2Vpp (typical value)	2Vpp (typical value)	2Vp-p (typical value)	2Vp-p (typical value)
Audio Input/Output Level	0 dbm (typical value)	0 dbm (typical value)	0 dbm (typical value)	0 dbm (typical value)	0 dbm (typical value)
Audio Bandwidth	10HZ~12KHZ	10HZ~20KHZ	10HZ~20KHZ	10HZ~12KHZ	10HZ~20KHZ
Audio Digital Bandwidth	24 bit	24 bit	24 bit	24 bit	24 bit
Andio Signal-to-noise Ratio	S/N ⩾95dB (weighted)	S/N ⩾95dB (weighted)	S/N ⩾95dB (weighted)	S/N ⩾95dB (weighted)	S/N ⩾95dB (weighted)
Ethernet Interface					
Physical Interface	RJ45	RJ45	RJ45	RJ45	RJ45
Operating Mode	full dulex / half dulex	full dulex / half dulex	full dulex / half dulex	full dulex / half dulex	full dulex / half dulex
Data Rate	100Mbps	10/100Mbps	10/100Mbps	10/100Mbps	10/100Mbps
Support Agreement	IEEE802.3	IEEE802.3	IEEE802.3	IEEE802.3	IEEE802.3
Phone Interface					
Physical Interface	RJ11	RJ11	RJ11	RJ11	RJ11
Voice Bandwidth	8KHZ	8KHZ	8KHZ	8KHZ	8KHZ
Special Function	support call-showing function, support H-F	support the call display, with hands-free function	support the call display, with hands-free function	support call-showing function, support H-F	support call-showing function, support H-F
Working Modes	point to point hotline mode FXS-FXO	point to point hotline mode FXS-FXO	point to point hotline mode FXS-FXO	point to point hotline mode FXS-FXO	point to point hotline mode FXS-FXO
Optical Interface					
Connector	FC, ST, SC (optional)	FC, ST, SC (optional)	FC, ST, SC (optional)	FC, ST, SC (optional)	FC, ST, SC (optional)
Fiber Type	50/125u multimode, 62.5/125u multimode, 9/125u singlemode	"50/125u multimode, 62.5/125u multimode, 9/125u singlemode"	"50/125u multimode, 62.5/125u multimode, 9/125u singlemode"	"50/125u multimode, 62.5/125u multimode, 9/125u singlemode"	"50/125u multimode, 62.5/125u multimode, 9/125u singlemode"
Transmission Distance	0~550M (MM)/0~80km (SM) (default distance is 20km)	0~550M (MM)/0~80KM (SM) (Default distance is 20km)	0~550M (MM)/0~80KM (SM) (Default distance is 20km)	0~550M (MM)/0~80KM (SM) (Default distance is 20km)	0~550M (MM)/0~80KM (SM) (Default distance is 20km)
Working Environment					
Working Temperature	-15°C~65°C	-15°C~65°C	-15°C~65°C	-15°C~65°C	-15°C~65°C
Storage Environment	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C
Relative Humidity	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)	5%~95% (no condensation)
Power Supply Voltage	DC5V 2A	DC5V 2A	DC5V 2A	DC5V 2A	DC5V 3A
Dimensions					
Size (W*H*D)	423*230*90 (mm)	423*230*90 (mm)	423*230*90 (mm)	423*230*90 (mm)	483*220*44 (mm)