

CP-1604X

16+4 Port Industrial Managed PoE+ L3 Switch with 10G Uplink



- 16x Gigabit Ethernet ports with 8x IEEE 802.3at PoE+
- 4x 1/10 Gigabit Ethernet SFP+ Slot
- Built for harsh environments and wide temperature range application
- RSTP, MSTP, ERPS, LACP for Network Redundancy
- QoS CoS/DSCP to increase determinism
- Supports IGMP Snooping v1/v2/v3, up to 512 groups
- DHCP Relay Option 82 for policies IP address assignment
- SNMP v1/v2c/v3 for network management
- Supports Storm Protection
- USB storage for configuration-free replacement
- Supports industrial automation protocols Ethernet/IP and Modbus TCP
- Supports PoE PD Alive Check Function for PoE Device Power Recycle

Specifications

Technology

- IEEE 802.3 10BaseT
- IEEE 802.3u 100BaseTX
- IEEE 802.3ab 1000BaseT
- IEEE 802.3ae 10GBase over Fiber
- IEEE 802.3x Flow Control
- IEEE 802.3af Power over Ethernet
- IEEE 802.3at PoE+
- IEEE 802.3az Energy-Efficient Ethernet
- IEEE 802.3ad/802.1AX LACP

Standards

- IEEE 802.1D Spanning Tree Protocol
- IEEE 802.1w Rapid STP
- IEEE 802.1s Multiple STP
- ITU-T G.8032 / Y.1344 ERPS
- IEEE 802.1Q VLAN Tagging
- IEEE 802.1ad Stacked VLANs
- IEEE 802.1p Class of Service
- IEEE 802.1X Network Authentication
- IEEE 802.1AB LLDP
- IEEE 1588 PTP

Processing Type Store and Forward

Switch Properties

Switch Fabric 112Gbps

Priority Queues 8 Queues

Jumbo Frame 9216bytes

MAC Table Size 16K

Packet Buffer 12Mbits

VLAN Table Size 4094

IGMP Group 512

ACL Group 512

VLAN IP Entries 64

Routing Entries (IPv4/IPv6) 512/256 host, 64/64 LPM

Software Feature

Network Redundancy RSTP, MSTP, G.8032 ERPSv2, Port Trunking with LACP

Security 802.1X, RADIUS, TACACS+, SSL, SSH

Management IPv4, IPv6, Web, Telnet, Serial Console, CLI, SNMP v1/v2c/v3, uPnP

Diagnostics RMON, SNMP Inform/Trap, Syslog, SMTP, Port Mirroring, LLDP, DDM

Configuration DHCP Server/Client, Relay Option 82, TFTP, USB

Filter 802.1Q VLAN, Q-in-Q, IGMP Snooping v1/v2/v3, IGMP Querier, Independent Vlan Learning

Time Sync. NTP, IEEE1588v2 OC (Software Timestamp), BC (Software Timestamp), TC (Hardware Timestamp)

QoS CoS, DSCP, WRR/SPQ Queuing, Storm Protection

PoE Powering Status, PoE Monitoring,

Scheduling, PD Alive Check, PoE Priority

Polarity Protected

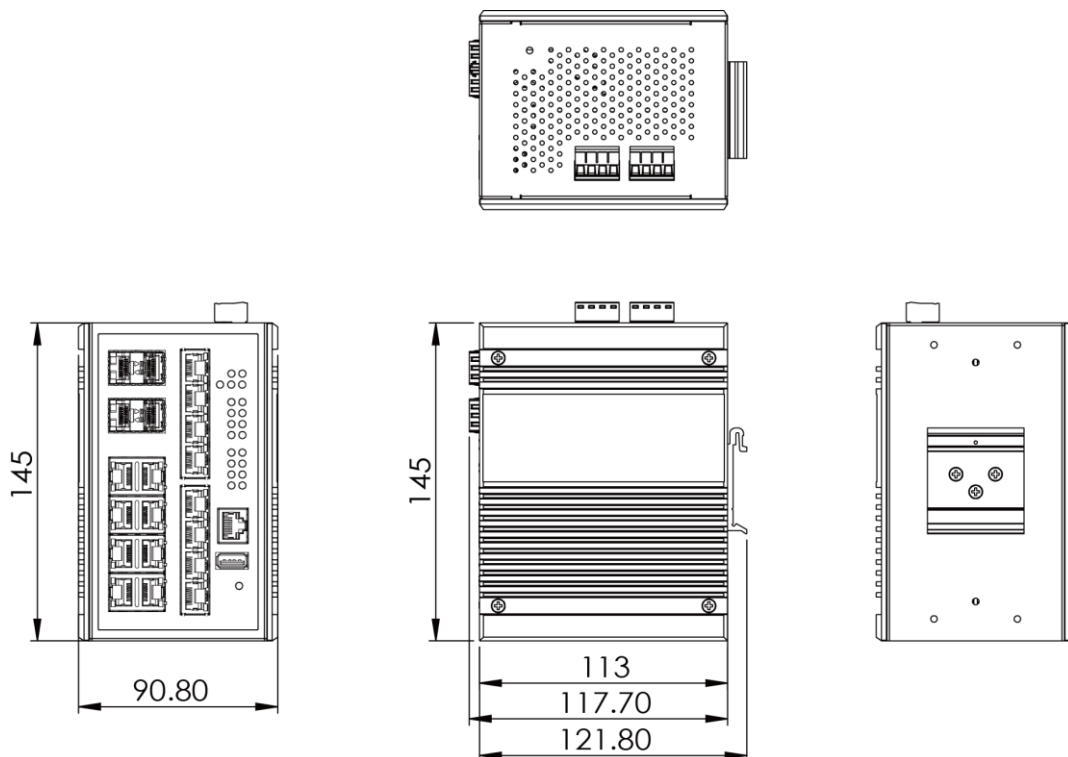
Industrial Profiles	Ethernet/IP, Modbus TCP, Profinet
L3 Switching	Static Routing, RIP v1/v2, RIPng, OSPF v2, OSPF v3, VRRP v2
Interface	
RJ45 Port	16x 10/100/1000T(x) with 8x PoE+, auto negotiation speed duplex mode, auto MDI/MDI-X
Fiber Port	4x 1/10 Gigabit Ethernet SFP+ Slot
PoE Pin Out	V+, V+, V-, V-, for pin 1, 2, 3, 6, Endspan, MDI Mode A
LED Indicators	Per unit: PWR1, PWR2, Fault, Ring Master, Ring State Ports: Link/Active with highest speed(Green), low speed(Amber) PoE: Output Power
Alarm Contact	1x relay output with current carrying capacity of 1A @ 24 VDC
Digital Inputs	1x isolated input from the electronics. +13 to +30V for state "1" -30 to +3V for state "0" Max. input current: 8mA
Button	Multiple functions reset button
Serial Console	1x RS232 in RJ45 connector with console cable, 115.2Kbps, 8N1
Storage	1x USB 2.0 storage for firmware update, configuration backup, restore, boot up and syslog
Power Requirements	
Operation Voltage	48-57VDC, redundant dual inputs, >50VDC for PoE+ output recommended
Connection	1x removable 4-contact terminal block
Power Consumption	20W without PDs' consumption
PoE Power Budget	Max. 240 W for total PD consumption, Max. 30 W per PoE port
Protection	Overload Current Protected, Reverse

Mechanical Construction	
Enclosure	Aluminum
Protection Class	IP30
Dimensions	91x145x118 mm (WxHxD)
Weight	1.4 kg
Mounting	DIN-Rail Mounting, Optional Wall Mounting Kits
Environmental Limits	
Operating Temperature	Standard: -10°C ~ 60°C (14°F ~ 140°F) Extended: -40°C ~ 75°C (-40°F ~ 167°F) For 10G SFP+: -40 ~ 60°C (32°F ~ 140°F)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Ambient Relative Humidity	5 to 95%, (Non-Condensing)

Regulatory Approvals	
EMI	FCC Part 15 Subpart B Class A CE EN 55032 Class A
EMS	IEC61000-4-2 (ESD) IEC61000-4-3 (RS) IEC61000-4-4 (EFT) IEC61000-4-5 (Surge) IEC61000-4-6 (CS) IEC61000-4-8 (Magnetic Field)
Free Fall	IEC60068-2-32
Shock	IEC60068-2-27
Vibration	IEC60068-2-6
Green	RoHS Compliant
Certifications	IEC 61000-6-2 IEC 61000-6-4
MTBF	>100,000 hours
Warranty	5 Years

Features with star(*) implies those are under development.
In a continuing effort of improvement and updated technology, product specifications are subject to change without notice.

Dimensions (unit = mm)



Ordering Information

CP-1604X 16+4 Port Industrial Managed PoE+ L3 Switch with 10G Uplink
 - 16x 10/100/1000T(x) with 8x 30W PSE + 4x 1/10 Gigabit Ethernet SFP+ Slot
 - Operating Temperature: -10°C ~ 60°C (14°F ~ 140°F)

CP-1604X-T 16+4 Port Industrial Managed PoE+ L3 Switch with 10G Uplink
 - 16x 10/100/1000T(x) with 8x 30W PSE + 4x 1/10 Gigabit Ethernet SFP+ Slot
 - Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F)

Optional Accessories

NDR-240-48 240W Industrial DIN-Rail Power Supply, 48VDC (metal case)

NDR-480-48 480W Industrial DIN-Rail Power Supply, 48VDC (metal case)