

# CP-2404X

## 24+4 Port Industrial Managed PoE+ L3 Switch with 10G Uplink



- 24x Gigabit Ethernet ports with 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

|           |                                        |
|-----------|----------------------------------------|
| Standards | 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              |
|           | 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

|                        |           |
|------------------------|-----------|
| <b>Switch Fabric</b>   | 128Gbps   |
| <b>Priority Queues</b> | 8 Queues  |
| <b>Jumbo Frame</b>     | 9216bytes |
| <b>MAC Table Size</b>  | 16K       |
| <b>Packet Buffer</b>   | 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                                                                                                                                  |
| <b>Industrial Profiles</b> | Ethernet/IP, Modbus TCP, Profinet                                                                                                                                         |
| <b>L3 Switching</b>        | Static Routing, RIP v1/v2, RIPng, OSPF v2, OSPF v3, VRRP v2                                                                                                               |
| <b>Interface</b>           |                                                                                                                                                                           |
| <b>RJ45 Port</b>           | 24x 10/100/1000T(x) with PoE+, auto negotiation speed duplex mode, auto MDI/MDI-X                                                                                         |
| <b>Fiber Port</b>          | 4x 1/10 Gigabit Ethernet SFP+ Slot                                                                                                                                        |
| <b>PoE Pin Out</b>         | V+, V+, V-, V-, for pin 1, 2, 3, 6, Endspan, MDI Mode A                                                                                                                   |
| <b>LED Indicators</b>      | <b>Per unit:</b> PWR1, PWR2(AC2/DC2), Fault, Ring Master, Ring State<br><b>Ports:</b> Link/Active with highest speed(Green), low speed(Amber)<br><b>PoE:</b> Output Power |
| <b>Alarm Contact</b>       | 1x relay output with current carrying capacity of 1A @ 24 VDC                                                                                                             |
| <b>Digital Inputs</b>      | 1x isolated input from the electronics.<br>+13 to +30V for state "1"<br>-30 to +3V for state "0"<br>Max. input current: 8mA                                               |
| <b>Button</b>              | Multiple functions reset button                                                                                                                                           |
| <b>Serial Console</b>      | 1x RS232 in RJ45 connector with console cable, 115.2Kbps, 8N1                                                                                                             |
| <b>Storage</b>             | 1x USB 2.0 storage for firmware update, configuration backup, restore, boot up and syslog                                                                                 |
| <b>Power Requirements</b>  |                                                                                                                                                                           |
| <b>Operation Voltage</b>   | 100~240VAC, 48~57VDC, redundant dual inputs, >50VDC for PoE+ output recommended                                                                                           |
| <b>Connection</b>          | AC socket, DC 4-pin terminal block                                                                                                                                        |
| <b>Power Consumption</b>   | 0.45A@48VDC; 0.33A@110VAC without PDs' consumption                                                                                                                        |
| <b>PoE Power</b>           | Max. 348W@AC with derating (50°C to                                                                                                                                       |

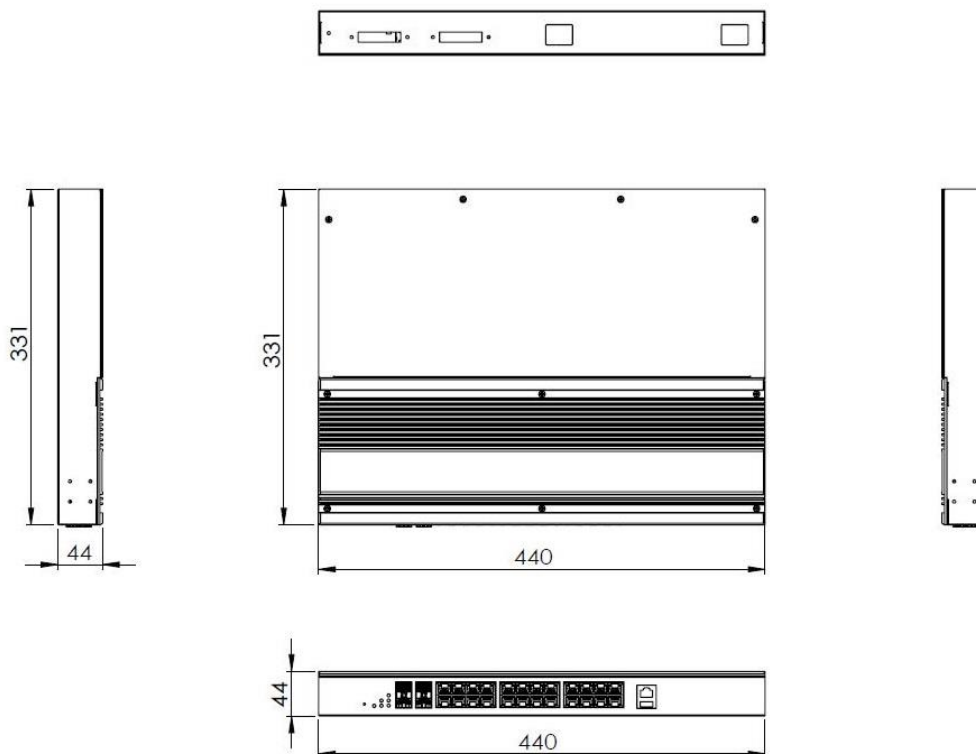
Features with star(\*) implies those are under development.

In a continuing effort of improvement and updated technology, product specifications are subject to change without notice.

|                                  |                                                                                                                            |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| <b>Budget</b>                    | 70°C, 2.5%/°C) or 720W@DC, for total PD consumption, Max. 30 W per PoE port                                                |
| <b>Protection</b>                | Overload Current Protected, Reverse Polarity Protected                                                                     |
| <b>Mechanical Construction</b>   |                                                                                                                            |
| <b>Enclosure</b>                 | Aluminum / Steel metal                                                                                                     |
| <b>Protection Class</b>          | IP30                                                                                                                       |
| <b>Dimensions</b>                | 440x44x331 mm (WxHxD)                                                                                                      |
| <b>Weight</b>                    | 6.00 kg                                                                                                                    |
| <b>Mounting</b>                  | Rack Mounting                                                                                                              |
| <b>Environmental Limits</b>      |                                                                                                                            |
| <b>Operating Temperature</b>     | Standard: -20°C ~ 60°C (-4°F ~ 140°F)<br>Extended: -40°C ~ 75°C (-40°F ~ 167°F)<br>For 10G SFP+: -40 ~ 60°C (32°F ~ 140°F) |
| <b>Storage Temperature</b>       | -40°C ~ 85°C (-40°F ~ 185°F)                                                                                               |
| <b>Ambient Relative Humidity</b> | 5 to 95%, (Non-Condensing)                                                                                                 |

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

## Dimensions (unit = mm)



## Ordering Information

|                       |                                                                                                                                                                                                                                                     |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CP-2404X-1AC</b>   | 24+4 Port Industrial Managed PoE+ L3 Switch with 10G Uplink<br>- 24x 10/100/1000T(x) with 30W PSE + 4x 1/10 Gigabit Ethernet SFP+ Slot<br>- Operating Temperature: -20°C ~ 60°C (-4°F ~ 140°F)<br>- 1x 90~264VAC Power Input                        |
| <b>CP-2404X-1AC-T</b> | 24+4 Port Industrial Managed PoE+ L3 Switch with 10G Uplink<br>- 24x 10/100/1000T(x) with 30W PSE + 4x 1/10 Gigabit Ethernet SFP+ Slot<br>- Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F)<br>- 1x 90~264VAC Power Input                       |
| <b>CP-2404X-AD</b>    | 24+4 Port Industrial Managed PoE+ L3 Switch with 10G Uplink<br>- 24x 10/100/1000T(x) with 30W PSE + 4x 1/10 Gigabit Ethernet SFP+ Slot<br>- Operating Temperature: -20°C ~ 60°C (-4°F ~ 140°F)<br>- 1x 90~264VAC Power and 1x 48~57VDC Power Input  |
| <b>CP-2404X-AD-T</b>  | 24+4 Port Industrial Managed PoE+ L3 Switch with 10G Uplink<br>- 24x 10/100/1000T(x) with 30W PSE + 4x 1/10 Gigabit Ethernet SFP+ Slot<br>- Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F)<br>- 1x 90~264VAC Power and 1x 48~57VDC Power Input |
| <b>CP-2404X-DC-T</b>  | 24+4 Port Industrial Managed PoE+ L3 Switch with 10G Uplink<br>- 24x 10/100/1000T(x) with 30W PSE + 4x 1/10 Gigabit Ethernet SFP+ Slot<br>- Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F)<br>- 2x 48~57VDC Robust Isolation Power Input       |

## Optional Accessories

|                   |                                                           |
|-------------------|-----------------------------------------------------------|
| <b>NDR-240-48</b> | 240W Industrial DIN-Rail Power Supply, 48VDC (metal case) |
| <b>NDR-480-48</b> | 480W Industrial DIN-Rail Power Supply, 48VDC (metal case) |