

# CT-0802G

## 8+2 Port Industrial Managed PoE+ Booster Gigabit L3 Switch



- 8x Gigabit Ethernet ports with IEEE 802.3at PoE+
- 2x 1000F(x) 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
- Power Boost for PoE+

### Specifications

#### Technology

- IEEE 802.3 10BaseT
- IEEE 802.3u 100BaseTX
- IEEE 802.3ab 1000BaseT
- IEEE 802.3z 1000BaseX
- 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

#### Standards

**Processing Type** Store and Forward

#### Switch Properties

|                        |           |
|------------------------|-----------|
| <b>Switch Fabric</b>   | 20Gbps    |
| <b>Priority Queues</b> | 8 Queues  |
| <b>Jumbo Frame</b>     | 9216bytes |
| <b>MAC Table Size</b>  | 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  |
| <b>PoE</b>                 | 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               |

## Interface

|                       |  |
|-----------------------|--|
| <b>RJ45 Port</b>      | 8x 10/100/1000T(x) with PoE+, auto negotiation speed duplex mode, auto MDI/MDI-X   |
| <b>Fiber Port</b>     | 2x 1000F(x) 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, 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  |

## Power Requirements

|                          |   |
|--------------------------|---|
| <b>Operation Voltage</b> | 12-57VDC, redundant dual inputs, >50VDC for PoE+ output recommended |
| <b>Connection</b>        | 1x removable 4-contact terminal block                               |
| <b>Power Consumption</b> | 0.90A@24VDC without PDs' consumption                                |
| <b>PoE Power</b>         | Max. 30 W per PoE port. Max. total output                           |

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.

**Budget** power for PD: 190W@24V input, 90W@12V input.

**Protection** Overload Current Protected, Reverse Polarity Protected

## Mechanical Construction

|                         |  |
|-------------------------|--|
| <b>Enclosure</b>        | Aluminum                                       |
| <b>Protection Class</b> | IP30   |
| <b>Dimensions</b>       | 72x145x118 mm (WxHxD)                          |
| <b>Weight</b>           | 1.02 kg  |
| <b>Mounting</b>         | DIN-Rail Mounting, Optional Wall Mounting Kits |

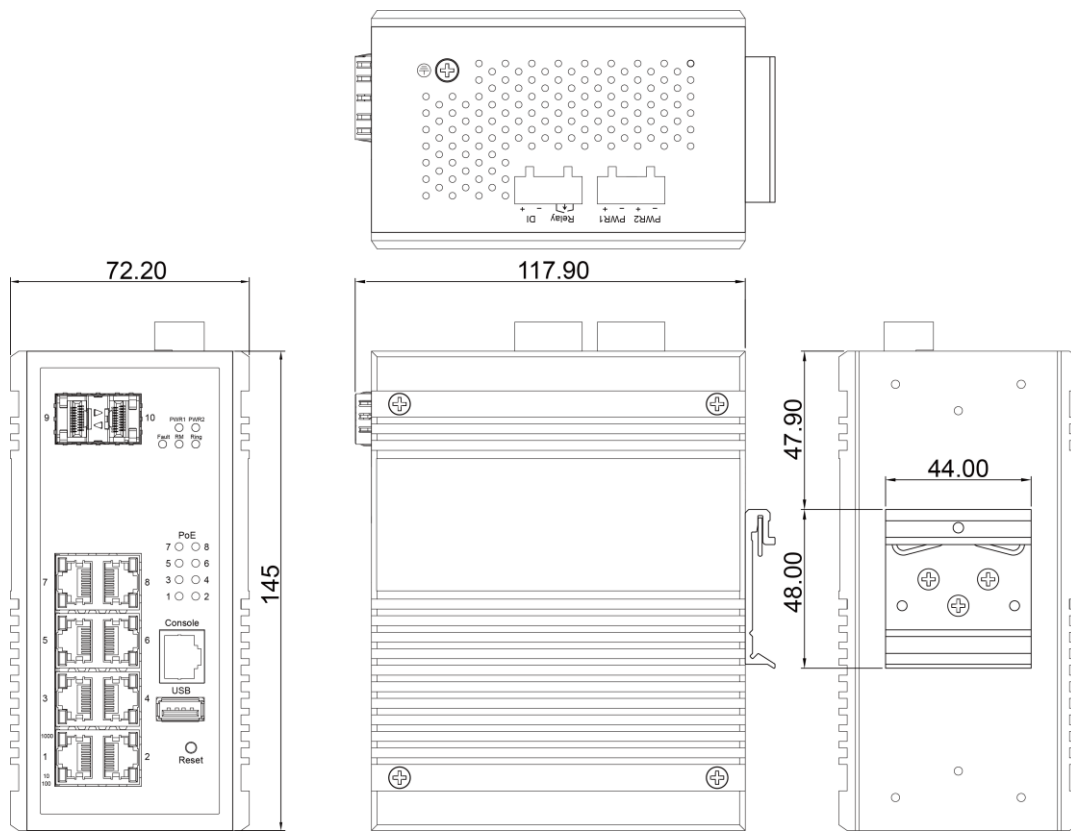
## Environmental Limits

|                                  |   |
|----------------------------------|---|
| <b>Operating Temperature</b>     | Standard: -10°C ~ 60°C (14°F ~ 140°F)<br>Extended: -40°C ~ 75°C (-40°F ~ 167°F) |
| <b>Storage Temperature</b>       | -40°C ~ 85°C (-40°F ~ 185°F)  |
| <b>Ambient Relative Humidity</b> | 5 to 95%, (Non-Condensing)  |

## Regulatory Approvals

|                       |   |
|-----------------------|---|
| <b>EMI</b>            | 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>Certifications</b> | EN 50121-4  |
| <b>MTBF</b>           | >100,000 hours  |
| <b>Warranty</b>       | 5 Years   |

## Dimensions (unit = mm)



## Ordering Information

|                   |   |
|-------------------|---|
| <b>CT-0802G</b>   | 8+2 Port Industrial Managed PoE+ Booster Gigabit L3 Switch<br>- 8x 10/100/1000T(x) with 30W PSE + 2x 1000F(x) SFP Slot<br>- Operating Temperature: -10°C ~ 60°C (14°F ~ 140°F)  |
| <b>CT-0802G-T</b> | 8+2 Port Industrial Managed PoE+ Booster Gigabit L3 Switch<br>- 8x 10/100/1000T(x) with 30W PSE + 2x 1000F(x) SFP Slot<br>- Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F) |

## Optional Accessories

|                   |   |
|-------------------|---|
| <b>NDR-240-24</b> | 240W Industrial DIN-Rail Power Supply, 24VDC (metal case) |
| <b>NDR-480-24</b> | 480W Industrial DIN-Rail Power Supply, 24VDC (metal case) |