



## CBG2-0501-SFP Series

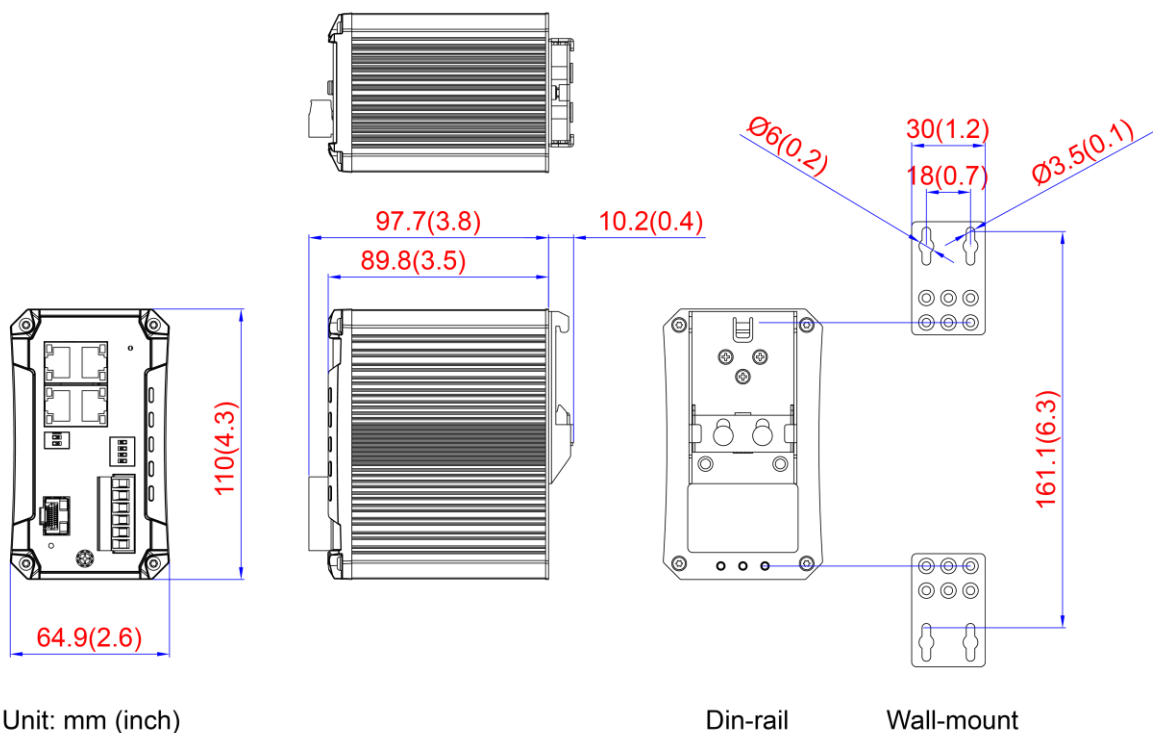
5-Port Industrial Compact Gigabit Ethernet 802.3bt PoE Switch  
 -4\*10/100/1000BASE-T with bt PoE-PSE (90W/Port) +  
 1\*100/1000BASE-X SFP Slots



- 4-port 10/100/1000BASE-T Ethernet with IEEE 802.3af/at/bt compliant PoE, 90W/port
- 1-port dual rate 100/1000BASE-X SFP Slots
- Safe PoE Disable
- PD Remote Reset Technology (PRRT) Function Support
- Built-in Relay Output Warning for Power Failure
- Redundant power inputs design
- Operating Temperature range - STD: -10°C ~ 65°C, EOT: -40°C ~ 75°C



### Dimension



## Specification

### Technology

|           |                                                     |
|-----------|-----------------------------------------------------|
| Standards | IEEE 802.3 10BASE-T Ethernet                        |
|           | IEEE 802.3u 100BASE-TX and 100BASE-FX Fast Ethernet |
|           | IEEE 802.3ab 1000BASE-T Gigabit Ethernet            |
|           | IEEE 802.3z 1000BASE-X Gigabit Fiber                |
|           | IEEE 802.3af/at/bt Power over Ethernet              |

|                 |                   |
|-----------------|-------------------|
| Processing Type | Store and Forward |
|-----------------|-------------------|

|              |                                                      |
|--------------|------------------------------------------------------|
| Flow Control | IEEE 802.3x flow control, back pressure flow control |
|--------------|------------------------------------------------------|

### Switch Properties

|                               |                                        |
|-------------------------------|----------------------------------------|
| Switching Fabric (Back-Plane) | 10Gbps                                 |
| Memory Buffer                 | 1Mbits                                 |
| MAC Table Size                | 8K                                     |
| Jumbo Frame                   | 10Kbytes                               |
| Transfer Rate                 | 14,880pps for Ethernet port            |
|                               | 148,800pps for Fast Ethernet port      |
|                               | 1,488,000pps for Gigabit Ethernet port |

### Interface

|                |                                                                                                                       |
|----------------|-----------------------------------------------------------------------------------------------------------------------|
| RJ45 Ports     | 4*10/100/1000BASE-T with bt PoE-PSE (90W/Port)<br>Auto-Negotiation, Full/Half Duplex, Auto-MDI/MDI-X                  |
| PoE Pin Out    | V-, V-, V+, V+, for pin 1, 2, 3, 6; V+, V+, V-, V-, for pin 4, 5, 7, 8<br>*Support Modes: Mode A, Mode B, 4-Pair Mode |
| Fiber Port     | 1*100/1000BASE-X SFP Slots                                                                                            |
| Wavelength     | Depends on SFP modules                                                                                                |
| LED Indicators | System: Power 1, Power 2, Fault                                                                                       |
|                | Ethernet ports: Speed/Link/Active                                                                                     |
|                | PoE: On-connected to PD Devices                                                                                       |
|                | SFP: Link/Active                                                                                                      |
| Relay Contact  | PoE Load: 50%, 70%, 90%                                                                                               |
| Network Cable  | 24 VDC, 1A resistive                                                                                                  |
|                | 10BASE-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m)                                                |
|                | 100BASE-TX: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm (100m)                                                    |
| Dip Switch     | 1000BASE-T: 4-pair UTP/STP Cat.5/5E cable; EIA/TIA-568 100-ohm (100m)                                                 |
|                | PoE Switch: Control PoE Function by Port                                                                              |
|                | PRRT Switch: PD Remote Reset Technology (PRRT) Enable/ Disable                                                        |
|                | SFP Switch: 100Mbps/1000Mbps                                                                                          |

### Power Requirements

|                             |                                                                              |
|-----------------------------|------------------------------------------------------------------------------|
| Input Voltage               | Dual 48-55VDC redundant power inputs                                         |
|                             | * For IEEE802.3bt application, power supply not less than 53V is recommended |
| Power Connection            | 1*removable 6-contact terminal block                                         |
| Overload Current Protection | Present (Slow-Blow Fuse)                                                     |
| Reverse Polarity Protection | Present                                                                      |
| System Power Consumption    | Max. 6.3W full loading                                                       |
| Max. PoE Power Budget       | 240W@48-55VDC                                                                |

### Mechanical Characteristics

|                        |                                                                 |
|------------------------|-----------------------------------------------------------------|
| Housing                | Metal, IP40 protection                                          |
| Dimensions (W x H x D) | 64.9 x 110 x 89.8 mm (2.6x 4.3 x 3.5 inch)                      |
| Weight                 | Unit weight: 0.884kg (1.95lb), Shipping weight: 1.11kg (2.45lb) |
| Mounting               | DIN-Rail Mounting, Wall Mounting                                |

### Environmental Limits

|                           |                                   |
|---------------------------|-----------------------------------|
| Operating Temperature     | STD: -10°C ~ 65°C (14°F ~ 149°F)  |
|                           | EOT: -40°C ~ 75°C (-40°F ~ 167°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,<br>CE EN55032/EN61000-6-4 Class A                                                                                                  |
| EMS                                                                                                           | CE EN55035/EN61000-6-2<br>IEC61000-4-2 (ESD), IEC61000-4-3 (RS), IEC61000-4-4 (EFT),<br>IEC61000-4-5 (Surge), IEC61000-4-6 (CS),<br>IEC61000-4-8 (Magnetic Field) |
| Free Fall                                                                                                     | IEC60068-2-32                                                                                                                                                     |
| Shock                                                                                                         | IEC60068-2-27                                                                                                                                                     |
| Vibration                                                                                                     | IEC60068-2-6                                                                                                                                                      |
| Green                                                                                                         | RoHS Compliant                                                                                                                                                    |
| Safety                                                                                                        | UL61010-1, UL61010-2-201                                                                                                                                          |
| MTBF (Telcordia SR-332,<br>Issue 3, GB, 25°C)                                                                 | 519,846 hrs.                                                                                                                                                      |
| Warranty                                                                                                      | 5 Years                                                                                                                                                           |
| NOTE: Due to continuous improvement, all product specifications are subject to change without further notice. |                                                                                                                                                                   |

| Packet Contents                    | pcs |
|------------------------------------|-----|
| CBG2-0501-SFP(-T) Ethernet switch  | 1   |
| Wall-mount installation kits       | 2   |
| Quick installation guide (printed) | 1   |

| Model Name      | 10/100/1000<br>bt PoE++ | 100/1000<br>SFP | Power Inputs | PoE Max.<br>Power Budget | Operating<br>Temperature |
|-----------------|-------------------------|-----------------|--------------|--------------------------|--------------------------|
| CBG2-0501-SFP   | 4                       | 1               | 48-55VDC     | 240W                     | -10°C ~ 65°C             |
| CBG2-0501-SFP-T | 4                       | 1               | 48-55VDC     | 240W                     | -40°C ~ 75°C             |

| Ordering Information |                                                                                                                                                                       |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CBG2-0501-SFP        | 5-Port Industrial Compact Gigabit Ethernet 802.3bt PoE Switch<br>-4*10/100/1000BASE-T with bt PoE-PSE (90W/Port) + 1*100/1000BASE-X SFP Slots, 48-55VDC, -10°C ~ 65°C |
| CBG2-0501-SFP-T      | 5-Port Industrial Compact Gigabit Ethernet 802.3bt PoE Switch<br>-4*10/100/1000BASE-T with bt PoE-PSE (90W/Port) + 1*100/1000BASE-X SFP Slots, 48-55VDC, -40°C ~ 75°C |

| Optional Accessories - Power Supply Series |                                                                                                                    |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| 75W Power Supply Series                    |                                                                                                                    |
| EDR-75-48                                  | 75W Industrial DIN-Rail Power Supply, 48VDC/1.6A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 60°C  |
| NDR-75-48                                  | 75W Industrial DIN-Rail Power Supply, 48VDC/1.6A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 70°C  |
| 120W Power Supply Series                   |                                                                                                                    |
| EDR-120-48                                 | 120W Industrial DIN-Rail Power Supply, 48VDC/2.5A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 60°C |
| NDR-120-48                                 | 120W Industrial DIN-Rail Power Supply, 48VDC/2.5A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 70°C |
| 240W Power Supply Series                   |                                                                                                                    |
| NDR-240-48                                 | 240W Industrial DIN-Rail Power Supply w/ PFC, 48VDC/5A, Universal 90-264VAC/127-370VDC power input,                |

Metal, -20°C ~ 70°C

#### 480W Power Supply Series

|            |                                                                                                                          |
|------------|--------------------------------------------------------------------------------------------------------------------------|
| NDR-480-48 | 480W Industrial DIN-Rail Power Supply w/ PFC, 48VDC/10A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 70°C |
|------------|--------------------------------------------------------------------------------------------------------------------------|

## OPTIONAL ACCESSORIES - SFP Transceiver Series

### 100Mbps Multi-mode SFP Transceiver Modules Series

|            |                                                            |
|------------|------------------------------------------------------------|
| SFP-TM02   | 100Mbps SFP Transceiver/LC, MMF, 2KM, 1310nm, 0°C ~ 70°C   |
| SFP-TM02-T | 100Mbps SFP Transceiver/LC, MMF, 2KM, 1310nm, -40°C ~ 85°C |

### 100Mbps Single-mode SFP Transceiver Modules Series

|               |                                                                                 |
|---------------|---------------------------------------------------------------------------------|
| SFP-TS20-WA   | 100Mbps BiDi SFP Transceiver/LC, SMF, 20KM, TX: 1310nm/RX: 1550nm, 0°C ~ 70°C   |
| SFP-TS20-WA-T | 100Mbps BiDi SFP Transceiver/LC, SMF, 20KM, TX: 1310nm/RX: 1550nm, -40°C ~ 85°C |
| SFP-TS20-WB   | 100Mbps BiDi SFP Transceiver/LC, SMF, 20KM, TX: 1550nm/RX: 1310nm, 0°C ~ 70°C   |
| SFP-TS20-WB-T | 100Mbps BiDi SFP Transceiver/LC, SMF, 20KM, TX: 1550nm/RX: 1310nm, -40°C ~ 85°C |
| SFP-TS30      | 100Mbps SFP Transceiver/LC, SMF, 30KM, 1310nm, 0°C ~ 70°C                       |
| SFP-TS30-T    | 100Mbps SFP Transceiver/LC, SMF, 30KM, 1310nm, -40°C ~ 85°C                     |

### 1Gbps Multi-mode SFP Transceiver Modules Series

|            |                                                          |
|------------|----------------------------------------------------------|
| SFP-GM00   | 1Gbps SFP Transceiver/LC, MMF, 550M, 850nm, 0°C ~ 70°C   |
| SFP-GM00-T | 1Gbps SFP Transceiver/LC, MMF, 550M, 850nm, -40°C ~ 85°C |
| SFP-GM02   | 1Gbps SFP Transceiver/LC, MMF, 2KM, 1310nm, 0°C ~ 70°C   |
| SFP-GM02-T | 1Gbps SFP Transceiver/LC, MMF, 2KM, 1310nm, -40°C ~ 85°C |

### 1Gbps Single-mode SFP Transceiver Modules Series

|                |                                                                                  |
|----------------|----------------------------------------------------------------------------------|
| SFP-GS10       | 1Gbps SFP Transceiver/LC, SMF, 10KM, 1310nm, 0°C ~ 70°C                          |
| SFP-GS10-T     | 1Gbps SFP Transceiver/LC, SMF, 10KM, 1310nm, -40°C ~ 85°C                        |
| SFP-GS10-WA    | 1Gbps BiDi SFP Transceiver/LC, SMF, 10KM, TX: 1310nm/RX: 1550nm, 0°C ~ 70°C      |
| SFP-GS10-WA-T  | 1Gbps BiDi SFP Transceiver/LC, SMF, 10KM, TX: 1310nm/RX: 1550nm, -40°C ~ 85°C    |
| SFP-GS10-WB    | 1Gbps BiDi SFP Transceiver/LC, SMF, 10KM, TX: 1550nm/RX: 1310nm, 0°C ~ 70°C      |
| SFP-GS10-WB-T  | 1Gbps BiDi SFP Transceiver/LC, SMF, 10KM, TX: 1550nm/RX: 1310nm, -40°C ~ 85°C    |
| SFP-GS20       | 1Gbps SFP Transceiver/LC, SMF, 20KM, 1310nm, 0°C ~ 70°C                          |
| SFP-GS20-T     | 1Gbps SFP Transceiver/LC, SMF, 20KM, 1310nm, -40°C ~ 85°C                        |
| SFP-GS40       | 1Gbps SFP Transceiver/LC, SMF, 40KM, 1310nm, 0°C ~ 70°C                          |
| SFP-GS40-T     | 1Gbps SFP Transceiver/LC, SMF, 40KM, 1310nm, -40°C ~ 85°C                        |
| SFP-GS40-WA    | 1Gbps BiDi SFP Transceiver/LC, SMF, 40KM, TX: 1310nm/RX: 1550nm, 0°C ~ 70°C      |
| SFP-GS40-WB    | 1Gbps BiDi SFP Transceiver/LC, SMF, 40KM, TX: 1550nm/RX: 1310nm, 0°C ~ 70°C      |
| SFP-GS60       | 1Gbps SFP Transceiver/LC, SMF, 60KM, 1550nm, 0°C ~ 70°C                          |
| SFP-GS60-T     | 1Gbps SFP Transceiver/LC, SMF, 60KM, 1550nm, -40°C ~ 85°C                        |
| SFP-GS60-WA    | 1Gbps BiDi SFP Transceiver/LC, SMF, 60KM, TX: 1310nm/RX: 1550nm, 0°C ~ 70°C      |
| SFP-GS60-WB    | 1Gbps BiDi SFP Transceiver/LC, SMF, 60KM, TX: 1550nm/RX: 1310nm, 0°C ~ 70°C      |
| SFP-GS80       | 1Gbps SFP Transceiver/LC, SMF, 80KM, 1550nm, 0°C ~ 70°C                          |
| SFP-GS80-T     | 1Gbps SFP Transceiver/LC, SMF, 80KM, 1550nm, -40°C ~ 85°C                        |
| SFP-GSH2-DDM   | 1Gbps SFP Transceiver/LC, SMF, 120KM, 1550nm, 0°C ~ 70°C, Support DDM function   |
| SFP-GSH2-DDM-T | 1Gbps SFP Transceiver/LC, SMF, 120KM, 1550nm, -40°C ~ 85°C, Support DDM function |

### Copper SFP Transceiver Modules Series

|             |                                                    |
|-------------|----------------------------------------------------|
| SFP-GC00-SG | SFP to 10/100/1000BASE-T copper Module, 0°C ~ 70°C |
| SFP-GC00-SE | SFP to 1000BASE-T copper Module, 0°C ~ 70°C        |