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# BSB618 Industrial Unmanaged Ethernet Switch

with 7 × 10 / 100Base - T(x) Port  
and BPL (Broadband Power Line) Link



# Main Features

- Supports 7 × 10 / 100Base - T (X) ports + 1 × BPL link
- 3 phase input, 110 V – 240 V / 50 - 60 Hz wide range power input
- Supports Full / Half-Duplex, auto MDI / MDI-X on each port
- Wide operating temperature range from -40 to 85 °C
- Rugged Metal IP-40 housing design

- DIN-Rail mounting
- Supports up to 30Mbps PHY rate on BPL with Up to 10 hops and 1000 nodes
- Up to 432 sub-carriers from 2 to 28MHz analog bandwidth
- Support LDPC-C FEC with 128-bit AES core
- Plug and play with Master/Slave selection via switch

# Technical Specifications

## Technology

|                        |   |
|------------------------|---|
| Ethernet Standards     | IEEE 802.3 for 10Base-T<br>IEEE 802.3u for 100Base-T(X)<br>IEEE 802.3x Flow Control |
| Mac Table              | 1K MAC address entry  |
| Processing             | Store-and-Forward   |
| Memory                 | 448K bits packet buffer memory  |
| Auto Power Saving Mode | Automatically enters this mode if no cable link is established.                     |

**BSB Series Industrial Unmanaged Ethernet Switches are designed for industrial-grade Ethernet, and particularly for facilities of rugged industry and infrastructure.**

BSB Series Industrial Unmanaged Ethernet Switches are tailored to perform various features such as wide temperature, wide range power input range... etc. Thus, BSB Series Industrial Unmanaged Ethernet Switches are the best choice for facility management, sewage treatment, power utility, telecommunication, transportation and all other applications that require reliable Ethernet connectivity.

REDZ Broadband Power Line (BPL) link allows device to communicate with full transparent TCP/IP standard over Low Voltage power lines and allows easy connection between TCP/IP based terminals without use of extra cables.



## BPL (Broadband Powerline) Technology

|                       |                                      |
|-----------------------|--------------------------------------|
| PHY Data Rate         | Up to 240 MHz                        |
| MAC Layer Protocol    | CSMA/CA                              |
| Modulation Technology | OFDM-432                             |
| VLAN                  | IEEE802.1q / IEEE802.1p / IEEE802.3d |

## Interface & Indicators

|                               |  |
|-------------------------------|--|
| Power indicator               | Power LED  |
| 10 / 100 TX RJ45              | Activity LEDs  |
| LEDs                          | <ul style="list-style-type: none"> <li>BPL Activity</li> <li>BPL Link</li> <li>Master Indication</li> </ul> <p><b>LED ON: Master    LED OFF: Slave</b></p> |
| Master / Slave Switch for BPL | Selection for BPL whether to operate as Master or Slave  |

## Physical & Environmental Characteristics

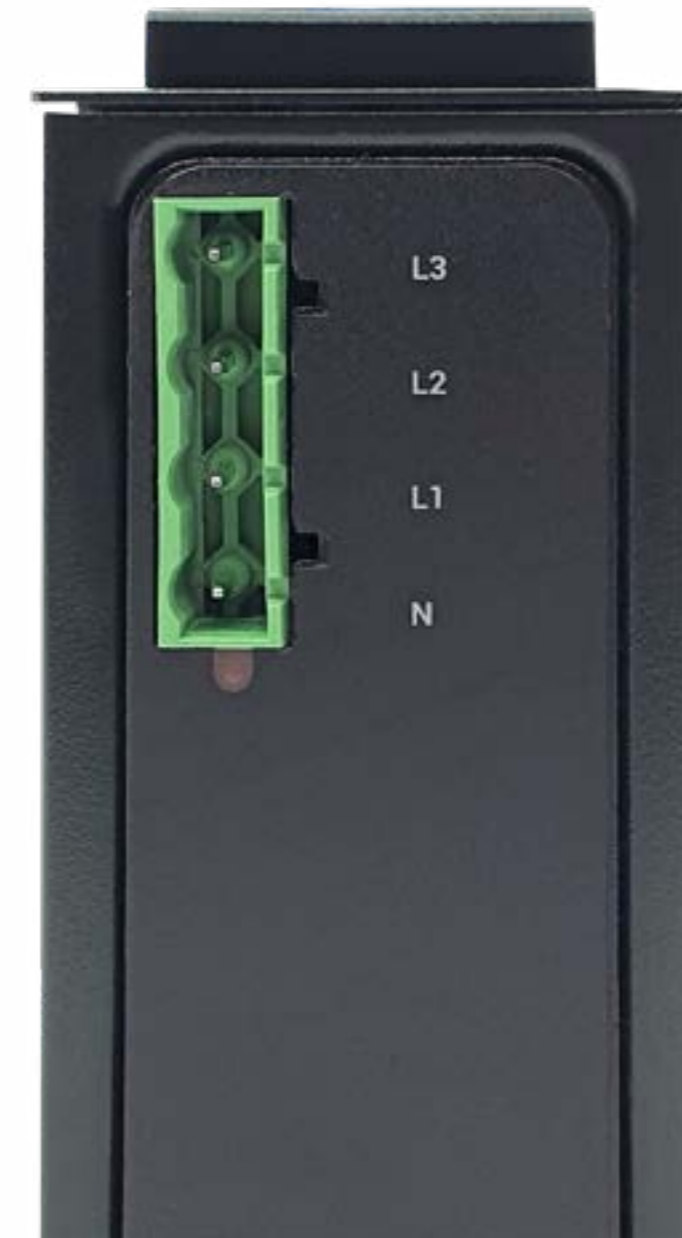
|                       |                              |
|-----------------------|------------------------------|
| Enclosure             | Metal, IP 40                 |
| Dimensions            | 43 × 95 × 124 (w × d × h) mm |
| Weight                | 382 gr                       |
| Storage Temperature   | – 65 to 150 °C               |
| Operating Temperature | – 40 to 85 °C                |
| Operating Humidity    | 5% to 95% Non-condensing     |

## Applied Standards

|           |   |
|-----------|---|
| EMI       | FCC Part 15, CISPR (EN55022) class A  |
| EMS       | EN61000-4-2 (ESD),<br>EN61000-4-3 (RS),<br>EN61000-4-4 (EFT),<br>EN61000-4-5 (Surge),<br>EN61000-4-6 (CS),<br>EN61000-4-8, EN61000-4-11 |
| Shock     | IEC60068-2-27   |
| Free Fall | IEC60068-2-32   |
| Vibration | IEC60068-2-6  |
| Safety    | EN60950   |
| Warranty  | 3 years   |

## Power

|                |   |
|----------------|---|
| Input Range    | 3 phase input, 110 V – 240 V / 50 – 60 Hz   |
| Power and Data | AC Power supply use L1-N only. Phase 2-3 connections are used to BPL signal transmission. |





# Ordering Information

**BSB618**  
**Industrial Unmanaged Ethernet Switch,**  
**7 × 10 / 100 T(x) ETH ports + 1 × BPL (Broadband Power Line) Link,**  
**3 Phase AC Power Input,**  
**110 V – 240 V / 50 – 60 Hz**

## Product Selection

| Model  | 5 – 60V DC Power input | 90 – 265V AC (100 – 370V DC), 47Hz to 63Hz AC Power Input | 3 Phase AC Power input, 110 V – 240 V / 50 – 60 Hz AC Power Input | 8 × 10/100 T(x) ETH ports | 7 × 10/100 T(x) ETH ports | 5 × 10/100 T(x) ETH ports | 4 × 10/100 T(x) ETH ports | 1 × 10/100 T(x) ETH ports | BPL (Broadband Power Line) Link |
|--------|------------------------|---|---|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------------|
| BSB115 | ●                      |   |   |                           |                           | ●                         |                           |                           |                                 |
| BSB118 | ●                      |   |   | ●                         |                           |                           |                           |                           |                                 |
| BSB215 |                        | ●   |   |                           |                           | ●                         |                           |                           |                                 |
| BSB218 |                        | ●   |   | ●                         |                           |                           |                           |                           |                                 |
| BSB612 |                        |   | ●   |                           |                           |                           |                           | ●                         | ●                               |
| BSB615 |                        |   | ●   |                           |                           |                           | ●                         |                           | ●                               |
| BSB618 |                        |   | ●   |                           | ●                         |                           |                           |                           | ●                               |