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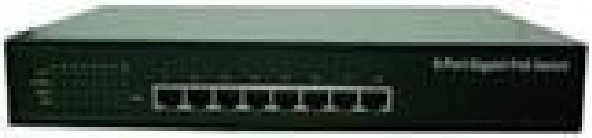
# 2012 Catalogue

## PoE Commercial Switches



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# BSD-PR100

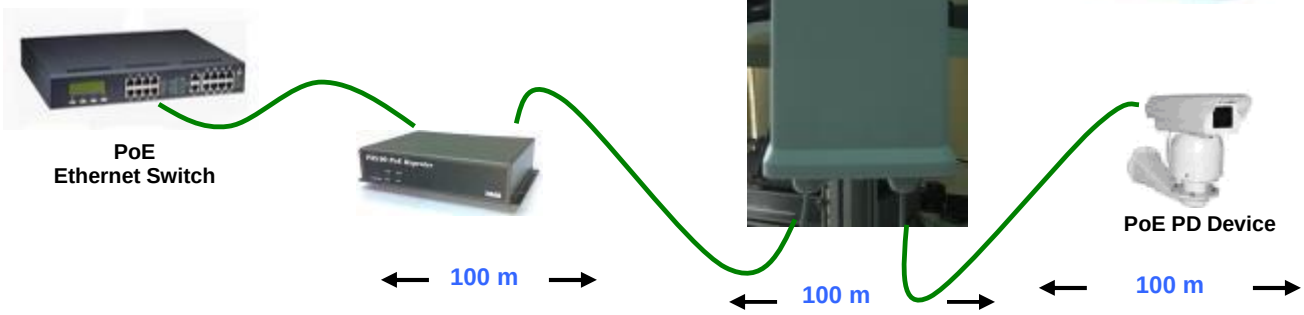
## PoE ETHERNET REPEATER

### Overview

BSD-PR100 is an Ethernet and Power-over-Ethernet Repeater providing a 100/100Mbps Ethernet transmission for 100m distance and extend Ethernet connectivity another 100m with power over Ethernet capability. It forwards both Ethernet and PoE for another 330ft (100m) using an innovative power-processing scheme and multiple units can be deployed in series for even longer distances, with no degradation in network speed or latency. BSD-PR100 itself is powered by an Ethernet PoE switch (or PoE injector) and so requires no separate power connection in the middle of the cable, making it extremely easy to connect and power IP cameras two or three times further than previously possible without going to fiber or installing midspan power sources.
In the simplest application, a BSD-PR100 allows an IP camera to be located 200-300 meters away from a PoE switch. The switch delivers PoE power over the first 100 meters of Cat5 cable to the BSD-PR100, and the repeater restores the Ethernet signal and forwards remaining PoE power to the camera. The BSD-PR100 requires no local power supply, and presents no restriction to the camera network connection. Typically, the PoE switch would be confined to a centrally located equipment room, and would connect to several IP cameras distributed about the site. With BSD-PR100, each camera may have its own dedicated connection to the switch, and power cable installation to remote switches or cameras is not required.

### Key Features

- Extends Ethernet cable installations for another 100 meters
- Forwards Power Over Ethernet (PoE) to remote devices
- No power cable installation required
- Fully Ethernet protocol transparent – no restrictions to network traffic
- 100Mbps Ethernet Wire Speed
- Compatible with IEEE 802.3af PoE standard
- IP65 Rain-Proof for BSD-PR100-ODU outdoor unit
- Plug & Play


| Maximum Range: | | | | |
|---|---|---|---|---|
| PoE PD device class | 3 or 0 | 2 | 1 | (None PoE) |
| Device power up to: | 12.95W | 6.49W | 3.84W | n/a |
| Range with Standard PSE switch: | n/a | 300m | 400m | 700m |
| Range with Hi-Power PSE switch: | 300m | 500m | 700m | 1000m |
| Note: These distances are typical results when used with standard 24AWG Cat5, Cat5e or Cat6 cable. | | | | |

### Ordering Information

| | |
|---|---|
| **BSD-PR100** | 1port PoE repeater over Cat5/e cable, wall mountable |
| **BSD-PR100-ODU** | 1port PoE outdoor repeater over Cat5/e cable, wall mountable IP65 Casing |

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# BSD-PR100

## Specifications

| | |
|---|---|
| **Interface** | ***LAN IN:***1 x 10/100Base-TX Ethernet with IEEE 802.3af PoE "Data + DC" in Auto MDI/MDI-X, Auto-Negotiation RJ-45 connector |
| | ***LAN OUT***:1 x 10/100Base-TX Ethernet with IEEE 802.3af PoE "Data + DC" out Auto MDI/MDI-X, Auto-negotiation RJ-45 connector |
| **PoE Standard** | IEEE 802.3af Power over Ethernet |
| **PoE Power Supply Type** | Mid-Span / Type B |
| **PoE Power Output** | 48V DC, 270mA, Max. 13Watts |
| **Power Pin Assignment** | 4/5(+), 7/8(-) |
| **Maximum Distance** | Class 1 (3.8 Watts): 300m<br>Class 2 (6.5 Watts): 300m<br>Class 3 (12.9 Watts): 200m<br>Non-PoE (Data): 300m |
| **Data Rate** | 10/100Mbps |
| **Switch Architecture** | Store-and-Forward |
| **Switch Throughput** | 148810pps@64Bytes |
| **Latency** | 7.840µs |
| **Maximum Frame Size** | 1552Bytes |
| **Flow Control** | Back pressure for Half-Duplex<br>IEEE 802.3x Pause Frame for Full-Duplex |
| **LED Indicators** | 1 x PoE IN (Green)<br>1 x LAN Data (Green)<br>1 x PoE OUT (Green) |
| **Protection** | ESD(Ethernet): 6KV<br>Surge (EFT for power) : 6KV |
| **Dimension (W x D x H)** | 94 x 70 x 26 mm |
| **Weight** | 215g |
| **Power Requirement** | IEEE 802.3af compliant with voltage within 44V-56V DC |
| **Power Consumption** | 2 Watts (maximum) |
| **Mechanical** | Metal / Wall Mountable |
| **Cable** | TIA / EIA-568, Category 5/5e cable |
| **Regulation Compliance** | FCC Part 15 Class A, CE |
| **Standard Compliance** | IEEE 802.3 10Base-T Ethernet<br>IEEE 802.3u 10/100Base-TX Fast Ethernet<br>IEEE 802.3af Power over Ethernet PSE / Mid-Span<br>IEEE 802.3af Power over Ethernet PD / Mid-Span<br>IEEE 802.3x Flow Control |
| **Operating** | Temperature: 0 ~ 55 °C<br>Relative Humidity: 0 ~ 95% (non-condensing) |
| **Storage** | Temperature: -10 ~ 70 ° C<br>Relative Humidity: 5 ~ 95% (non-condensing) |

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# BSD-PS800

## *8 10/100-TX PORT PoE ETHERNET SWITCH*

### *Overview*

The BSD-PS800 is a 8-port Fast Ethernet, IEEE 802.3af PoE Switch utilizing a compact form factor of 15.4W PoE power and total power budget of 65W.
With data and power supported by one unit, the switch will reduce cables and eliminate the need for dedicated electrical outlets on the wall, ceiling or any unreachable place. Auto PoE detection and Plug and play installation make BSD-PS800 PoE Switch easy to use and with clear LED indicators showing the working condition.

### *Key Features*

- Per PoE port of up to 15.4 watt
- IEEE 802.3af standard
- Supply suitable power to PoE PD terminals
- Safe and reliable power to Wifi AP, IP Cam
- Automatic Detection and Protection of Non–standard Ethernet Terminals
- Supports 10/100Base-T applications
- Compact design
- External AC Power Adaptor of 65 watt

### *Ordering Information*

| | |
|---|---|
| **BSD-PS800L** | 8 10/100-TX port Fast Ethernet PoE Switch, 65W total power |
| **BSD-PS800** | 8 10/100-TX port fast Ethernet PoE Switch 120W total power |

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# BSD-PS800

## *Specifications*

| | |
|---|---|
| **Passthrough Data Rates** | 8-Port 10/100 Mbps |
| **LED** | Power, 10/100, Link/Act, PoE |
| **Power over Ethernet Output** | 802.3af (15.4 watt) |
| **Pin Assignment and Polarity** | 1/2 (+), 3/6 (–) |
| **Output Power Voltage** | 48VDC |
| **User Port Power** | >15.4 watt /300mA |
| **Total Power** | 65 watt |
| **Input Power AC Input Voltage** | 100 to 240 VAC |
| **Requirements AC Input Current** | 1.35A @ 100-240 VAC |
| **AC Frequency** | 50 to 60 Hz |
| **Dimensions (W x D x H)** | 188 mm x 119 mm x 39mm |
| **Weight** | 1.2Kg |
| **Indicators** | System Indicator: Power (Green) |
| **User Indicator** | Channel Power |
| **Connectors** | Shielded RJ-45, EIA 568A and 568B |
| **Operating Temperature** | 10 to 45 C |
| **Reliability MTBF** | 296,000 hrs. at 25 C |
| **Thermal Rating** | 27 BTU/Hr (@240VAC) |
| **Regulatory** | IEEE 802.3af, Compliance RoHS Compliant , CE, FCC |
| **Safety Approvals** | EN 60950:2006 |

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# BSD-PS2400

## 24 10/100-TX +2 GIGABIT/SFP COMBO PORT PoE ETHERNET SWITCH

### Overview

BSD- PS2400 Ethernet Switch series provides 24 ports with IEEE 802.3at/af PoE interfaces and 2 Combo Gigabit UTP/SFP open slots.
With its 8.8Gbps non-blocking switch fabric, 4K MAC Address table, and 802.3x, full-duplex flow control, the BSD-PS2400 series offers wire-speed packet transfer performance without risk of packet loss. All 24 Fast Ethernet RJ-45 copper interfaces support 10/100Mbps and 2 Gigabit Ethernet UTP/SFP slots support 10/100/1000Mbps auto-negotiation for optimal speed detection through RJ-45 Category 6, 5 or 5e cables or fibers. MDI/MDI-X auto detection is provided for direct wire connection to any Ethernet devices like switches, hubs, or workstations without requiring a crossover cables. Through the front panel LED indicators, users can easily tell the network connection status directly from the indicators.
The BSD-PS2400 series also provides a simple, cost-effective, and highly reliable network connection for data and power transmission. Furthermore, it is the ideal device for bridging among Ethernet, Fast Ethernet workgroups and networks. It fits all kind of Ethernet installations such as campus, workgroup, department, enterprise, telecom or industrial applications.

### Key Features

- Comply with IEEE 802.3, IEEE 802.3u 10/100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000BaseSX/LX Ethernet Standard
- 24 (10/100Mbps), 2 (10/100/1000Mbps) Combo Gigabit Switch
- Each Switching ports support auto-negotiation-10/100Mbps
- Each Gigabit Switching ports support auto-negotiation-10/100/1000Mbps
- Auto-MDI/MDI-X detection on each RJ-45 port
- Prevents packet loss with back pressure (half-duplex) and 802.3x PAUSE frame flow control (full-duplex)
- High performance Store and Forward architecture
- Provide 8.8Gbps switch fabric, non-blocking switch architecture
- 4K MAC address table, automatic source address learning and ageing
- 2.5Mbit packet buffering
- 19-inch rack mountable


### Ordering Information

| | |
|---|---|
| **BSD-PS2400-24AL** | 24 10/100-TX+ 2 Giga/SFP Combo Port Switch, 24 802.3at/af ports PoE, 500 watts DC power |
| **BSD-PS2400-16A** | 24 10/100-TX+ 2 Giga/SFP Combo Port Switch, 16 802.3at/af ports PoE, 500 watts DC power |
| **BSD-PS2400-24** | 24 10/100-TX+ 2 Giga/SFP Combo Port Switch, 24 802.3af ports PoE 380 watts DC power |
| **BSD-PS2400-L** | 24 10/100-TX+ 2 Giga/SFP Combo Port Switch, 24 802.3af ports PoE PoE, 250 watts DC power |
| **BSD-PS2400-16** | 24 10/100-TX+ 2 Giga/SFP Combo Port Switch, 16 802.3af ports PoE, 250 watts DC power |
| **BSD-PS2400-8** | 24 10/100-TX+ 2 Giga/SFP Combo Port Switch, 8 802.3af ports PoE, 130 watts DC power |

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# BSD-PS2400

## *Specifications*

| | |
|---|---|
| **Standards Compliance** | IEEE 802.3 (Ethernet)<br>IEEE 802.3u (Fast Ethernet)<br>IEEE 802.3ab(Gigabit Ethernet), IEEE 802.3z 1000BaseSX/LX<br>IEEE 802.3x (full-duplex flow control) |
| **Ports** | 24 10/100Base-TX RJ-45 Auto-MDI/MDI-X ports |
| **Gigabit ports** | 2 10/100/1000Base-T UTP/SFP slots |
| **Switch Processing Scheme** | Store-and-forward |
| **Throughput (packet per second)** | 6.547Mpps |
| **Switch Fabric** | 8.8Gbps |
| **Address Table** | 4K entries |
| **Share data Buffer** | 2.5Mbit |
| **Flow Control** | Back pressure for half duplex, IEEE 802.3x Pause Frame for full duplex |
| **Dimensions (W x D x H)** | 440 x 200 x 44 mm, 1U height |
| **Weight** | 3.8 kgs |
| **Power Requirement** | 100~240 VAC, 0.5A, 50-60 Hz |
| **PoE Standard** | IEEE 802.3at/af Power over Ethernet / PSE |
| **PoE Power Supply Type** | End-Span |
| **PoE Power Output** | Per Port 48V DC, Max. 15.4 watts (802.3af) or 30 watts (802.3at) |
| **Power Pin Assignment** | 1/2(+), 3/6(-) |
| **Power Budget** | Max. 500 watts |
| **Regulation Compliance** | FCC Part 15 Class A, CE |

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# BSD-PS800G

## 8 GIGABIT TX PORT PoE ETHERNET SWITCH

### Overview

The BSD-PS800G is a 8-port Gigabit, high power (IEEE 802.3at) PoE Switch utilizing a compact form factor which can be mounted in a 19-inch rack with optional rack-mounting kits or placed on desktop.
With data and power supported by one unit, the PS800GA shall reduce cables and eliminate the need for dedicated electrical outlets on the wall, ceiling or any unreachable place.
Auto PoE detection and Plug and play installation make BSD-PS800G Gigabit PoE Switch easy to use and with clear LED indicators to tell the working condition


### Key Features

- Per PoE port of up to 30 watt or 15.4 watt
- IEEE 802.3at compliant with 2-event classification
- IEEE 802.3af backward compatible
- Supply suitable power to PoE PD terminals
- Safe and reliable power to WLAN APs
- Automatic Detection and Protection of Non–standard Ethernet Terminals
- Supports 10/100/1000Base-T applications
- Compact design
- AC-in Internal Power

### Ordering Information

| | |
|---|---|
| **BSD-PS800GA** | 8 port Gigabit Ethernet High power PoE Switch<br>Total power of 250W 802.3at (@30w) |
| **BSD-PS800G** | 8 port Gigabit Ethernet PoE Switch Total power of 120W 802.3af (@15.4w) |

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# BSD-PS800G

## *Specifications*

| | |
|---|---|
| **Pass Through Data Rates** | 8-Port 10/100/1000 Mbps |
| **LED** | Power, 10/100,1000, Link/Act, PoE |
| **Power over Ethernet Output** | 802.3at (Per PoE port : 30Watts), 802.3af (15.4Watts) |
| **Pin Assignment and Polarity** | 1/2 (+), 3/6 (–) |
| **Output Power Voltage** | 48VDC |
| **User Port Power** | >28Watts /600ma |
| **Total Power** | PS800GA-250, PS800GAL-200, PS800G-120, PS800GL-65 |
| **Input Power AC Input Voltage** | 100 to 240 VAC |
| **Requirements AC Input Current** | 2A @ 100-240 VAC |
| **AC Frequency** | 50 to 60 Hz |
| **Dimensions (W x D x H)** | 280 mm x 185 mm x 44mm |
| **Weight** | 1.7Kg |
| **Indicators** | System Indicator: AC Power (Green) |
| **User Indicator** | Channel Power |
| **Connectors** | Shielded RJ-45, EIA 568A and 568B |
| **Operating Temperature** | -10 to 45 C |
| **Reliability MTBF** | 296,000 hrs. at 25° C |
| **Thermal Rating** | 27 BTU/Hr (@240VAC) |
| **Regulatory** | IEEE 802.3at, IEEE 802.3af, Compliance RoHS Compliant , CE, FCC |
| **Safety Approvals** | EN 60950:2006 |

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# BSD-PS1222G

## 12 GIGABIT PORT PoE MANAGED ETHERNET SWITCH

### Overview

BSD-PS1222GL/F supports 12 10/100/1000Mbps Auto-negotiation, Auto-MDIX Ethernet ports and Power over Ethernet to IEEE 802.3af compliant devices. It's fully compliant with the standards of IEEE 802.3/u/x/z/ab/af. It is equipped with 10 Gigabit TP ports and 2 are dual media ports that accommodate optional 10/100/1000Base-T or SFP modules. In addition, the switch implements the QoS (Quality of Service), Mac Filtering Policy, Port Mirror, VLAN and full L2 protocol. The overall network management is enhanced and the network efficiency is also improved to accommodate high bandwidth applications with security.

### Key Features

- PoE Save Your Power Infrastructure Cost
- 2 Dual Media for Flexible Fiber Connection
- Q-in-Q VLAN for performance & security
- 802.1x Access Control Improve Network Security
- 802.1d Compatible & 802.1w Rapid Spanning Tree
- QoS support layer 4 classification

### Ordering Information

| | |
|---|---|
| **BSD-PS1222GF** | 12 Gigabit Port Ethernet L2 Managed PoE Switch with 2 SFP Dual Media (Max 185W) |
| **BSD-PS1222GL** | 12 Gigabit Port Ethernet L2 Managed PoE Switch with 2 SFP Dual Media (Max 130+W) |

### Ordering Information for the SFP

| | |
|---|---|
| **BSD-SFPGLC(SX)** | SFP, 1.25Gbps, 850nm, 3.3V 1000Base-FX Multi mode SFP Module, 500m |
| **BSD-SFPGLC** | SFP, 1.25Gbps, 1310nm, 3.3V 1000Base-FX Multi mode SFP Module, 2km |
| **BSD-SFPGLC-20** | SFP, 1.25Gbps, 1310nm, 3.3V 1000Base-FX Single mode SFP Module, 20km **(Longer distance special order)** |

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# BSD-PS1222G

## *Specifications*

| | |
|---|---|
| **Standards** | IEEE 802.3 10Base-T<br>IEEE 802.3u 100Base-TX<br>IEEE 802.3x Flow Control Capability<br>IEEE 802.3z 1000Base-X Ethernet<br>IEEE 802.3ab 1000Base-TX<br>ANSI/IEEE 802.3 Auto-negotiation<br>IEEE 802.1q VLAN<br>IEEE 802.1d Spanning Tree Protocol.<br>IEEE 802.1w Rapid Spanning Trees<br>IEEE 802.1x Port-based network access control<br>IEEE 802.1p Class of Service<br>IEEE 802.3ad Link Aggregation Control Protocol (LACP)<br>IEEE 802.3af PoE Standard |
| **Switching capacity** | 12 Gigabit Ethernet ports with non-blocking wise speed performance.<br>8 K MAC addresses<br>208KB on-chip frame buffer<br>Supports Jumbo frame support, up to 9K<br>Broadcast/Multicast Storm Suppression<br>Port Mirroring |
| **Vlan** | Port-base VLAN<br>IEEE802.1q tag-base VLAN, up to 256 active VLANs<br>Q-in-Q is an efficient method for enabling Subscriber Aggregation. |
| **VSM (Virtual Stacking Management)** | Up to 16 switches can be managed via Single IP limited to specific managed switches.<br>Virtual stacking, no extra stacking hardware is required<br>Distributed stacking, no physical central wiring closet is needed |
| **QoS** | Supports QCL for Layer 4 TCP/UDP Port and ToS Classification<br>Supports 802.1p QoS with four level priority queue<br>Supports priority in a Q-in-Q tag |
| **Protocol** | **LACP**<br>Port trunking with 6 trunking group<br>Up to 6 ports for each group.<br>**GVRP/GARP**<br>802.1q with GVRP/ GARP<br>**Multicasting**<br>Supports IGMP snooping including active and passive mode<br>Supports IGMP proxy including active and passive mode<br>**STP/RSTP/MSTP**<br>802.1d/1w |
| **SNMP v1, v2c** | RFC 1213 MIB (MIB-II)<br>Interface MIB<br>Address Translation MIB<br>IP MIB<br>ICMP MIB<br>TCP MIB<br>UDP MIB<br>SNMP MIB<br>RFC 1757 RMON MIB<br>Statistics Group 1<br>History Group 2<br>Alarm Group 3<br>Event Group 9<br>RFC 1493 Bridge MIB<br>RFC 1643 Ethernet MIB<br>Enterprise MIB |

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# BSD-PS1222G

## *Specifications*

| | |
|---|---|
| **PoE specifications** | Supports IEEE 802.3af compliant<br>Supports Power over Ethernet (PSE) on each Gigabit UTP port<br>Full power support for per PoE port<br>Auto detect powered device and consumption levels<br>Supports per port power consumption monitoring<br>Smart feature for PD on/off, PD detection, power level, PD status and power feeding priority<br>Circuit protection to prevent power interference between ports<br>Supports per port PoE State setting<br>Supports per port power priority setting<br>LED indicators for PoE ready and PoE activity |
| **Bandwidth Control** | Supports bandwidth rating per port ingress and egress rate limit<br>1000Mbps with 1Mbps |
| **LED** | POWER:Green-Lit when +5V power is on<br>CPU:Green– Blinks when CPU is active |
| **TP GigaPort 1-12 LED** | LINK/ACT:Green-Lit when connection with remote device is good<br>Blinks when any traffic is present<br>10/100/1000Mbps: Green/Amber Lit green when TP link is on 1000Mps speed<br>Lit amber when TP link is on 100Mbps speed<br>Off when 10Mbps or no link occurs |
| **SFP Port 11,12 LED** | SFP(LINK/ACT):Green-Lit when connection with the remote device is good<br>Blinks when any traffic is present |
| **PoE LED** | PoE:Green<br>Lit when connection with PoE enabled |
| **Configuration** | 10/100/1000-TX :RJ45 Port 1-12 |
| | 1000 LC SFP Fiber: RJ45/SFP combo Port 11,12 |
| **Power** | 100-240V Frequency 50-60 Hz |
| **PoE power** | Max. 15W ( in case no PD device connected) |
| | Max. 185W for BSD-PS1222GF |
| | Max. 130W for BSD-PS1222GL |
| **Ambient Temperature** | 0° to 40°C |
| **Humidity** | 5% to 90% |
| **Dimensions** | 44(H) x 442 (W) x 209 (D) mm |
| **Weight** | 3kg |
| **EMI** | Comply with FCC Part 15 Class A & CE Mark Approval |

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# BSD-PS2422

## *24 10/100TX PoE PORT + 2GIGA/SFP COMBO MANAGED ETHERNET SWITCH*

### *Overview*

BSD-PS-2422 supports 24 10/100Mbps Auto-negotiation, Auto-MDIX Ethernet ports and Power over Ethernet to IEEE 802.3af compliant devices. With the 24-port featuring PoE function, the PS2422L is an ideal solution for wireless AP, VoIP phones, security video cameras. It's fully compliant with the standards of IEEE 802.3/u/x/z/ab/af. It is equipped with 24 UTP (RJ-45) ports and 2 of which are dual media ports that accommodate optional 10/100/1000Base-T or SFP modules. In addition, the switch implements the QoS (Quality of Service), MAC Filtering Policy, Port Mirror, VLAN and full L2 protocol. The overall network management is enhanced and the network efficiency is also improved to accommodate high bandwidth applications with security**.**

### *Key Features*

- QoS with Four Priority Queues
- Port Mirroring
- Q-in-Q VLAN for performance & security
- Isolated Group Provides protection for Certain Ports
- Mac-based 802.ad LACP with Automatic Link Fail-over
- 802.1x Access Control Improve Network Security
- 802.1d Compatible & 802.1w Rapid Spanning Tree
- 2 Dual Media for Flexible Fiber Connection
- Broadcast/Multicast/Unknown-unicast Storm Control
- PoE Saves Your Power Infrastructure and Installation Cost

### *Ordering Information*

| | |
|---|---|
| **BSD-PS-2422L** | 24-Port L2 Managed Fast Ethernet PoE Switch + 2 Giga/SFP Combo max 185W |
| **BSD-PS-2422F** | 24-Port L2 Managed Fast Ethernet PoE Switch + 2 Giga/SFP Combo max 500W |

### *Ordering Information for the SFP*

| | |
|---|---|
| **BSD-SFPGLC(SX)** | SFP, 1.25Gbps, 850nm, 3.3V 1000Base-FX Multi mode SFP Module, 500m |
| **BSD-SFPGLC** | SFP, 1.25Gbps, 1310nm, 3.3V 1000Base-FX Multi mode SFP Module, 2km |
| **BSD-SFPGLC-20** | SFP, 1.25Gbps, 1310nm, 3.3V 1000Base-FX Single mode SFP Module, 20km **(Longer distance special order)** |

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# BSD-PS2422

## *Specifications*

| | |
|---|---|
| **Standards** | IEEE 802.3 10Base-T Ethernet(twisted-pair copper)<br>IEEE 802.3u 100Base-TX Ethernet(twisted-pair copper)<br>IEEE 802.3ab 1000Base-T Ethernet(twisted-pair copper)<br>IEEE 802.3z 1000Base-SX/LX Ethernet<br>IEEE 802.3x flow control capability<br>ANSI/IEEE 802.3 auto-negotiation<br>IEEE 802.1q VLAN |
| **Switching capacity** | Non-blocking switch fabric supports up to 24FE+2GbE ports<br>8 K MAC addresses<br>256k packet buffer and 128k control memory<br>The maximum throughput is 8.8Gbps<br>With 64 bytes packets throughput is 6.547Mpps |
| **Vlan** | Supports SVL/IVL configuration to meet your VLAN requirement<br>Port-base VLAN<br>IEEE802.1q tag-base VLAN, 4094 max, up to 256 active VLANs included static plus dynamic entry<br>IEEE802.1q tag-base VLAN<br>Flooding unknown vlan frame setting, can flood packet with some vlan tag associated to a invalid/inactive vlan<br>In tag-base VLAN, supports egress/ingress packet filter<br>Q-in-Q is an efficient method for enabling Subscriber Aggregation |
| **VSM (Virtual Stacking Management)** | Supports 16 devices stacking<br>Multiple switches can be managed via one IP address, just like software stacking<br>Low cost and easily to establish network environment, not extra hardware require.<br>Not center on the physical location of wiring closets |
| **QoS** | Port Based (VIP Port), 802.1p , TOS and Diffserv(IPv4/IPv6) based QoS packet classification<br>Supports four level priority queues to prioritize in-bound and out-bound traffic<br>Supports two scheduling, WRR and Strict<br>Supports priority in a Q-in-Q tag |
| **Protocol** | **LACP:**2 Fast Ethernet +1 Gigabit Ethernet groups<br>Per-group max 4 members<br>Provides DA, SA and DA+SA Mac-based trunking with automatic link fail-over<br>**GVRP/GARP:**802.1q with GVRP/ GARP<br>**Multicasting:** Supports IGMP snooping including active and passive mode<br>**STP/RSTP:**802.1d/1w |
| **PoE specifications** | 24 IEEE802.3af PoE PSE ports<br>Endpoint with 48VDC power through RJ-45 pin 1, 2, 3, 6<br>PoE-PSE activity LED indicator<br>185 watts of total power (up to 15.4 watts for 12 ports, or up to 7.7 watts for 24 ports)<br>Auto detect powered device and consumption levels<br>Supports per port power consumption monitoring<br>Smart feature for PD on/off, PD detection, power level, PD status and power feeding priority<br>Circuit protection to prevent power interference between ports<br>Supports per port PoE State setting<br>Supports per port power priority setting |
| **SNMP v1, v2c** | RFC 1213 MIB (MIB-II)<br>Interface MIB<br>Address Translation MIB<br>IP MIB<br>ICMP MIB<br>TCP MIB<br>UDP MIB<br>SNMP MIB<br>RFC 1757 RMON MIB<br>Statistics Group 1<br>History Group 2<br>Alarm Group 3<br>Event Group 9<br>RFC 1493 Bridge MIB<br>RFC 1643 Ethernet MIB<br>Enterprise MIB |

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# BSD-PS2422

## Specifications

| | |
|---|---|
| **Network Security** | 802.1x access control<br>Isolated group<br>Restricted group<br>Management Access Policy Control<br>Static Mac, to limit which Mac addresses can pass through or not<br>Mac addresses learning limit, to set up the maximum amount of Macs that each port can learn |
| **Broadcast Storm Control** | Multicast/Broadcast/Unknown-Unicast Storm suppression |
| **Port Mirroring** | Support 1: N RX port mirroring<br>Supports port sniffer function with 3 modes:(TX Monitor Mode, RX Monitor Mode and TX-RX pair Monitor Mode) |
| **Rate Limit** | Ingress rate limit:<br>Port 1~24: 1K up to 100Mbps<br>Port 25, 26: 1K up to 1000Mbps<br>Egress rate limit:<br>Port 1~24: 1K up to 100Mbps<br>Port 25, 26: 1K up to 1000Mbps |
| **LED** | CPURUN, POWER, ACT, FDX, SPD Green when function is on |
| **10/100 TP Ports 1-24 LED** | LNK,: Green when connected ACT/FDX/SPD:Amber blinks when function is set |
| **Giga FX Port 25-26 LED** | LNK., FX,: Green when function is set. ACT/FDX/SPD: Green blinks when function is set |
| **PoE LED** | Green when PoE power is active |
| **Interface** | Port 1-24 are 10/100Mbps Fast Ethernet ports<br>Port 25,26 are Gigabit TP/SFP Fiber auto sense<br>Auto-Negotiation and Auto-MDIX<br>Backpressure flow control for half duplex<br>802.3x flow control for full duplex<br>Connector: 24 RJ-45 and 2 dual media, RJ-45/SFP |
| **Cable** | **TP:** cat5 cable, up to 100m<br>**1000Base-SX SC MM:** Up to 500m/2km, which depends on Multi-Mode Fiber type<br>**1000Base-LX SC SM:** Single-Mode Fiber, up to 20+km |
| **Power** | Voltage : 100~240 V Frequency : 50~60 Hz |
| **PoE power** | Max. 15W ( in case no PD device connected) |
| | Max. 185W ( with 12 x 15.4W PD device connected ) – BSDPS2422L |
| | Max. 500W ( with 24 x 15.4W PD device connected ) – BSD-PS2422F |
| **Operating Temperature** | 0° to 40°C |
| **Humidity** | 5% to 90% |
| **Dimensions and Weight** | BSD-PS-2422L : 44(H) x 442(W) x 209(D) mm 3.3kg |
| | BSD-PS-2422F : 44(H) x 442(W) x 366(D) mm 5.7kg |
| **EMI** | Comply with FCC Part 15 Class A & CE Mark Approval |

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# BSD-PS2424G

## 24 GIGABIT PORT PoE MANAGED ETHERNET SWITCH

### Overview

BSD-PS2424GL/GF, a 24-Port GbE L2 Plus Managed PoE Switch with 4 SFP Dual Media. The switch includes 20-Port 10/100/1000Mbps TP with PoE function and 4-Port Gigabit TP/SFP Fiber dual media management switch, the BSD- PS2424GL/GF is an ideal solution for wireless AP, VoIP phones, security video cameras. It's fully compliant with the standards of IEEE 802.3/u/x/z/ab/af.

The switch can be managed through RS-232 serial port, or through Ethernet port using CLI or Web-based management unit, associated with SNMP agent. With the SNMP agent, the network administrator can logon the switch to monitor, configure and control each port's activity in a friendly way. The overall network management is enhanced and the network efficiency is also improved to accommodate high bandwidth applications. In addition, the switch features comprehensive and useful functions such as QoS (Quality of Service), Spanning Tree, VLAN, Port Trunking, Bandwidth Control, Port Security, SNMP/RMON, IGMP Snooping capability via the intelligent software. The switch also supports includes ACL, IP-MAC-Port Binding and DHCP Snooping capability for security purpose. It is suitable for both metro-LAN and office applications.

### Key Features

- 4 dual Media for fexible fiber connection
- 9KB jumbo frame support
- IEEE 802.1x Access control improve network security
- Port Mirroring helps supervisor monitoring network
- Q-in-Q VLAN for performance & security and 4094 Vlan entries
- IEEE 802.1d Compatible, 802.1w Rapid Spanning Tree and 802.1s Multiple Spanning Tree
- Unknown Unicast/Broadcast/Multicast Storm Control
- Multicast VLAN management for IPTV
- IP-MAC-Port binding for LAN security
- QCL based on application traffic for QoS and rate limitation management
- ACL based on Ethernet Type / ARP / IPv4 for packets permit or deny, rate limitation and port copy
- DHCP Snooping (Including DHCP Option 82)
- IEEE802.3af Power Over Ethernet compliant

### Ordering Information

| | |
|---|---|
| **BSD-PS2424GL** | 24-Gigabit Port Ethernet L2 Plus Managed PoE Switch with 4 SFP Dual Media (Max 185W) |
| **BSD-PS2424GF** | 24-Gigabit Port Ethernet L2 Plus Managed PoE Switch with 4 SFP Dual Media (Max 380W) |

### Ordering Information for the SFP

| | |
|---|---|
| **BSD-SFPGLC(SX)** | SFP, 1.25Gbps, 850nm, 3.3V 1000Base-FX Multi mode SFP Module, 500m |
| **BSD-SFPGLC** | SFP, 1.25Gbps, 1310nm, 3.3V 1000Base-FX Multi mode SFP Module, 2km |
| **BSD-SFPGLC-20** | SFP, 1.25Gbps, 1310nm, 3.3V 1000Base-FX Single mode SFP Module, 20km **(Longer distance special order)** |

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# BSD-PS2424G

## Specifications

| | |
|---|---|
| **Standards** | IEEE 802.3 10Base-T Ethernet(twisted-pair copper)<br>IEEE 802.3u 100Base-TX Ethernet(twisted-pair copper)<br>IEEE 802.3ab 1000Base-T Ethernet(twisted-pair copper)<br>IEEE 802.3z 1000Base-SX/LX Ethernet<br>IEEE 802.3x Flow Control capability<br>IEEE 802.1q VLAN<br>IEEE 802.1p<br>IEEE 802.3af PoE |
| **Switching capacity** | 24 Gigabit Ethernet ports with non-blocking wise speed performance.<br>8 K MAC addresses<br>Supports Jumbo frame support, up to 9K<br>Unknown Unicast/Broadcast/Multicast Storm Suppression<br>Port Mirroring |
| **Vlan** | Port-base VLAN<br>IEEE802.1q tag-base VLAN, up to 4k active VLANs<br>Q-in-Q is an efficient method for enabling Subscriber Aggregation.<br>Multicast Vlan management |
| **VSM (Virtual Stacking Management)** | Up to 16 switches can be managed via Single IP limited to specific managed switches.<br>Virtual stacking, no extra stacking hardware is required<br>Distributed stacking, no physical central wiring closet is needed |
| **QoS** | Supports QCL for Layer 4 TCP/UDP Port and ToS Classification<br>Supports 802.1p QoS with four level priority queue<br>Supports priority in a Q-in-Q tag |
| **Protocol** | **LACP**<br>Port trunking with 12 trunking group<br>Up to 16 ports for each group.<br>**GVRP/GARP**<br>802.1q with GVRP/ GARP<br>**Multicasting**<br>Supports IGMP v3 snooping including active and passive mode<br>Supports IGMP proxy including active and passive mode<br>**STP/RSTP/MSTP**<br>802.1d/1w/1s |
| **PoE specifications** | 24 IEEE802.3af PoE PSE ports<br>End-point with 48VDC power through RJ-45 pin 1, 2, 3, 6.<br>PoE-PSE activity LED indicator.<br>Auto detect powered device and consumption levels<br>Supports per port power consumption monitoring<br>Smart feature for PD on/off, PD detection, power level, PD status and power feeding priority<br>Circuit protection to prevent power interference between ports<br>Supports per port PoE state setting<br>Supports per port power priority setting |
| **Network Security** | 802.1x access control for port based and MAC based authentication<br>Management access policy control<br>Access Control List<br>IP-MAC-Port binding<br>DHCP Snooping (Including DHCP Option 82) |
| **SNMP v1, v2c** | RFC 1213 MIB (MIB-II)<br>Interface MIB<br>Address Translation MIB<br>IP MIB<br>ICMP MIB<br>TCP MIB<br>UDP MIB<br>SNMP MIB<br>RFC 1757 RMON MIB<br>Statistics Group 1<br>History Group 2<br>Alarm Group 3<br>Event Group 9<br>RFC 1493 Bridge MIB<br>RFC 1643 Ethernet MIB<br>Enterprise MIB |

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# BSD-PS2424G

## Specifications

| | |
|---|---|
| **Bandwidth Control** | Supports bandwidth rating per port ingress and egress rate limit<br>500Kbps~1000Mbps with 1Kbps |
| **LED** | POWER:Green-Lit when DC power is on<br>FAN 1:Green-Lit when FAN 1 is good<br>FAN 2:Green when FAN 2 is good |
| **TP GigaPort 1-24 LED** | LNK/SPD/ACT:Green/Amber<br>Lit when connection with remote device is good<br>Blinks when any traffic is present<br>Off when cable connection is not good<br>Lit green when 1000Mbps speed is active<br>Lit ember when 10/100Mbps speed is active |
| **Giga FX Port 21-24 LED** | SFP(LINK/ACT):Green<br>Lit when connection with the remote device is good<br>Blinks when any traffic is present |
| **PoE LED** | PoE:Green<br>Lit when connection with PoE enabled |
| **Configuration** | 10/100/1000-TX :RJ45 Port 1-20 |
| | 1000 LC SFP Fiber: RJ45/SFP combo Port 21,22,23,24 |
| **Power** | 100-240V Frequency 50-60 Hz |
| **PoE power** | Max. 15W ( in case no PD device connected) |
| | Max. 185W ( with 12 x 15.4W PD device connected ) – for BSD-PS2424GL |
| | Max. 380W ( with 24 x 15.4W PD device connected ) – for BSD-PS2424GF |
| **Ambient Temperature** | 0° to 40°C |
| **Humidity** | 5% to 90% |
| **Dimensions** | BSD-PS2424GL : 44(H) ´ 442(W) ´ 248 (D) mm |
| | BSD-PS2424GF : 44(H) ´ 442(W) ´ 366 (D) mm |
| **Weight** | BSD-PS2424GL : 3.8 Kg |
| | BSD-PS2424GF : 5.7 Kg |
| **EMI** | Comply with FCC Part 15 Class A & CE Mark Approval |

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