

# Fiber-to-the-Home

Beacon Series - BSMC-24P



The BSMC-24P is a high-performance, yet economical optical 24 port managed Ethernet switch with optical CATV signal splitting and multiplexing functions. It provides an ideal solution to deliver 'triple-play' services (data, voice and CATV) over a single-mode fiber for fiber-to-the-home (FTTH) or fiber-to-the-building (FTTB) applications.

The BSMC-24P offers up to 24 100Base-BX10 ports multiplexed with CATV optical signals. The BSMC-24P has a single CATV optical input as the splitting and multiplexing functions are built into the unit. This feature minimizes external component requirements such as optical couplers and fiber jumpers, thus providing a simple more cost effective design. Two 10/100/1000Base-TX ports provide for fast connection to the core data networks. The BSMC-24P's network management solution allows administrators to easily configure features, monitor performance, and troubleshoot using a standard Web browser and Simple Network Management Protocol (SNMP)-based network management platforms.

## ○ Features & Benefits

- Non-blocking store-and-forward shared-memory architecture with an 8.8Gbps switching capacity and an efficient self-learning and address recognition mechanism enables the forwarding rate to proceed at a full wire speed.
- 6K address table for auto-learned unicast or static unicast/multicast addresses.
- 7 trunk groups of up to 4 member ports within 26 ports with flexible load distribution control and fail-over function.
- Static priority and 802.1p Class of Service with 2-level priority.
- 802.1d Multiple Spanning Trees.
- Port-based VLAN and 802.1Q tag-based VLAN with 255 VLAN groups.
- Static MAC addressing and filtering.
- By-port Egress/Ingress bandwidth management control.

## ○ Specifications

### Network Management

In Band: SNMP, Web-based HTTP and Telnet.

Out of Band: RS-232 Console.

### Network Protocol and Standards

IEEE:

802.3, 802.3u, 802.3z, 802.3ab, 802.3ah, 802.1d, 802.1p, 802.1q, 802.1v, 802.3ad, 802.3x

IEFT:

RFC1157 SNMP, RFC 1112/2236 IGMP, RFC854 Telnet, RFC 1123/1493/1643 MIB

### Port Configuration

Gigabit ports:

Two 10/100/1000Base-TX RJ45 Ports

100Mbps Ports:

Up to 24 100Base-BX10 FC Ports Multiplexed CATV Optical signal

CATV Optical Signal Input Port:

Light power>15dbm, RF bandwidth 45MHz-860MHz.

### Optical Interface

100Base-BX10 Ports Multiplexed CATV Optical Signal

Single, Single-mode Fiber, Dual Wavelength 1550nm for CATV and 1310nm for data, SC/APC connector, operating distance 15km

### Power Supply Options

AC90-264V/1.2A max, 50/60Hz

Power Consumption: 45W

### Physical and

Dimensions:

19-inch rack-mount width, 2.0 RU high

Weight: 20 lbs., 9Kg

### Environmental

Operating temperature: 0 - 50 °C

Storage temperature: -25 - 55 °C

Humidity: 5% - 95% RH Non-condensing.

## ○ Ordering Information

Model	Stock No.	Description
BSMC-24P	7448	24 Port Multiplexed CATV Optical Ethernet Switch

# Fiber-to-the-Home

## Beacon Series - BSONU-4



### ○ Features & Benefits

- One 100Base-FX Single Fiber Network Port with CATV Overlay
- Four 10/100Base-TX Half/Full Duplex Switch Ports
- 2048 MAC Address Table (4-way hashing)
- Two Queues for QOS (1:2 or 1:4 or 1:8 or 1:16)
- Port-based, 802.1p and IP TOS Priority
- Port-based VLAN and Adjustable VLAN to Support up to 32 VLAN groups
- POTS Port to Provide VoIP Telephony Service
- Wide 45 MHz ~ 870 MHz Bandwidth Supports CATV Analog Channels or a Combination of Analog and Digital Channels Including HDTV Broadcast
- High Sensitivity of 15 dBmV RF Output at -3dBm Optical Input.

### ○ Specifications

#### Network Protocol and Standards

- IEEE802.3 10Base-TX Ethernet
- IEEE802.3u 100Base-TX Fast Ethernet
- IEEE802.3u 100Base-FX Optical Ethernet
- IEEE802.3ah 100Base-BX10
- IEEE802.3x Flow Control
- IEEE802.1p Priority
- IEEE802.1q VLAN
- H.323 V4
- MGCP RFC2705
- SIP RFC3261
- Net2Phone
- G.711, G.723 codec, G.165 Echo Cancellation, G.729
- TCP/IP, DHCP, RTP, RTCP, HTTP, FTP

#### Optical Interface

- 100Base-BX10 WAN Port: Single, Single-mode Fiber, Dual Wavelength (1550nm for CATV and 1310nm for Ethernet data), FC/APC Connector, Operating Distance 15km

#### Port Configuration

- One 100Base-BX10 WAN Port with CATV Optical Signal Overlay or One 100Base-BX10 WAN Port Plus One Optical CATV Port
- Four 10/100Base-TX LAN Ports
- One or two POTS Telephony (FXS) Ports and/or One PSTN Telephony (FXO) Port
- One 75 Ohm Coaxial-cable CATV Port with RF Bandwidth of 45-860MHz.

#### Physical

- Dimensions (L x W x H):  
9.5 x 6.75 x 6.625 in  
220 x 137 x 43 mm
- Weight: 1.5 Lbs, 0.7Kg

#### Environmental

- Operating Temperature: 0 - 50 °C to
- Storage Temperature: -25 - 55 °C to
- Humidity: 5 - 95% RH Non-condensing.
- PowerSupply: DC18-26V or AC15-18V Using External Adaptor
- Power Consumption: 10W

The BSONU-4 is a true triple-play Optical Network Unit (ONU) specifically designed to work with the BSMC-24P (Multiplexed CATV Optical Ethernet Switch). It provides an ideal solution for economical delivery of POTS telephony, data, and CATV analog signals or a combination of analog and digital channels, including HDTV broadcast, over a single-mode fiber to the user's premises in fiber-to-the-home (FTTH) applications.

The BSONU-4 combines the latest advancements in fiber optic and chip technologies with feature-rich network management controls to give the most advanced, yet affordable fiber-to-the-home solution. It integrates one 100Base-FX WAN port, one CATV coaxial-cable port, four 10/100Base-TX LAN ports for direct connection of up to four computers and a POTS telephony port to provide telephone services. The built-in Ethernet switch function permits all connected computers to communicate with each other and to share the Internet, resources, and files such as music, digital pictures, and other documents within the user's premises. All the computers can also share a printer which is connected anywhere in the house. The BSONU-4 makes it possible to play head-to-head computer games within the household or against Internet opponents at a speed of 100 times faster than ADSL.

### ○ Ordering Information

Model	Stock No.	Description
BSONU-4	7449	Optical Network Unit, 100 Base-TX , Integrated 4 Port switch, CATV,POTS