

## Single Ethernet Port VDSL2 Modem

### BiPAC 8600SM



**Billion's BiPAC 8600SM - delivering truly cost-effective, high-speed to enhance productivity.** VDSL, Very-high-bit-rate Digital Subscriber Line, is the next generation of DSL technology. With accelerated data rates, VDSL delivers high transfer speeds for bandwidth-consuming applications, like voice, video-on-demand, and IPTV services. Billion's BiPAC 8600SM has integrated VDSL2 technology to provide amazing bandwidth for users who want to fulfill their vision of the digital home or improved office productivity. Due to the characteristics of faster rates and shorter distances offered by VDSL2, it is an ideal and cost-effective solution to use fiber optic lines as the backbone and a VDSL line as the last mile into the home or office. Then, ISPs and Telcos (operators and carriers) can deliver more diversified multimedia services to end customers.

- Very high speed VDSL2 transmission
- Supports 3/4/5 bands
- Asymmetric mode up to 100/45Mbps
- Suitable for MTU/MDU environments
- Easy installation
- Ideal for residential users

### Benefits

#### Very High Speed Data Transmission

BiPAC 8600SM complies with the VDSL2 standard. It offers greater bandwidth and a higher downstream rate, up to 100Mbps, for gradually increasing bandwidth-consuming applications. Home users can enjoy smooth media-rich entertainment; SOHO or small business users can enjoy high-quality symmetric and asymmetric Internet access.

#### Bundle Over Existing Copper Wires

VDSL operates over copper wires so that telecom operators can provide bundled services to end-users similar to what cable operators offer. With outstanding throughput, the BiPAC 8600SM can complement a fiber network to offer the best solution for delivering IPTV or home entertainment services.

#### Easy Installation

The BiPAC 8600SM is easy to install and reduces installation effort and expense. Simply connect the hardware interface without needing any software configuration, it connects users to the Internet because it is fully compliant with all kinds of network protocols.



## Features & Specifications

### VDSL Compliance

- Compliant with VDSL Standard
  - ITU-T G.993.1
- Compliant with VDSL2 Standard
  - ITU-T G.993.2
- ANSI T1.424
- ETSI TS 101 270
- China MI
- Modulation Method: DMT
- Ethernet over VDSL
- G.993.2 VDSL2 (Profile 8a, 8b, 8c, 8d, 12a, 12b, 17a support)
- Band Plan 997 and 998 support
- Supports 3/4/5 bands
- Supports up to 100Mbps downstream and 45Mbps upstream

### Network Protocols and Features

- Transparent bridging
- Ethernet over VDSL (EoVDSL) Bridging
- IEEE 802.3/3u/3x
- Flow control in full duplex mode
- Back pressure in half duplex mode

### Management

- Firmware upgrade through special utility (on demand)

### Hardware Specifications

#### Physical Interface

- DSL: one RJ-11 VDSL port
- Ethernet: one RJ-45 10/100 Ethernet port
- Reflash button
- Power jack
- Power switch

#### Physical Specifications

- Dimensions: 7.09" x 4.72" x 1.57"  
(180 mm x 120 mm x 40 mm)

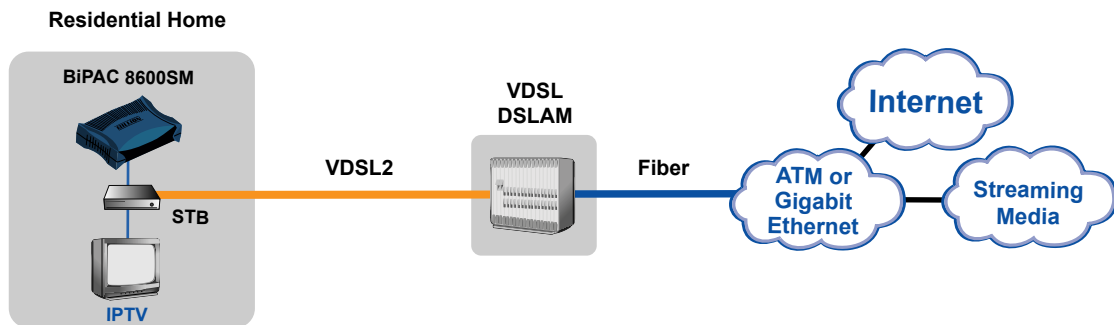
#### Power Requirements

- Input: 12 V AC, 1 A

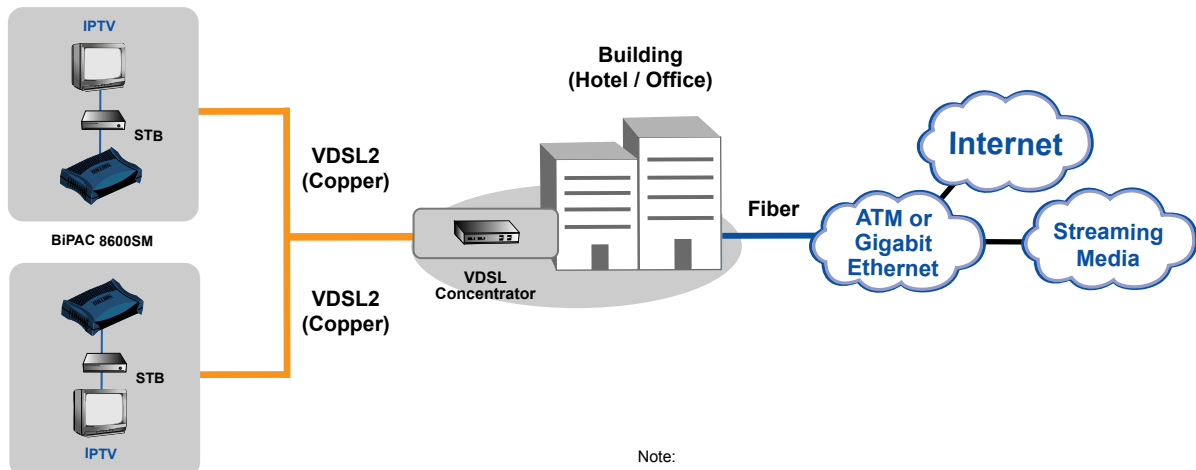
### Operating Environment

- Operating temperature: 0 - 40 °C
- Storage temperature: -20 - 70 °C
- Humidity: 20 - 95% non-condensing

## Deployment scenario for VDSL using FTTN



## Deployment scenario for VDSL using FTTB



**Note:**

1. The modem may require firmware modification for certain VDSL/VDSL2 DSLAMs.
2. Specifications in this datasheet are subject to change without prior notice.

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