102M Gigabit VDSL2 Ethernet Extender
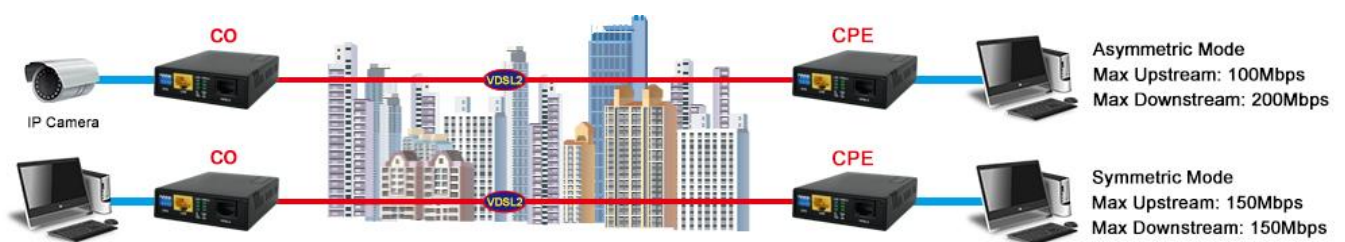
Introduction

Proscend 102M is an **Ultra-Speed Gigabit Ethernet Copper Extender** that supports a remarkable aggregated bandwidth up to **300Mbps**. (Downstream: 150 Mbps/Upstream: 150 Mbps) It delivers fiber-optic like speeds on existing copper infrastructure, enabling a good alternative in place where fiber is not economical to deploy. The **102M** is equipped with **a Gigabit Ethernet Port** (RJ-45 connector) and **one VDSL2 port** (RJ-45 connector). 8 different profile settings can be flexibly selected via dip switches to suit various applications and environments. Symmetric profile can be applied as a standard Ethernet connection while Asymmetric profile can be used for other services like Video streaming or IP surveillance services which require high traffic flow in an uni-direction configuration. The **102M** supports transparent LAN bridging to extend Ethernet service over UTP, Cat 5+ or Coaxial cables. With **Proscend 102M**'s superior performance in its category, it is the best high throughput Long Reach Ethernet Extenders for service providers to deploy their IP-based networking services to meet various application scenarios.

Features

- High speed Ethernet extension over UTP, CAT 5e/6/7 or Coaxial cables
- Support ITU-T G.993.5 G.vectoring and G.INP
- Selectable 8 different profile settings via Dip Switch (G.INP/Interleaved, Target SNR 6/8/12/24 dB, Symmetric/Asymmetric Modes)
- Compatible with Proscend and third-party VDSL2 IP DSLAM when operates in CPE(RT) mode
- Configurable SNR profile for noisy environment
- Cost effective bridge function to connect two Ethernet LAN
- IEEE 802.1Q VLAN tag transparent
- Easy installation via simple plug-and-play

Specifications

VDSL Interface

- RJ-45 connector
- DMT Encoding
- Complying with ITU-T G993.1/G993.2/G993.5/G.997.1/G.998
- G.INP
- On-board surge protection

LAN Interface

- 1 x RJ-45 connector
- 10/100/1000 Base-T; Auto-Negotiation, Auto-MDI/MDI-X.
- Complying with IEEE 802.3/802.3u/802.3z

4-position DIP Switch

- Selectable Master(OT) or Remote(RT) mode
- Selectable 8 different profile settings via Dip Switch (G.INP / Interleaved, Target SNR 6/8/12/24 dB, Symmetric / Asymmetric Modes)

LED

- Power: On/Off
- LAN: Fast Ethernet/Gigabit Ethernet
- VDSL2: Mode – CO(OT) / CPE(RT)
  Sync - Idle / Training / Link

Power Supply

- 12~24 Vdc over 2.1mm DC Jack
  (Commercial Grade External Power Adaptor included)
- Power Consumption: 4.5 Watts (Max)
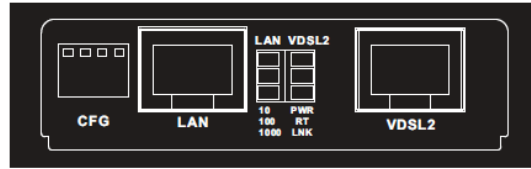
Physical Characteristics

- Dimension (W x H x D): 96.2 x 22.8 x 73.4 mm
- Installation (Optional): Wall Mounting / Media Converter

Environment

- Operating Temperature: 0°C ~45°C
- Humidity: 0%~95%RH (non-condensing)

Regulatory Compliance

- CE Class A
- FCC Part 15B Class A
- EN60950

Front Panel

Performance

UTP, 26AWG		
Profile Setting 1: Symmetric, SNR 8dB, G.INP		
Distance (Feet)	Upstream Line Rate (Mbps)	Downstream Line Rate (Mbps)
500	155	158
1,000	122	126
1,500	75	80
2,000	48	56
2,500	28	38
3,000	23	28

UTP, 26AWG		
Profile Setting 1: Asymmetric, SNR 8dB, G.INP		
Distance (Feet)	Upstream Line Rate (Mbps)	Downstream Line Rate (Mbps)
500	100	200
1,000	77	170
1,500	38	105
2,000	22	64
2,500	10	43
3,000	9	42
4,000	6	34

**The above performance data is for reference only, the actual data rate may vary depending on the quality of the coaxial cable and environmental factors.

Ordering Information

Model Name	Description
102M	Gigabit VDSL2 Ethernet Extender with a Gigabit Ethernet port and one VDSL2 connector

* Features and specifications are subject to change without prior notice.

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