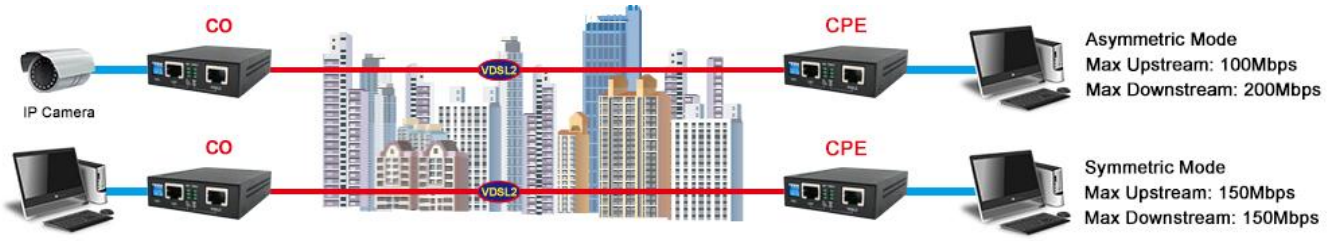
102MI Lite Industrial Gigabit VDSL2 Ethernet Extender

Introduction

Proscend 102MI is a **Lite Industrial Grade 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 **102MI** is equipped with **a Gigabit Ethernet Port** (RJ-45 connector) and **one VDSL2 port** (RJ-45 connector) in metal enclosure for easy installation in harden environment. 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 **102MI** supports transparent LAN bridging to extend Ethernet service over UTP, Cat 5+ or Coaxial cables. With **Proscend 102MI**'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 in harsh environment.

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
- Support wide operating temperature range
- Cost effective bridge function to connect two Ethernet LAN
- IEEE 802.1Q VLAN tag transparent
- Easy installation via simple plug-and-play in harsh environment



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, 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

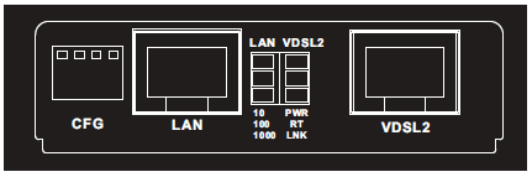
Power Supply
- 102MI-AC: 12~24 Vdc over 2.1mm DC Jack (Commercial Grade External Power Adaptor included)
- 102MI-DC: 12~24 (7.5-30 Max) Vdc over terminal block
- Power Consumption: 4.5 Watts (Max)

Power Wiring (102MI-DC)
- 2-PIN Terminal Block
- Wire range: 0.2 mm² to 2.5 mm²
- Solid wire (AWG):12-28
- Stranded wire (AWG): 12-30
- Torque:5 lb-In / 0.5 Nm / 0.56 Nm
- Wire strip length: 7-8 mm
- Max wire length: 3m (9.84 ft)

Physical Characteristics
- Dimension (W x H x D): 96.2 x 22.8 x 73.4 mm
- Installation (Optional): Wall Mounting or Din Rail

Environment
- Operating Temperature: -20°C ~65°C
- Humidity: 0%~95%RH (non-condensing)

Regulatory Compliance
- CE Class A
- FCC Part 15 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	54	129
1,500	49	112
2,000	39	84
2,500	23	60
3,000	11	45
4,000	6	40

**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
102MI-AC	Lite Industrial Gigabit VDSL2 Ethernet Extender (With Commercial Grade External AC to DC Power Adaptor)
102MI-DC	Lite Industrial Gigabit VDSL2 Ethernet Extender (12~24 Vdc over Terminal Block)

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

2F, No.36, Industry East Road IV, Hsinchu Science Park, Hsinchu, Taiwan. 300
Tel: +886-3-5639000 Fax: +886-3-5633830 Email: sales@proscend.com
PROSCEND® Proscend Communications Inc.
www.proscend.com