*preliminary*

# MiVDSL

## VDSL2 SFP for Any-PHY Platform

- Extends the 100 m (328 ft) distance limit for Ethernet connectivity via copper wire up to 3 km (9842 ft)

- Supports VDSL2, ADSL2/2+ bridged modem functionality

- Small-Form-Factor that can be plugged into any Ethernet switch with SFP ports

MiVDSL SFP provides two modifications (LRE and Telco) for different applications by customer request:

- LRE model supports end-to-end Long Reach Ethernet for CO and CPE respectively

- Telco model complies ITU-T G.99x standard with supporting AVD2 CPE mode only

### MARKET SEGMENTS AND APPLICATIONS

For Industrial Ethernet market, SFP interface is popular and widely available in unmanaged and managed switches. RAD's VDSL based LRE SFP provides this market with an instant way to extend the Ethernet connection from limitation of 100m to 3km via copper wire. The benefit for industrial Ethernet system providers, the LRE SFP can enrich their product portfolio with less effort and quick time to market. For Telco xDSL CPE or home gateway application, there are many devices that have an SFP interface which is reserved for future bandwidth expansion. By taking this advantage of the existing SFP interface, xDSL SFP module can be easily applied to the device hence the device can be adapted to use PON/xDSL/Ethernet SFP by user's bandwidth requirements.
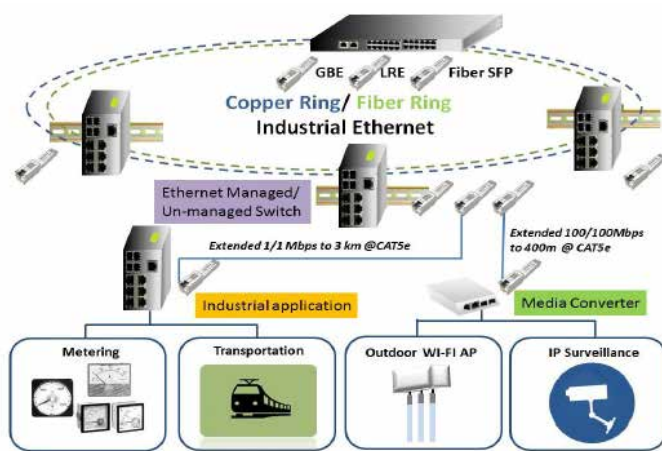
## Specifications

### HOST INTERFACE

**Type**
1.25 Gbps TX Serdes

**Connector**
RJ-45

**Data Rate**
100 Mbps

**Range**
See *Table 1* for a list of profiles

### GENERAL

**Physical**
Height:  10.5 mm (0.41 in)
Width:    13.8 mm (0.54 in)
Depth:    75.0 mm (2.95 in)

**Power**
3.3V

**Power Consumption**
17A – up to 2.3W

30A – up to 2.4W

**Environment**
Operating temperature:
    -40 to 85°C (-40 to 185°F)

Humidity: Up to 90%, non-condensing



Figure 1. xDSL SFP Application Field

RAD
*Your Network's Edge®*

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## Ordering

**MiVDSL-L-O**
LRE CO model with 8 option profiles

**MiVDSL-L-R**
LRE Remote CPE model

**MiVDSL-T-R**
Telco Remote CPE model

Table 1.  Supported Profiles

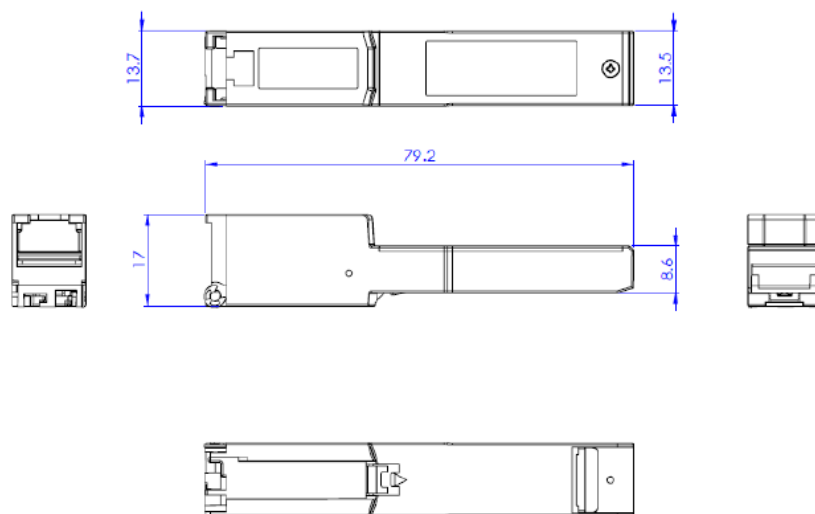| Item | Profile | Rate Limit (DS/US) [Mbps] | Target Margin (DS/US) [Mbps] |
|------|---------|---------------------------|------------------------------|
| Item 1 | M-Sy-Auto G.inp_17/2/41 | 160/160 | 8/8 |
| Item 2 | M-NSy-Auto G.inp_17/2/41 | 220/110 | 8/8 |
| Item 3 | M-Sy-Auto I_8/2 | 160/160 | 6/6 |
| Item 4 | M-NSy-Auto I_8/2 | 220/110 | 6/6 |
| Item 5 | M-Sy-Auto G.inp_17/2/41 | 150/150 | 12/12 |
| Item 6 | M-NSy-Auto G.inp_17/2/41 | 200/100 | 12/12 |
| Item 7 | M-Sy-30a-D2.2M G.inp_17/2/41 | 20/20 | 24/24 |
| Item 8 | Annex-A-17a-eu32_I_8/2 | 150/50 | 6/6 |



Figure 2. Mechanical Diagram

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