

Version 1.0

SFP-VDSL2-LRE-SP

SFP MODULE INTEGRATED VDSL-2 CO/CPE



Introduction

The problem of Ethernet range limitations is resolved! Ethernet network reach can now be expanded using VDSL technology end-to-end with a pair of master-slave SFP modems. The VDSL LRE SFP empowers an Ethernet-based network to transcend the traditional 20-80 meter Ethernet barrier. These industrial-grade extenders deliver high-speed Gigabit Ethernet connections over existing copper infrastructure, offering a cost-effective and reliable solution for extending network reach without new cabling.

Key benefits

Maximize Network Uptime: Engineered for demanding environments, the VDSL LRE SFPs ensure uninterrupted connectivity, even in challenging conditions.

Effortless Installation: Compatible with most 1000BASE-FX SFP ports, these extenders integrate seamlessly into the existing network infrastructure.

Optimized Performance: This unique pairing method automatically selects the optimal speed settings for maximum throughput, regardless of cable type or distance.

Boost Productivity: Extend the network to remote locations, enabling seamless data transfer and collaboration.

Cost-Effective: Avoid the cost and disruption of new cable installations by leveraging the existing copper infrastructure.

Hot plug-in: Network (dis)connection can be made without interrupting or resetting the routers or switches.

Single Pair: Unlike classic Ethernet RJ-45-based 4- pairs interconnection this expanded reach with SFP-VDSL2-LRE-SP requires only 2-wire cables for a high- speed full duplex communication link.

Investment Protection: Future- proofs the network with advanced technology.

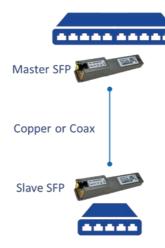
Customer satisfaction: Delivers instantly higher connection speed to a wider subscription base.



Typical application



LAN, WAN, computer networkin





Building automation



M2M Connectivity



Data Acquisition



Video Surveillance



Mobile backhaul

Specifications

Key features: Compatible with most 1000BASE-FX SFP Ports

High-speed Ethernet extension over UTP CAT 5e/6/7, Telephone (1 Pair), or Coax cable

Typical bitrate performance (CAT 5e cable):

Distance	Speed (Master to Slave)	Speed (Slave to Master)
200m	160Mbps	150Mbps
500m	100Mbps	100Mbps
1000m (1 km) or 3.280 feet	25Mbps	25Mbps
1500m (1.5 km) or 5.000 feet	20Mbps	13Mbps
3000m (3 km) or 10.000 feet	4Mbps	2Mbps

IEEE 802.1Q VLAN tag transparent

Automatic selection of the optimum speed for the connected cable type and distance

IEEE 802.1Q VLAN tag

Industry-standard Small Form-Factor Pluggable (SFP), plug-and-play

VDSL2 transmission modes ITU-T G.993.2 Amd.1-7, G.994.1, G.997.1, G.998.4

VDSL2 profiles: 8a, 8b, 8c, 8d, 12a, 12b, 17a, 30a

Advanced communication features built in VDSL2 Advanced error correction

Efficient Bandwidth Utilization for maximizing network capacity

Power-Efficient Operation (PBO) for energy savings

Hardware RJ-45 (LRE Port)

SERDES connector to host

LED 1 (CO/ CPE indicator) / LED 2 (PWR/ Link Status indicator)

Software Self-Boot & Managed by Internal Flash

Linux driver for managed devices System setting via the EBM program

Power 3.3V, 700mA



Specifications (suite)

Environmental Operating Temperature : -20 ~ +75 °C

Storage Temperature : -40 ~ +85 °C

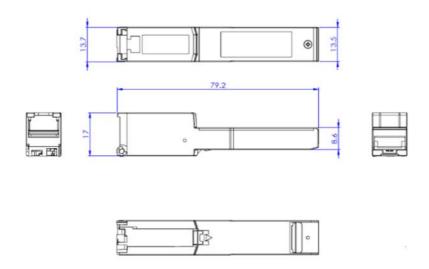
Operating Humidity : 5% to 90% (non-condensed) Storage Humidity : 5% to 95% (non-condensed)

ESD Standards : Contact: +/-4KV | Air: +/-8KV (EN 61000-4-2) Radiated RFI Standards Strength : 10V/m (EN 61000-4-3)

EFT/BURST Standards Power : 2KV Signal: 1KV (EN 61000-4-4) S Surge Immunity Standards Power: 2KV Signal:1KV (EN 61000-4-5)

Regulatory CE / FCC, EMC

Dimensions



Ordering Information

Part #	Description
SFP-VDSL2-LRE-SP-CO	Gigabit SFP with VDSL2 modem, mode CO, adaptative in speed up to 150 Mbps or distance up to 3 km, power consumption2.1 W, operating temperature range -20 to +75 °C
SFP-VDSL2-LRE-SP-CPE	Gigabit SFP with VDSL2 modem, mode CPE, adaptative in speed up to 150 Mbps or distance up to 3 km, power consumption 2.1 W, operating temperature range -20 to +75 °C

