

# VX-160CE

VDSL2 SFP Modem (Remote Telco Grade)



## Overview

Versa Technology's VX-160CE is a VDSL2 SFP modem that interconnects with Gateway Processor by using a MSA (MultiSource Agreement) compliant hot pluggable electrical interface. The chipset inside the VDSL2 SFP modem supports all VDSL2 profiles that are defined by ITU-T G.993.2, G.994.1, G.997.1 among other standards, ensures its interoperability with all existing broadband network services. Furthermore, Versa's VX-160CE also features the latest ITU standards such as G.inp (G.998.4) and G.vector (G.993.5).

## Key Features

As broadband access technology has evolved rapidly, Service Providers need to upgrade their broadband network service every few years. Traditionally, Service Providers have replaced the entire CPE device in order to provide subscribers with faster Internet services. Not only does it increase their CAPEX and OPEX but also wastes resources and increase inventories. Leveraging the VX-160CE VDSL2 SFP in Service Providers' product portfolio will help them significantly reduce the software porting and testing effort and shorten their product time-to-market.

Versa Technology's VX-160CE VDSL2 SFP modem realizes the modulation of VDSL2 broadband access. It can be integrated with routers, switches or residential gateways that are equipped with a SFP type of WAN interface. There's no need for Service Providers to maintain more than one type of CPE device in the field or in the warehouse, moreover, this also can give them the possibility to future upgrade. Users can upgrade to any broadband access data rate easily only by plugging in different type of WAN SFPs such as VDSL2 35b/G.fast or optical TRx SFPs with the same internet box and user interface.

- Support all VDSL2 standards defined in ITU –T G.993.2, G.994.1, G.997.1
- MSA compliant hot pluggable electrical interface
- Support G.inp (G.998.4) and G.vector (G.993.5)

# Specifications

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## VDSL2 Transmission Modes

VDSL2 Profiles	<ul style="list-style-type: none"><li>• 8a, 8b, 8c, 8d, 12a, 12b, 17a, 30a</li></ul>
Data Rate	<ul style="list-style-type: none"><li>• Up to 100 Mbps upstream / 100 Mbps downstream</li></ul>
Annex	<ul style="list-style-type: none"><li>• A/ B/ C</li></ul>
Parameter	<ul style="list-style-type: none"><li>• 997.1 Compliant</li></ul>
Configurability	<ul style="list-style-type: none"><li>• Implement the system setting via the EBM Program</li></ul>

## Advanced Features from ITU

G.inp	<ul style="list-style-type: none"><li>• Supports G.inp described by ITU</li></ul>
G.vector	<ul style="list-style-type: none"><li>• Supports all CPE features of G.vector</li></ul>
ROC	<ul style="list-style-type: none"><li>• Supports Robust Overhead Channel</li></ul>
Dual Latency	<ul style="list-style-type: none"><li>• Supported</li></ul>
OLR	<ul style="list-style-type: none"><li>• Supports bit swapping, SRA, SoS and dynamic Interleaver depth (D) change</li></ul>
US0	<ul style="list-style-type: none"><li>• Supported</li></ul>
PBO	<ul style="list-style-type: none"><li>• Both UPBO and DPBO supported</li></ul>

## Other Unique Features

Booting	<ul style="list-style-type: none"><li>• Serial Flash</li></ul>
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## QoS

- Flexible packet sorting based on Ether Type, VLAN ID or VLAN priority (supports QinQ).

## Network Interface

### Hardware

- RJ-45 female connector (Fully compatible with RJ-11 male connector)
- SERDES connect to host
- LED 1 (Remain Undefined)
- LED 2 (PWR/Link Status Indicator)

### Software

- Self Boot & Managed by Internal Flash
- Support Ethernet Boot & Management

### Power Requirement

- 2.1 W

### Power Supply

- 3.3 V

### Certification

- CE / FCC

## Environment

### Operating Temperature

- -40 to 85°C (SFP Cage)

### Storage Temperature

- -20 to 85°C

### Operating Humidity

- 10% to 90% (non-condensed)

### Storage Humidity

- 5% to 95% (non-condensed)

### Surge Protection

- 2kV