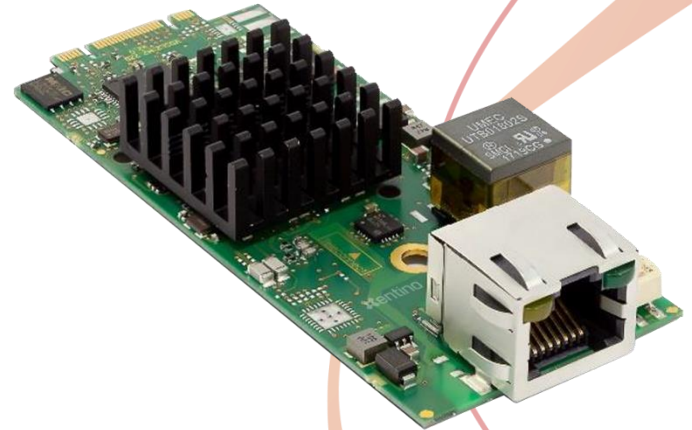## KEY FEATURES

- Support all VDSL2 standards defined in ITU-T **G.993.2**
- Support G.inp (**G.998.4**) and G.Vector (**G.993.5**)
- Enables connectivity of virtualization device over copper networks for vCPE or White Box
- Carrier Grade High quality and interoperability based on our long-term knowledge
- Support high speed data up to VDSL2 profile 30a (**Up to 200+Mbps**)

PRODUCT OVERVIEW

VDSL2 Applications and Benefits

Designed to support the wide deployment of triple play services such as voice, video, data and high-definition television (HDTV), VDSL2 is intended to enable operators and carriers to gradually, flexibly and cost-efficiently upgrade existing xDSL infrastructure. Regarding to the big fiber deployments on SDWAN projects needs efficent backup connections with initial copper cable infrastructure. It also enables additional WAN connection with ADSL/VDSL2 connection possibilities for White Box, Routers, Firewalls and some of enhanced CPE devices.

High Speed internet connection (200+ Mbps or 5Km)

- Data rates up to 200+ Mbps downstream and upstream on twisted pairs using a bandwidth up to 30MHz
- VDSL2: ITU-T G.993.2 Profiles 8, 12, 17, 30MHz
- ADSL: ITU-T G.992.1/3/5 Annexes A, M, L (oPOTS)
- ADSL: ITU-T G.992.1/3/5 Annexes B, J (oISDN)
- ITU-T G.993.5 Vectoring
- ITU-T G.998.4 PHY Layer Re-Transmission profiles up to 30 MHz

Software Services and Features

- Ethernet-to-PCIe Bridge (Standard NIC-Drivers)
- Gigabit Ethernet link to Ethernet-to-PCIe bridge
- Features depending on M.2 connector type (B+M):
    - o Core functionality at the PCIe lane 0 (available for key B and key M) for data and in-band management
    - o Additional function out-of-band management over USB (only for key B)

** ADSL2/ ADSL2+ backward compatibility is possible, but currently not guaranteed or officially supported across all DSLAM vendors. Xentino is working with the relevant manufacturers to broaden support over time

VDSL2-EFM Modem

- Plug & Play VDSL2 module for M.2
- ADSL fallback (auto-detection)
- Ethernet Controller
- Available for oPOTS and oISDN regions
- M.2 connector (Key B+M)
- Fully transparent bridge for VDSL2 and ADSL (1 VC), to enable routing on host
- Made for universal enterprise CPE like uCPE / IAD / Gateway / Router / PC / White Box CPE
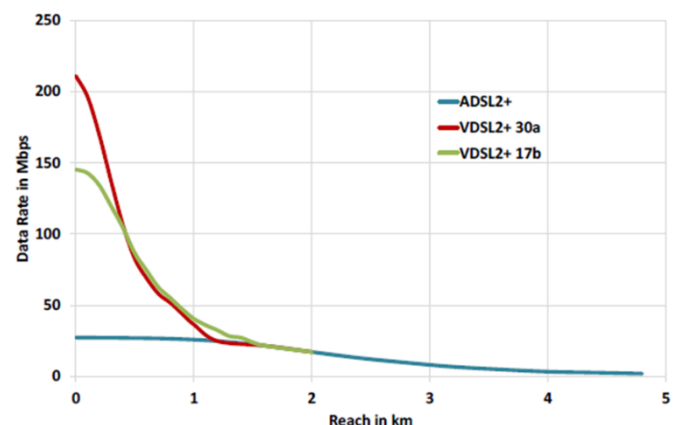
Features

VDSL2 Transmission Modes		ADSL2+ Transmission Modes		Advanced Features from ITU	
VDSL2 profiles	8a, 8b, 8c, 8d, 12a, 12b, 17a, 30a	Annex	A/L (B/M is optional by request)	G.inp	Supports G.inp described by ITU
Data rate	Up to 200 Mbps upstream / 200 Mbps downstream	Data rate	Up to 24 Mbps	G.vector	Supports all CPE features of G.vector
Annex	A/B	Modes	PTM & ATM (AAL5 and OAM cells)	ROC	Supports Robust Overhead Channel
Parameter	997.1 Compliant	PVC	Up to 8 PVCs	Dual latency	Supported

Specifications

Connector	M.2; 1 × RJ45 for ADSL / VDSL2	Data Rate	ADSL2+ up to 24 Mbps, VDSL2 up to 200 Mbps
xDSL chipset	VRX220 Family (PSB 80220)	Connection	PCIe via M.2 (one lane)
Versions	oPOTS (Annex A), oISDN (Annex B)	Management	in-band (Telnet), out-of-band (USB)
Standards	ADSL ITU-T G.992.1/3/5, VDSL2 ITU-T G.993.2, TR-048/067, TR-100, TR-114, ITU-T G.inp, ITU-T G.vector	Impulse overvoltage protection	1.5 kV (K.21 or K.21 enhanced with an external protection circuit only)
M.2 Key	B or M	Fallback	ADSL fallback (auto-detection)
Dimensions (LxWxH)	85mm x 35mm x 15mm	Weight	22gr
Working Temperature	0°C to +40°C		

Measurements