RP-VC102EMP
Ethernet over VDSL2 Converter, w/ 802.3af PoE

R RP-VC102EMP is a VDSL2 LAN Extender providing a broadband transmission up to 100/100Mbps for downstream/upstream over single pair copper line for point-to-point Ethernet connectivity.. With 100/100Mbps data rate, RP-VC102EMP supports transmission distance up to 300 meters and less data rate for 2km long range connection.   Users may also select a fixed data rate or a fixed SNR margin for different copper line ranging.

With plug and play features and minimum installation time, a pair of RP-VC102EMP is indeed a cost-effective solution for bandwidth-hungry applications. such as video streaming, or FTTB over single twisted pair telephone wires or coaxial cables.

In some of the working environments, RP-VC102EMP is capable of power up the device regardless it is embedded with PoE or not which can be used with PoE splitter. Enable RP-VC102EMP to work with local power facilities, and perform PoE over 100 meter LAN line perfectly
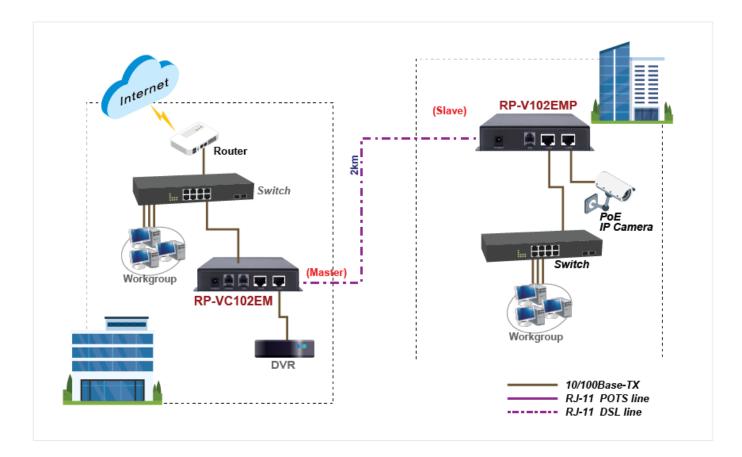
Features

- Compliant with ITU-T G.993.1, G.993.2 VDSL2 Standard
- Compliant with IEEE 802.3af and mid-span PoE PD (powered device)
- VDSL2 Profiles: 8a/b/c/d, 12a/b, 17a, 30a
- Supports Back-to-back applications
- Ethernet packets over VDSL2
- 100/100Mbps Downstream / Upstream for distance up to 300 meters
- Trellis Coding support up to 1024 Discrete Multi-Tone (DMT) bin
- Supports DSL connection up to 2000 meters
- Auto MDIX for 10/100BaseT Ethernet LAN Ports
- 4 Dip Switches for Master/Slave Configurations
- Low-Latency for Video/Voice/Data applications

Specifications

Standard	• IEEE802.3/IEEE802.3u standard • Ethernet over VDSL2 • ITU-T G.993.1/2, SG15Q4 DMT Compliance • IEEE802.3 af Power over Ethernet
Interface	• 1 RJ-45 10/100Mbps 802.3af PoE PSE port • 1 RJ-45 10/100Mbps Ethernet port • 1 RJ-11 Connector for EoVDSL2 • 4 DIP switch for mode selection
Cable	• RJ-45 (Ethernet): Category 3, 4, 5 UTP/STP • RJ-11 (EoVDSL2): Twisted-Pair phone wire
VDSL Transmission	• ITU-T G.993.1/2, SG15Q4 DMT Compliance • Trellis Code with 1024 DMT bins • Max Data Rate: 100/100 Mbps
LAN Features	• Auto-Detection for 10/100 Base-T and Half/Full duplex • High performance bridge for Ethernet extension • Fully compatible with IEEE802.3/IEEE802.3u • Auto MDIX Function
PoE/PSE features	• LAN1 embeds 802.3af, mid-span PoE PSE for up to 30w output • IEEE 802.3af Compliant with output voltage within 48DVC • Safety-Extra-Low-Voltage (SELV) Compliant • Maximum 30W PoE output • Power Auto Restart with Under Voltage Lockout (UVLO) Fault Detection
Data Rate & Distance	• Performance in AWG 26 Line at 6dB without rate limit <table><tr><th>Down Stream Data Rate (Mbps)</th><th>Up Stream Data Rate (Mbps)</th><th>Distance (feet)</th></tr></table>

Down Stream Data Rate (Mbps)	Up Stream Data Rate (Mbps)	Distance (feet)
100	100	1000
100	60	1200
90	44	1350
80	36	1500
70	27	1750
60	18	2000
48	11	2500
39	8	3000
35	3.5	3500
28	0.3	4000

LED indicators	• POWER: Power is ON • DSL: VDSL Loop Connection Status • LAN1 / LAN2: Data Activity of LAN Port • M/S: Master/Slave Selection
Power Supply	• External Power Adapter 48V/0.75A

Environment	• Operating Temperature: 0°C~ 40°C
	• Operating Humidity: 5%~95% (Non-Condensing)
Dimension	• 120 * 90 * 28 mm
Certifications	• CE, FCC

Application

Ordering information

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