



KEY FEATURES

- 200 Mbps Physical layer throughput
- Provides low cost CPE option for data service only
- Compact “plug in the wall” design with integral 10/100 Ethernet port
- Integral 802.1d bridge
- Supports Multiple VLAN's as well as QoS and CoS services
- Powerful management reduces cost of ownership

DESCRIPTION

PowerNet is a comprehensive family of Powerline Communication products designed to provide IP communications over existing utility power cables. The PowerNet product range offers an extensive portfolio of products providing all the functionality required from the head-end to the consumer.

The PowerNet CPE is an ideal CPE option for companies looking to deploy Ethernet based services rapidly, at low cost and with “zero install” overhead. This enabling technology provides a fully functional network connection for any Ethernet based hardware.

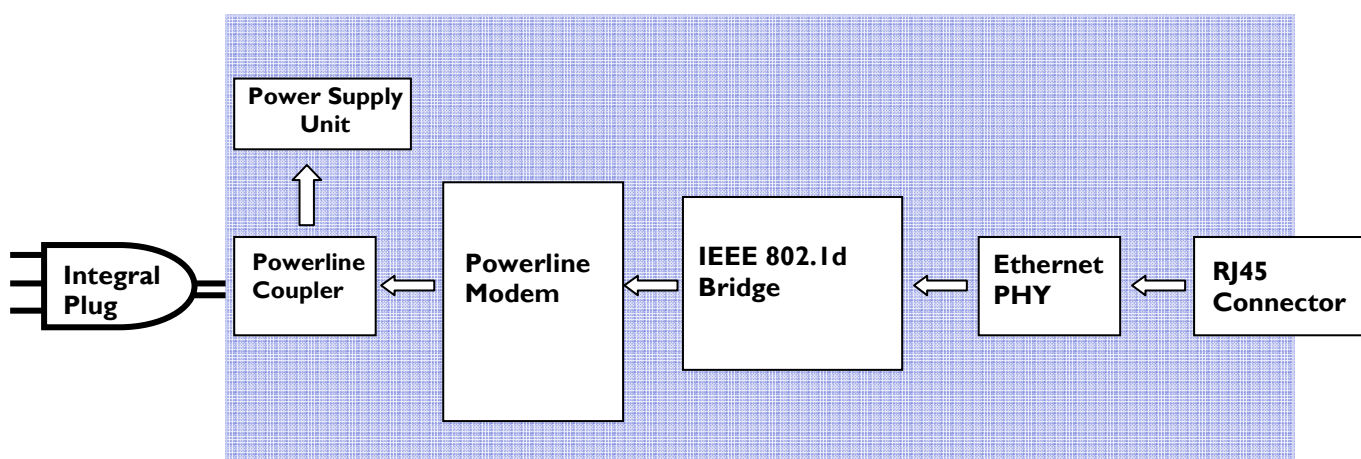
Measuring only 125x67x40(mm), the PowerNet CPE simply plugs into any power socket and provides instant Ethernet connectivity. All coupling and power supply circuitry is enclosed within the plastic enclosure.

Remote configuration and SNMP based management enables rapid provisioning, diagnosis and testing. Security is inherent in the architecture and additional privacy can be optionally configured using DES and 3DES algorithms.

The PowerNet is ideally suited to providing network connectivity in various applications such as ships, offshore platforms, multi-dwelling units, hotels, heritage sites / listed buildings, temporary locations, hard to wire locations, holiday home parks, marinas, rapid deployment locations and more !

This extensive collection of locations can be supplied with a range of services such as: access to standard server based office applications CCTV, IPTV, Broadband, VoIP, digital signage, WiFi-Hot Spots, Condition Base Monitoring systems and point of sale terminals to name but a few.

POWERNET CPE FUNCTIONAL DIAGRAM



POWERNET LOW COST CPE

FREQUENCY USAGE

- 3-34 MHz configurable for 10,20 or 30MHz bandwidth
- Individual control of each carrier
- Supports deep notching in pass-band for interference control and local EMC regulatory compliance

TRANSMIT POWER SPECTRAL DENSITY

- < 50 Dbm/Hz

MINIMUM RECEIVE LEVEL

- -70 dBm (no interference)

DYNAMIC RANGE

- 90dB

MODULATION

- OFDM with 1536 carriers
- Bit loading per carrier adjusts in response to received SNR

TYPICAL RAW THROUGHPUT

- 205 Mbit/s with 40dB attenuation @30Mhz bandwidth
- Upstream and downstream time multiplexed

TYPICAL APPLICATION THROUGHPUT

- 153 Mbit/s UDP with 40dB attenuation @ 30Mhz bandwidth

CoS AND QoS

- Packets automatically classified with 802.1p, IPTOS priorities or user defined criteria
- Up to 8 service classes
- Maximum latency and jitter programmable for each CoS

INTERFACES

- 1 x 10/100 Ethernet port

BRIDGING

- Integral IEEE 802.1d bridging between Powerline and Ethernet
- Support for up to 64 MAC addresses

CONFIGURATION

- Automatic using DHCP, TFTP and Radius
- Remote upgrade on demand

MANAGEMENT

- Integral management agent with support for SNMP v1, v2 and v3

SECURITY

- IEEE 802.1q VLAN
- Proprietary VLAN
- DES and 3DES encryption

ENVIROMENTAL

- Operating temperature -40°C to +50°C (no fan)
- Humidity 20-95% non condensing

EMC

- Conforms to FCC Part 15 limits
- Carrier output can be adjusted to meet local limits

POWER SUPPLY

- 100-240VAC 50/60 Hz
- Max consumption 6.5W

PACKAGING

- Dimensions (mm) : 67(w) x 125(h) x 40(d)
- Environmental Rating : IP20

