

OVERVIEW

The AN MV Network Modem and Coupler provides reliable communications over MV powerlines.

This solution maintains sufficient network bandwidth for applications requiring real-time communications and is a cost-effective approach to applications requiring robust, reliable communications coverage over the wide area (up to 10 km distance) covered by MV powerlines.

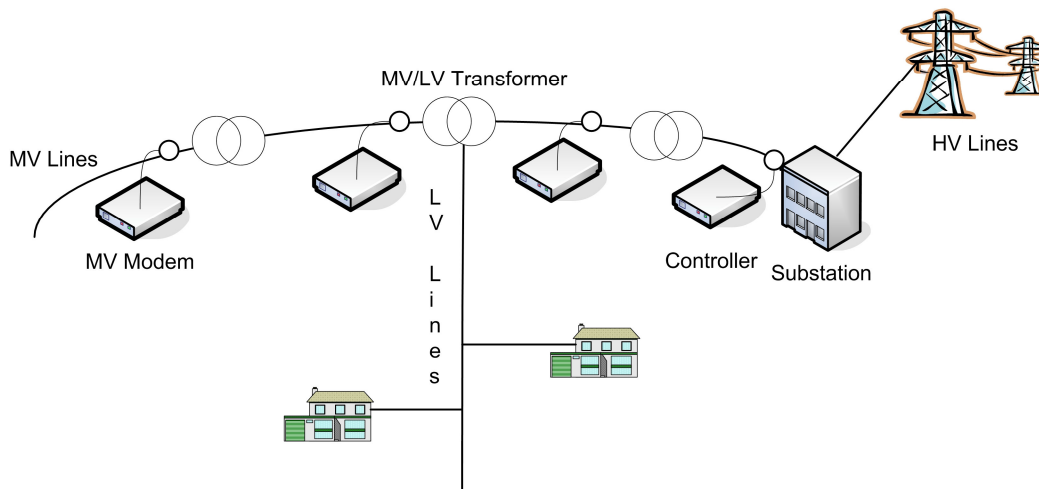
Adaptive Networks' unique approach utilizes powerline-optimized wideband modulation, adaptive equalization, rapid synchronization, error-control coding and powerline optimized token passing protocols. The foundation of this approach is adaptive equalization permitting dynamic adaptation to the inconsistencies of the powerline.

The AN MV Network Modem can be used to provide an error-free transparent link between multiple nodes on a MV network supporting various industrial protocols.

Delivering 100 kbps throughput to end-user applications, this solution is suitable for demanding control, automation and monitoring applications that require connectivity over the MV powerline network.

FEATURES

- 100 kbps application-usable throughput
- Wide area MV communications up to 10 km
- Powerline-optimized wideband modulation.
- Rapid synchronization
- Adaptive equalization for adaptation to rapidly changing powerline conditions
- Reliable low latency communication
- QoS support inherent in SAR and MAC
- Powerline-optimized Forward Error Correction (FEC) and ARQ
- Support for short frames
- Noise-immune token passing
- Support for large node populations
- Field-proven technology
- Robust performance in demanding real-world operating environments





PowerConnect™ MV Powerline Modem

SPECIFICATIONS

Network Throughput

- 100 kbps

Raw Data Rate

- 268.8 kbps

Modulation

- Wideband

Frequency Band

- Below 535 kHz
- Country-specific frequency band option

Data Interface

- RS-232, RS-485
- DB-9 female

BER

- $< 10^{-9}$

Error Detection

- Two level 16-bit CRC

Error Recovery

- FEC and ARQ

Number of Nodes

- 16-bit address space

Operating Distance

- On the MV power grid, up to 10 km

Operating Environment

- Up to 15 kV
- Up to 30 kV extended option

Line Coupling

- Inductive
- Capacitive

Status Indicators

- MSR - Master
- NTS - Network Sense
- ERR - Error
- PWR - Power

Operating Temperature Range

- -40°C to 70°C
- -40°C to 85°C extended temperature range option