

Corinex Medium Voltage Access Gateway

Introduction

The Corinex Medium Voltage Access Gateway product family turns a Utility power grid into a broadband communications backbone for Smart Grid applications and/or Broadband Access. Each MV Gateway contains three 200 Mbps Broadband over Powerline (BPL) modules which allows for efficient communication over MV lines (in FDD mode) and simultaneous injection onto LV lines, thus bypassing the noisy transformer.

A Corinex MV Gateway sends the BPL signal over distances of up to 1 km without the need for a repeater. The design allows for signals to bypass the transformers, so deployments end up using fewer devices, improving ROI. Corinex's patent-pending "Noise Resistant" (NR) technology in the MV Gateway offers industry-leading performance (for bandwidth and distance) under very noisy conditions in urban areas.

Each MV Gateway comes standard with two integrated Ethernet ports to allow connectivity to other devices. Automated internal frequency filters are optional in the units and allow MV Gateway networks to automatically configure their frequency bands, ensuring complete network scalability.

A 4-hour battery backup is optional to ensure that the BPL network is operational during outages. Each device is also fully compatible with all of Corinex's Access Products.



Features	MV Gateway	MV Gateway Noise Resistance
Transmission Line	1	2
#MV Couplers Required	1	2
Signal Propagation	Good	Better
Noise resistance	Good	Better
Internal RF Filters	Optional	Yes
Auto-Select Filters	Optional	Yes
Standard Frequency Filter	Yes	Yes
FCC/Aeronautical optimized Frequency Filters	Optional	Yes
Remote select between LV and Coax Coupling	No	Yes
4 Hours Battery Backup w/ Health Indicator	Optional	Optional

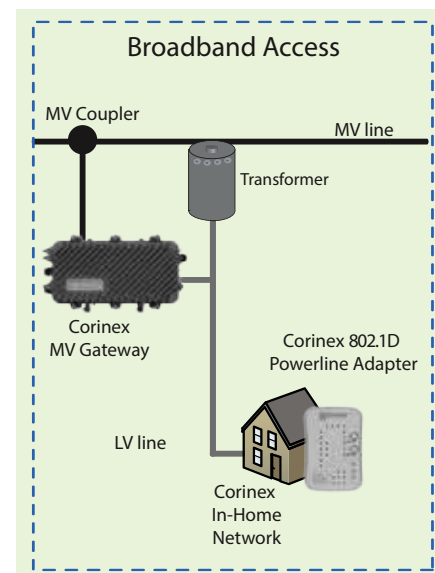
Applications

Consumer Services

Broadband Internet Access, VoIP, Video Streaming and Gaming.

Utility Services

- Automated Meter Reading
- Distribution Automation
- High-Impedance Fault/Downed Conductor Detection
- Transformer Evaluation and Monitoring
- SCADA
- Power Quality Monitoring
- Remote Control Load Balancing to maximize efficiency
- Advanced Network Management with GIS and Mapping Surveillance



Features:

All-in-one unit for both MV and LV networks with coaxial interfaces

200 Mbps backbone data rate with distances of up to 1 kilometer

Powerful 3DES/AES encryption

Integrated 802.1D Ethernet Bridge With Optimized Spanning Tree Protocol

8-level priority queues, with programmable priority Classification Engine

Priority classification according to 802.1P tags, IP coding (IPv4) or TCP source/destination ports

Remote management Capabilities with SNMP protocol support

OFDM technology and powerful error correction system allow robust performance under harsh conditions in the electrical/cable network

Configuration/Management via Corinex PowerNet

Technical Specifications

Model	Total VLAN + OVLAN TAGS	VLAN TAGS PER PORT	OVLAN TAGS PER PORT
CXP-MVA series	255	255	255

Standards Safety and EMI	IEEE 802.3u, 802.1P, 802.1Q, FCC Part 15G, OPERA EN 50412, EN 55022 Class B, EN 55024
Backbone Speed	Up to 200 Mbps on (PLC) physical layer 100 Mbps on Ethernet
MV/LV Powerline Type	Overhead Underground
Interface	MV: TNC-Type Coax Connector female (3x) LV: Power outlet RJ45 10/100 BASE-T (2x)
Frequency Range	2– 34 MHz
Power Input	85 to 265VAC, 50/60 Hz
Weight	7 kg
Dimensions	400mm L x 230mm W x 170mm H
Transmitted Power spectral density	-50 dBm/Hz
Power Consumption	35 W
Operating Temperature	-20° to 50°C (-4°F to 122°F)
Operating Humidity	5% to 95% non-condensing
Supported MAC addresses	2048
Environmental Class	IP68

Product Specification

Product Code	Features
CXP-MVA-GWY	Standard Version – Requires external filters (2 external filters included)
CXP-MVA_GNR-A1	Noise Resistant Gateway with built-in auto-select filters
CXP-MVA_GNR-A1-B	Noise Resistant Gateway with built-in auto-select filter and battery
CXP-MVA_GNR-A2	Noise Resistant Gateway with built-in FCC auto-select filters
CXP-MVA_GNR-A2-B	Noise Resistant Gateway with built-in FCC auto-select filters and battery



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