

Corinex Medium Voltage Access Gateways

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 200Mbps Broadband over Powerline (BPL) modules which allow communications over MV lines (in the efficient FDD mode) and simultaneous injection into LV lines (bypassing the transformer).

A Corinex MV Gateway can act as a Head End or a Repeating device, with distances of up to 2 km (1.25 miles) between devices. In Smart Grid applications, Corinex technology even allows you to skip transformers, thus using less devices and improving ROI.

Corinex's patent-pending "Noise Resistant" technology in the MV Gateway – NR product delivers the industries best performance (bandwidth and distance) under heavy noisy conditions in urban areas.

Each MV Gateway comes standard with an integrated Ethernet port to allow for 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 2 hour battery backup is optional to ensure the BPL network is operational during outages. Each device is also fully compatible with Corinex end points including Corinex's AV200 series of CPE equipment and Corinex Powergate meters (BPL-enables meter).

Corinex MV Gateways, leading the industry in features, price and performance!

Applications

Consumer Services

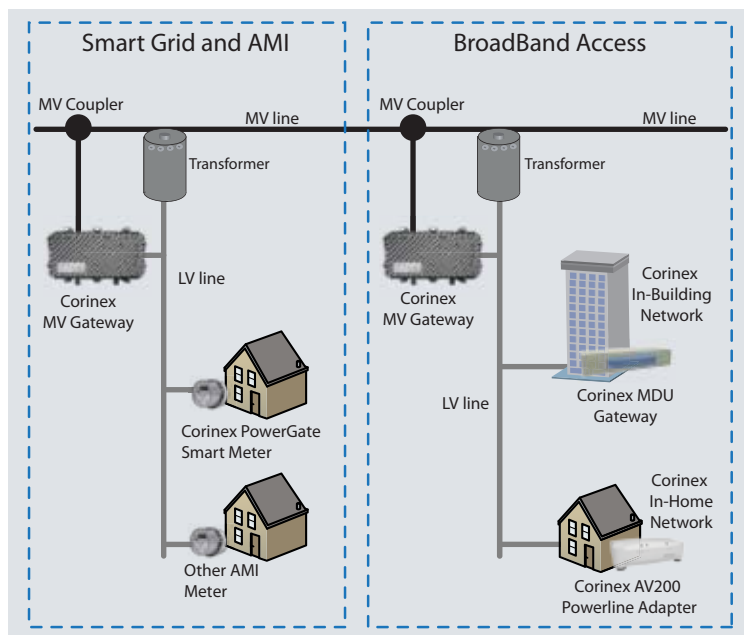
- Broadband Internet Access, VoIP, Video Streaming, Gaming

Utility Services

- Automatic 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	MV Gateway	MV Gateway Noise Resistant
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 Filters	Yes	Yes
FCC/Aeronautical optimized Frequency Filters	Optional	Yes
Remote LV Coupling Select	No	Yes
2 Hours Battery Backup w/ Health Indicator	Optional	Yes



Technical Specifications

Standards	IEEE 802.3u, 802.1p, 802.1Q, 802.1Q OPERA, FCC Part 15G
EMC	EN 55022 Class B, EN 55024, EN 50412
Electrical Safety	EN 60950-1:2001 IEC 60950-1 :2001
Backbone Speed	Up to 200 Mbps (TDD) Up to 85 Mbps (FDD)
MV/LV Powerline Type	Overhead Underground
Interface	MV: F-Type Coax Connector (TNC) LV: Custom Interface RJ45 10/100 BASE-T RS485 serial port
Frequency Range	2 – 34 MHz
Power Input	85 to 265 V AC, 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
Management	MIB SNMP
Modulation	OFDM with 1536 carriers uplink/ downlink, symmetrical, up to 10 bits per symbol adaptive per carrier.
Supported MAC addresses	2048
Enviromental Class	IP68

Features

- All-in-one unit for both MV repeating and LV coupling with moxex and coaxial interfaces
- 200 Mbps backbone data rate with distances of up to 2 kilometers
- Superior security with powerful DES/3DES encryption
- Remote management capabilities with SNMP protocol support
- Bridging Support for up to 2048 MAC addresses
- 802.1Q VLAN & Optimized VLANs
- OFDM technology and powerful error-correction system allow robust performance under harsh conditions on the MV/LV power lines
- 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 IPv6) or TCP source/destination ports
- MAC filtering - can discard ethernet frames if they come from a source MAC address which is not present in a list of allowed MAC addresses
- Configurable frequency notching of frequency bands, including Amateur Radio and Restricted Frequency Bands (FCC Bands)

Accessories (optional)

- Overhead Capacitive Couplers
- Underground Inductive Couplers

Product Code

CXP-MVA-GWY	Standard Version - Requires external filters (2 external filters included)
CXP-MVA-GNR-AI	Noise Resistant Gateway with built-in auto-select filters - Requires
CXP-MVA-GNR-AI-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 Resistance Gateway with built-in FCC auto-select filters and battery

Product features and design may vary by version and region.



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