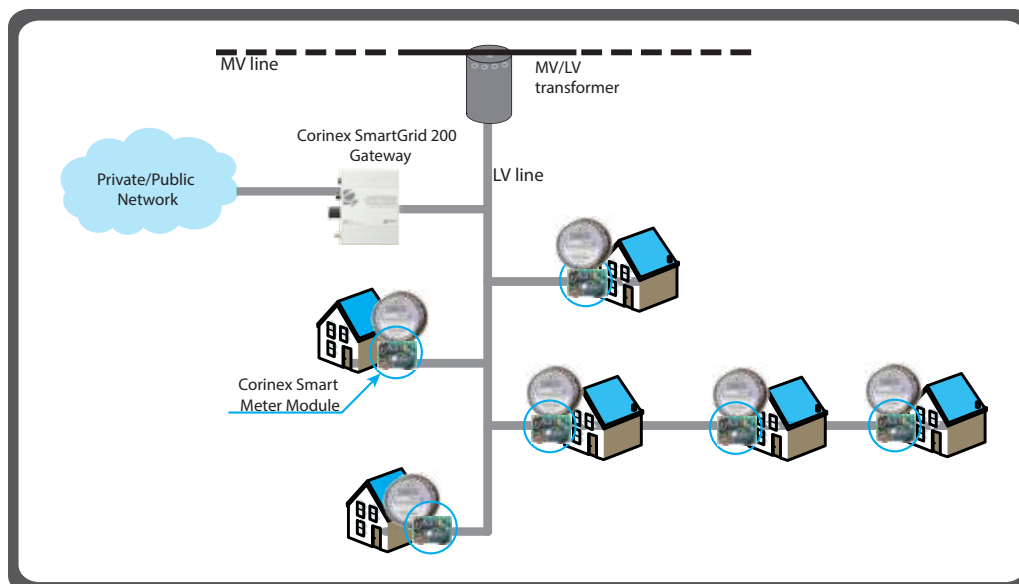# Corinex SmartGrid 200 Compact Gateway

Introduction

The Corinex SmartGrid 200 Gateway is the latest development in our portfolio of products that enables intelligent communications for AMI and SmartGrid deployments. The small, low-profile form factor allows these devices to be installed inside of street cabinets or other space-restricted enclosures. Utilizing high-speed PLC, the SmartGrid 200 Compact Gateway allows real-time, IP-based bidirectional communication between Corinex Smart BPL modules, using a self-healing ad-hoc tree network protocol for maximum reliability.

The Corinex SmartGrid 200 Compact Gateway establishes high-speed Plug & Play communication between the secondary utility substation and Smart BPL-enabled Meters. Each Smart Meter can function as a repeater, which allows for an easily extensible network requiring minimal planning, as each device will automatically configure itself for proper network operation as it connects to the Gateway. The SmartGrid 200 Compact Gateway connects to a backhaul (either private or public networks) to send data back to the NOC.

Features:

- High Capacity BPL processor
- IP-Enabled
- Management and configuration via Corinex SmartGrid Netman software
- Full bidirectional communication capability
- Supports up to 1000 nodes per cluster
- Supports ad-hoc tree networks
- Advanced self-healing network protocol for maximum reliability
- Robustness in 10 MHz band
- Built-in multi-phase coupler
- Industrial Grade IP56 Outdoor Housing

Product Specification

Product Code

	MAC Addresses	Powerline Modules	Product Code
Corinex Smart Grid200 Gateway	1024	1000	CXP-SG200-GWY

Features:

Physical data rates of up to 40 Mbps over distances up to 500 m (LV powerline) or 2000 m (MV powerline)*

IEEE 802.1Q conformant (VLAN-aware)

Powerful DES/3DES/AES-128 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

10/100BaseT Fast Ethernet interface for connection to the Internet Gateway

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

Optimized support for broadcast and multicast traffic Configuration/Management via Corinex Smart Grid Connect Head-End System

Integrated three phase coupler with line-to-neutral capacitive coupling

Technical Specifications

Standards Safety and EMI	IEEE 802.3u, 802.1P, 802.1Q, EN 50412, EN 55022, EN 55024, EN 60950
Backbone Speed	Up to 200 Mbps on physical layer 100 Mbps on Ethernet
Three Phase Coupler to Powerline	110VAC / 220VAC / 240VAC
Interface	10/100BaseT Fast Ethernet, AC Port, Powerline coupling Port, Coaxial Port, RS-485 port, DC port for backup battery
Frequency Range	2 - 12 Mhz (Mode 21)
Power Input	90 ~ 260 VAC @ 50/60 Hz, 12 VDC
Weight	2 kg
Dimensions	230 x 185 x 40 mm
Transmitted Power spectral density	-50 dBm/Hz
Power Consumption	7 W
IP Rating	IP56
Operating Temperature	-40° to 70°C (-40°F to 158°F)
Operating Humidity	10% to 80% non-condensing