EV8000 is designed with a programmable architecture that supports several modulation modes including orthogonal frequency division multiplexing (OFDM) technique that allows reliable data transmission under channel conditions with excessive impulsive noise. OFDM constellations ranging from BPSK to 256QAM are supported. Forward Error Correction (FEC) further improves the signal to noise ratio available under noisy channel conditions. EV8000 supports advanced coding algorithms to provide maximum system robustness under severe impulsive noise presence.

Standards and Implementations Supported:
- ITU G.9903 G3-PLC
- ITU G.9904 PRIME
- IEC 61334 S-FSK

EV8000 Specifications
- Integrated convergence layer up to and including 6LoWPAN and IEC 4-32, Media Access Controller (MAC), Physical Layer (PHY), and Analog Front End (AFE)
- Integrated 2MB Secure Flash memory
- Supports data rates of up to 1Mbps
- Compatible with
  - CENELEC A, B, C (10kHz to 140kHz)
  - FCC (10kHz to 490kHz)
  - ARIB (10kHz to 450kHz)
- SPI, I2C, and UART interfaces and PWM Counters
- OTW (Over The Wire) field upgrades
- Industrial temperature operating range (-40°C to +85°C)
- 100LQFP package
Network Diagram

- EnVerv head-end installed at transmission and/or distribution substations
- Multi-standard EnVerv head-end allows for connectivity with various meters with different technologies
- High-performance EnVerv EV8000 SoC ensures more service nodes per head-end and higher coverage

Applications

- Automatic Meter Infrastructure (AMI)
- Intelligent Lighting Control
- LED Array Control
- Home Automation
- Heating Ventilation & Air Conditioning (HVAC)
- Industrial Automation
- Sensor Control and Data Acquisition
- Remote Monitoring & Control
- Security Systems / Keyless Entry

EnVerv™

EnVerv: More Nodes, Higher Bit Rates, Robust Connections