



Advanced Metering Infrastructure

Split-Meter Display SoC with Integrated PLC

The EV8100 is a highly integrated system-on-chip (SoC) solution that combines the baseband modem with integrated Analog Front End (AFE) for power line control and communications applications as well as integrated u-controller and interfaces to drive an LCD display for in-home alert and monitoring applications.

The EV8100 incorporates the AFE (PHY) Media Access Control (MAC) and Applications Layers (AL) and offers multimode modulation supporting advanced OFDM line coding with proprietary algorithms to enable robust data transmission over power line networks. It also supports FSK and Spread Spectrum line coding to support legacy applications in existing power line networks.

EV8100 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.

One of the main applications of the EV8100 display modem SOC is in Split Meter Architecture in power networks where there is a need for the consumers to be aware of alerts and informative messages from the insides of their homes.

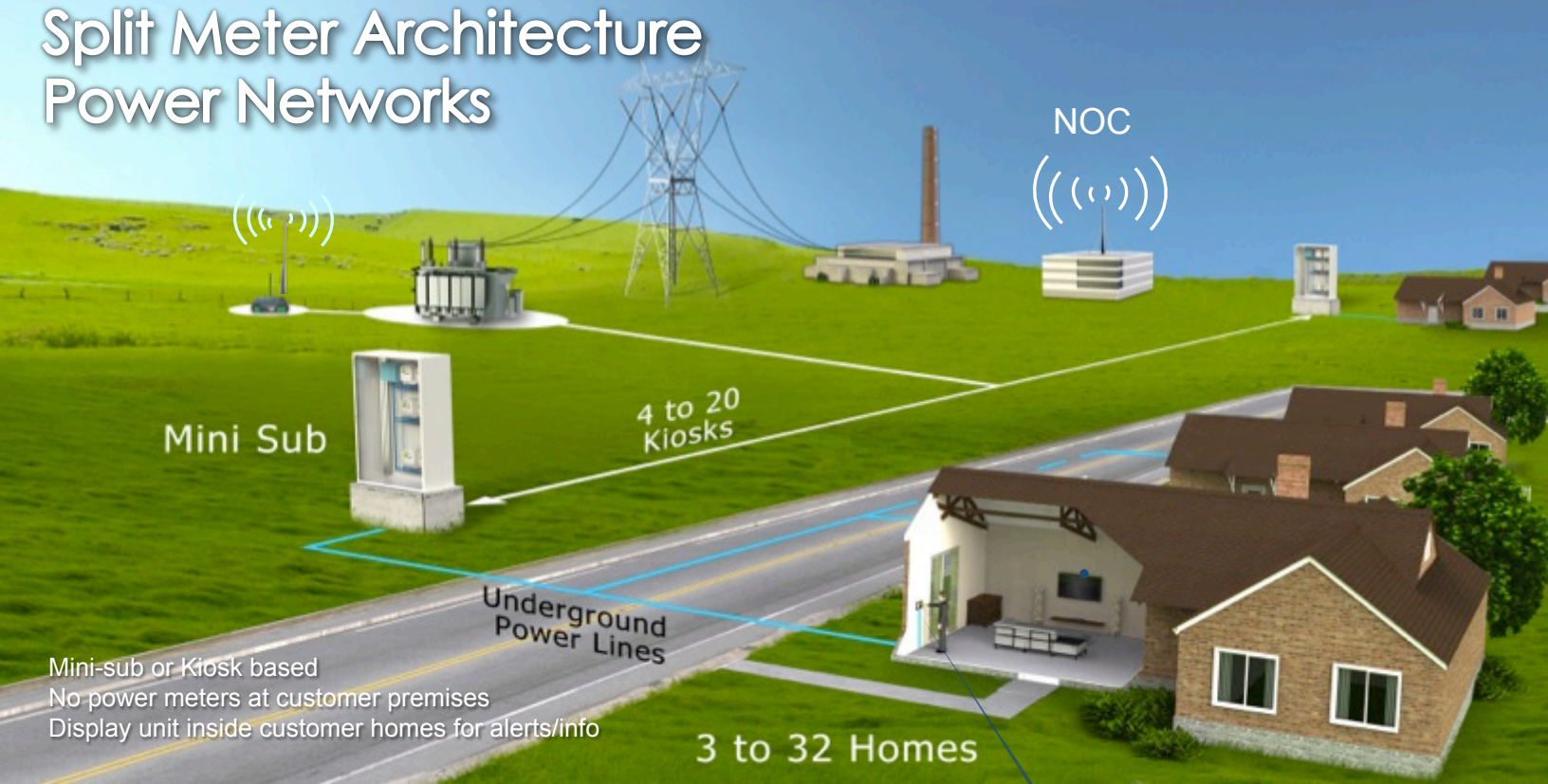
Standards and Implementations Supported:

- **4GPLC™** (EnVerv High Performance Mode)
- G3-PLC
- PRIME
- S-FSK (IEC 61334)

EV8100 Specifications

- Integrated Physical Layer (PHY), Media Access Controller (MAC) and Analog Front End (AFE)
- Integrated u-controller with 672KB SRAM & 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
- SPI interface for LCD and Capacitive Touch keypad interface
- OTW (Over The Wire) field upgrades
- Industrial temperature operating range (-40°C to +85°C)

Split Meter Architecture Power Networks



Home Display Unit

- Complete power information center
- Alerts for over-usage and possible power blackouts
- Informative messages on power saving
- Bill payments

