Plug-In N-PLC Module

Designed for Industrial Control and Automation Systems

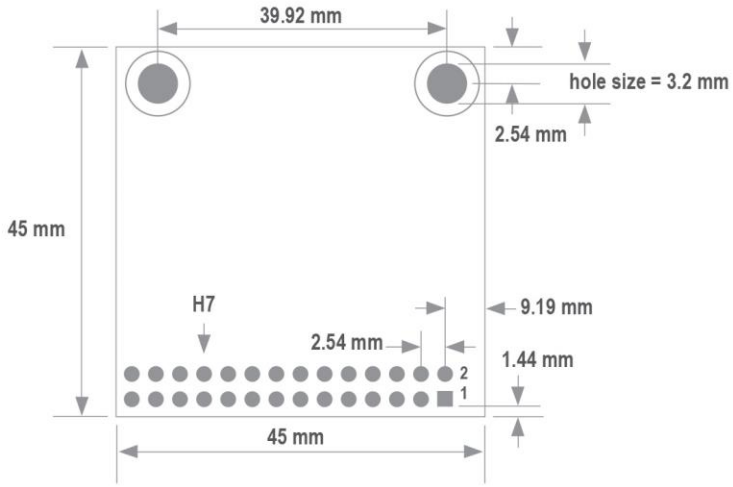
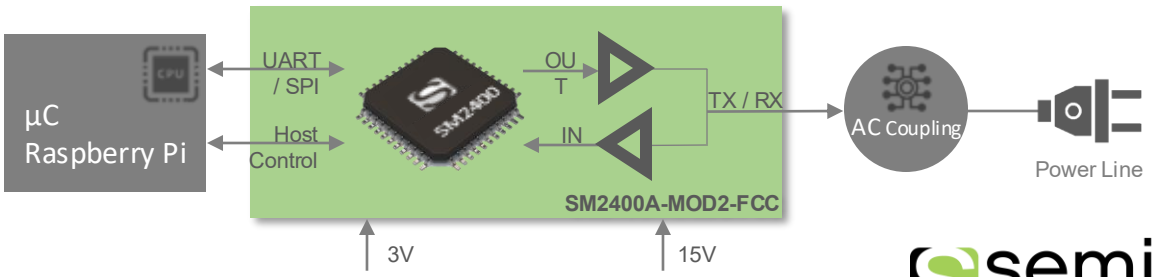
SM2400A-MOD2-FCC is a Narrowband Power-Line Communication (N-PLC) module designed to extend reliable communication over AC/DC power lines. Powered by the versatile **SM2400A** modem SoC, this module supports standard-based communication protocols, such as G3-PLC, and proprietary modes, such as XXR and SpeedLink that balance high data rates with reliability in extremely noisy environments and over long distances. The **SM2400A** offers transparent UART-to-PLC mode for rapid system integration, full mesh networking, encryption and a Serial Protocol API.

Accelerate system development and minimize design risk with production-ready plug-in module.

Features

- Communication over 275VAC / 560VDC power lines
- Operating voltage range: 8VDC ~ 24VDC
- Operates over FCC band: 155 kHz - 490 kHz
- Supports multiple N-PLC schemes:
  - G3-PLC FCC
  - SpeedLink – Up to 1000 Kbps point-2-point
  - XXR – Extremely noise immune mode
- Supported APIs:
  - Transparent UART to PLC passthrough mode (ASCII and binary)
  - Fully featured Serial Command API
- UART / SPI host interface
- Low power consumption
- 3.3V (5V tolerant) I/O
- Dimensions: 45mm x 45mm

Evaluation Kit available



System Block Diagram