POWER LINE COMMUNICATIONS | N-PLC TRANSCEIVER

Drilling, Mining, Maritime

Fast and Reliable Point-to-Point Communications

Communication with submerged or underground sensors poses unique challenges. The **SM2400A** is an advanced modem System-on-Chip (SoC) offering a reliable Power Line Communication (PLC) solution tailored for drilling, mining, and maritime applications. It enables point-to-point communication over long distances with high data rates and low latency.

Available in both Semitech's Chip or Module solutions in Extended Temperature Range (-40°C to 105°C)

Features

- High data rates over long distances (up to 1000 kbps point-to-point)
- Data rate boost via in-line data compression
- Configurable sub 500kHz operational band
- Extremely noise agile communication mode
- Secure communication – AES-128 encryption
- Optional mesh networking support

Applications

- Subterranean and underwater sensors
- Battery chargers
- Medium voltage

SM2400A-MOD2 PLC Module

- Production-ready turnkey solution
- PLC over AC (275V) or DC (400V) lines
- Operating voltage range: 8VDC ~ 24VDC
- Operates over FCC band (155-490 kHz)
- UART interface
- Size: 45mm x 45mm x 15mm
- *Customization options available*

SM2400A Chip Capabilities

- Multi-mode protocol support
- Transparent UART to PLC passthrough mode
- Fully featured Serial Command API
- Optional IPv6 support for scalability and large payload size
- AES-128/256 bit encryption engine
- 64-pin (7mm x 7mm)

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