

Time-saving embedded tools

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# N-PLC Click Bundle - AC plug EU



#### PID: MIKROE-5677

**N-PLC Click** is a compact add-on board that uses existing electrical power lines to transmit data signals. This board features the <u>SM2400</u>, an advanced multi-standard Narrow-band Power Line Communication (N-PLC) modem from <u>Semitech</u>. The SM2400 features a dual-core architecture, a DSP core for N-PLC modulations, and a 32-bit core for running protocols for superior communication performance and flexibility for various open standards and customized implementations. It includes firmware options for IEEE 1901.2 compliant PHY and MAC layers, a 6LoWPAN data link layer, and special modes for industrial IoT applications. In addition to the ability to accept signals from another PLC modem or the power line communication AC coupling circuit, this board also has a handful of other features, such as a selectable interface and power supply, firmware update capabilities, LED indicators, and many others. This Click board<sup>™</sup> is suitable for various applications such as smart grid systems, home automation, and industrial automation.

N-PLC Click is supported by a <u>mikroSDK</u> compliant library, which includes functions that simplify software development. This <u>Click board</u><sup>m</sup> comes as a fully tested product, ready to be used on a system equipped with the <u>mikroBUS</u><sup>m</sup> socket.

Mikroe produces entire development toolchains for all major microcontroller architectures.

Committed to excellency, we are dedicated to helping engineers bring the project development up to speed and achieve outstanding results.



ISO 27001: 2013 certification of informational security management system. ISO 14001: 2015 certification of environmental management system. OHSA5 18001: 2008 certification of occupational health and safety management system.



ISO 9001: 2015 certification of quality management system (QMS).



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## Specifications

Туре	PLC
Applications	Can be used for various applications such as smart grid systems, home automation, and industrial automation
On-board modules	SM2400 - multi-standard Narrow-band Power Line Communication (N-PLC) modem from Semitech
Key Features	Dual core architecture with custom N-PLC optimized DSP and Data Link Layer 32-bit controller, high performing custom DSP engine with embedded turnkey firmware, programmable 32-bit RISC protocol engine, selectable interface, status LED indicators, selectable board power supply, and more
Interface	SPI,UART
ClickID	No
Compatibility	mikroBUS
Click board size	L (57.15 x 25.4 mm)
Input Voltage	3.3V,5V

### Resources

<u>mikroBUS</u>™

<u>mikroSDK</u>

Click board<sup>™</sup> Catalog

Click boards<sup>™</sup>

#### Downloads

SM2400 datasheet

LM5158 datasheet

N-PLC click 2D and 3D files

N-PLC click schematic

N-PLC click example on Libstock

N-PLC Click Board User Guide

N-PLC Click firmware configs

#### **N-PLC Click GUI application**

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