

ADATIS



2WIRE MODULE RMII

Description

The 2WIRE-Module is a communication module for transmitting and receiving data over any pair of wires, including power line, bell wire or coax cables.

It holds all functions necessary for the easy creation of an Nessum Wire (IEEE1901) compatible network device. Nessum-Wire (formerly known as HD-PLC) is based on wavelet OFDM (Orthogonal Frequency Division Multiplexing), which allows for efficient use of the available bandwidth, low power consumption, excellent noise rejection capabilities and will pass EMC regulations.

The 2WIRE-Module integrated AES-128 bit encryption, but will also allow for Plug & Play operation without configuration.

On the LAN-side an RMII interface is provided to act as a PHY on a MAC or vice versa.

The module has been designed utmost flexibility and ease of integration.

Features

- Up to 1000 m distance for single-hop, up to 10km for multi-hop
- Up to 128 communication nodes for single hop, Up to 2024 nodes for multi-hop
- Nessum Wire encryption with 128-bit AES
- Node pairing for enhanced security
- RMII Ethernet interface
- UART, SPI, I2C and GPIO interfaces
- Status LEDs outputs for Ethernet and 2WIRE
- Ultra-low power design, max. 1.3W
- 12V or 3,3V power supply
- 3.3V output with up to 0.5A for 12V power option
- Physical dimension: 23.0 x 28.0 x 4.4mm
- Solders directly to a motherboard
- Shielded housing for electrical and mechanical robustness
- Industrial temperature range: -40° to +85°C

Applications

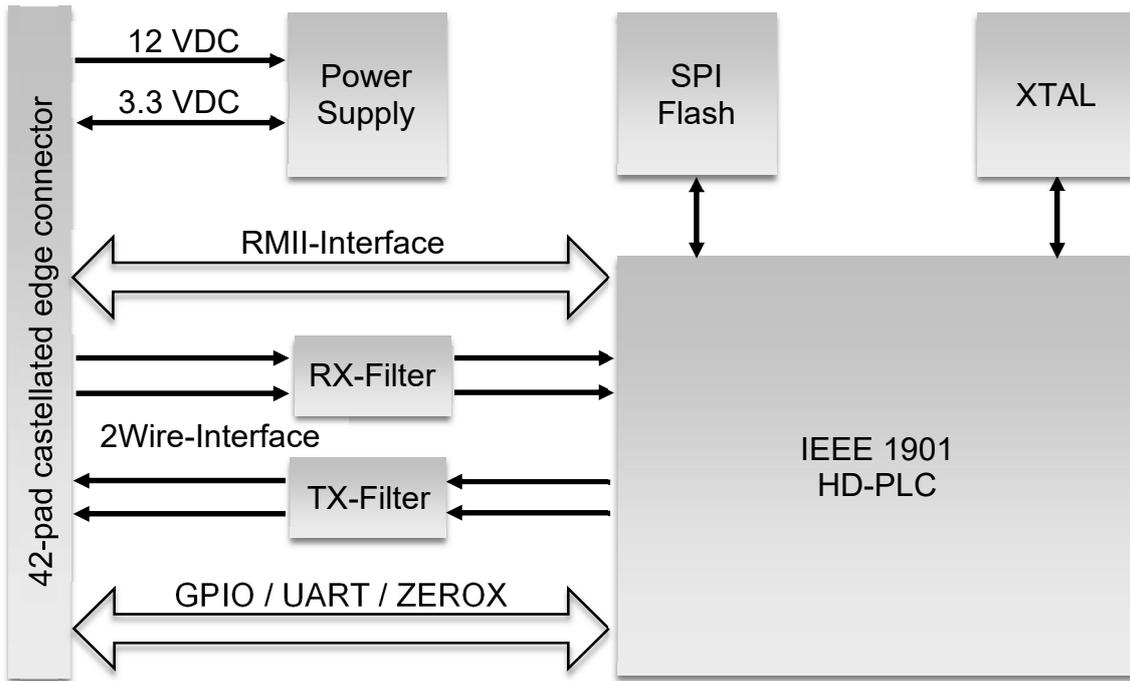
- Ethernet extension via any wire
- Polarity agnostic 2-wire installation
- Retrofitting using existing wiring
- Security Cameras, AV-Intercoms
- Home Automation

Nessum Wire integration into existing products

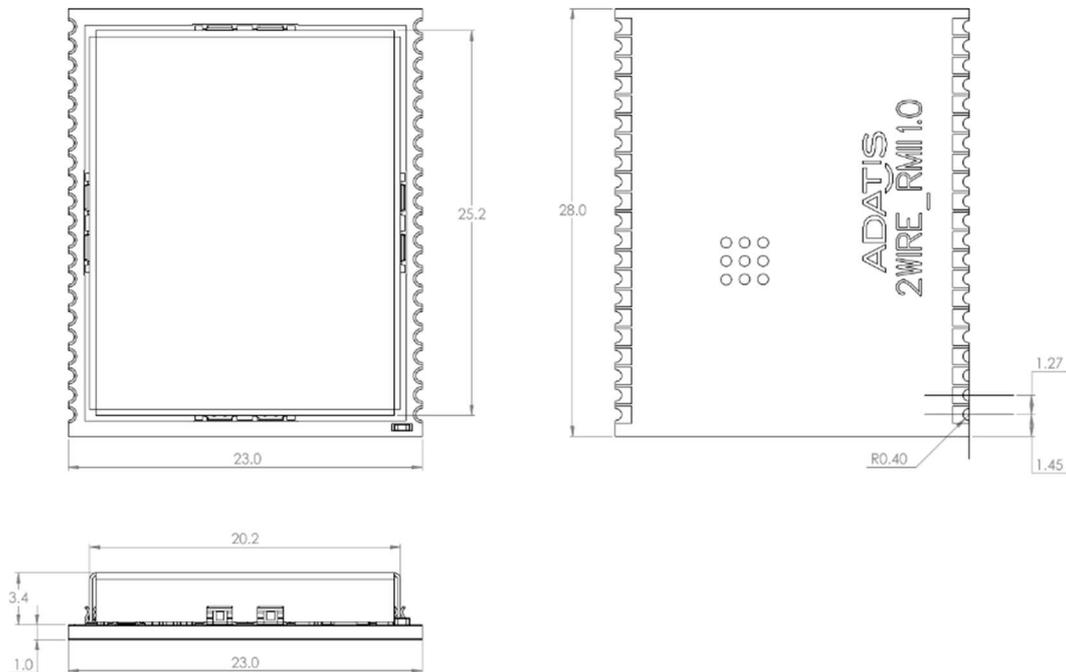
via any pair of (voltage-free) wires

Specifications

Module Block Diagram



Dimensions



Ordering

PRODUCT TYPE	ORDER CODE
2Wire Module RMII	2WRMII

ADATIS

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