

## Overview

WQ3001 integrates two high-performance 32-bit CPUs and operates in 0.1~30 MHz frequency bands. As a power line broadband carrier gateway chip, WQ3001 manages a large number of terminal nodes, makes signal transmission over power lines in higher stability and coverage owing to its premium transceiver performance, as well as provides a large storage space and various peripheral interfaces.

## Functions

- Adopts dual-core 32-bit RISC-V CPU in high performance (up to 480 MIPS).
- Complies with HPLC standards of both State Grid Corporation of China and China Southern Power Grid.
- Supports customized designs such as 352 KB RAM, 92 KB ROM, and a maximum of 16 MB FLASH.
- Integrates the Ethernet interface, four UARTs, three SPIs, four PWMs, two I2Cs, six ADCs, and more than 40 GPIOs.
- Supports high-performance PLC with the receiver sensitivity of -95dBm, link budget of 120dB, and excellent coverage.
- Supports multiple security encryption engines.

## Applications



Smart meter



Power management system



Solar energy



Charging pole

## Block Diagram

