

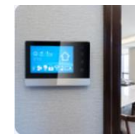
Overview

WQ3031 integrates high-performance LineDriver and heterogeneous triple-core processing architecture RISC-V, complies with not only international standards IEEE1901.1 but also the communication protocols of the State Grid Corporation of China and the China Southern Power Grid. The chip operates in frequency bands in the range of 0.1~30 MHz, and supports data transmission on existing power lines, with the features of high transmission rate, good anti-interference performance and fast networking. With a large storage space, WQ3031 is equipped with the ePWM module specific to dimmer lighting control.

Functions

- Adopts triple-core 32-bit RISC-V CPU in high performance (up to 720 MIPS).
- Built-in AFEs (LineDriver, LNA, and BandpassFilter).
- Provides six high-speed ADCs in high precision.
- Supports IEEE1901.1 to ensure overseas businesses without intellectual property barriers.
- Supports customized designs such as 256 KB ROM, 640 KB RAM, and 2/4 MB Flash.
- Supports ePWM designed for advanced lighting and color adjustment.
- Supports multiple security encryption engines.

Applications



All-in-one smart home Lighting management



Centralized electricity meter reading

Power management system

Block Diagram

