PL7211
2ch Power/Energy Metering AFE Controller

OVERVIEW

PL7211 is a highly integrated power monitoring IC that measures electricity-related data for power usage measurement applications. It has built-in 2-channel ADC and a programmable DSP which can adapt to different applications such as metering, power protection and Master/Slave.
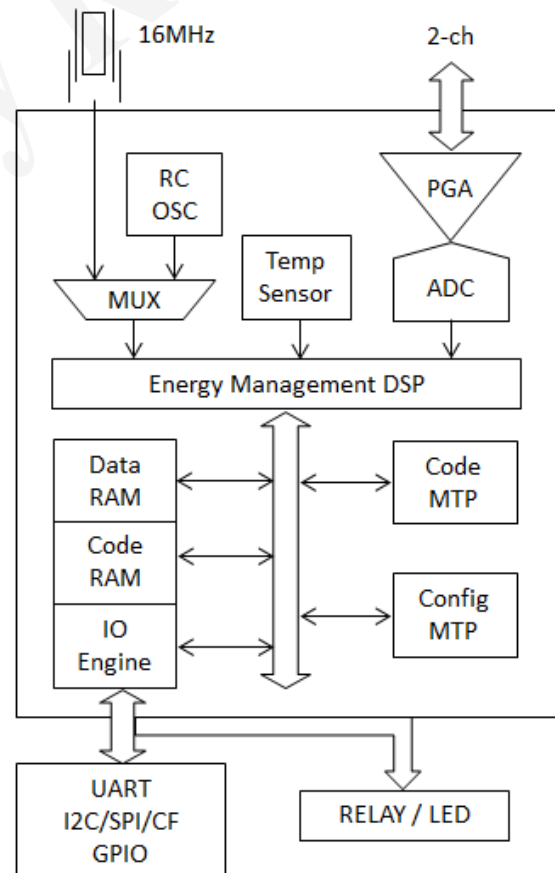
PL7211 has a built-in MTP that stores the chip configuration, DSP code and calibration data. It provides SPI/I2C/UART interface and can be used for calibration and programming data or DSP code. MCU can be accessed through SPI/I2C/UART interface.

PL7211 can diagnose the electricity-related data to identify overloading, short circuit, leakage current and arcing condition for further power protection features. It also provides a flexible architecure, low system BOM cost and programmable solution, to help manufacturers minimize development efforts and design a versatile and flexible product.

FEATURES

- ADC Input
  - 2-ch 24bit $\Sigma\Delta$ ADC
  - 2-ch differential input with PGA (1X~32X)
  - For voltage or current signal input
- Programmable DSP function
  - Individual program and data space
  - Configurable DSP parameters
  - Built-in IEEE 754 floating point format conversion
- SPI/I2C/UART interface for
  - MCU mode interface
  - Calibration and MTP programming usage
- UART auto baud rate detection
- MTP memory for
  - Chip configuration
  - Calibration data
  - DSP configuration data
- 5V/3.3V to 1.8V internal LDO
- 5V tolerance GPIO
- Supports 16MHz external crystal or internal oscillator
- Built-in Watch-dog timer
- Package Type : QFN24

BLOCK DIAGRAM

Prolific Technology Inc.