

# PL7223

## 2ch Power/Energy Metering AFE Controller

### OVERVIEW

PL7223 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.

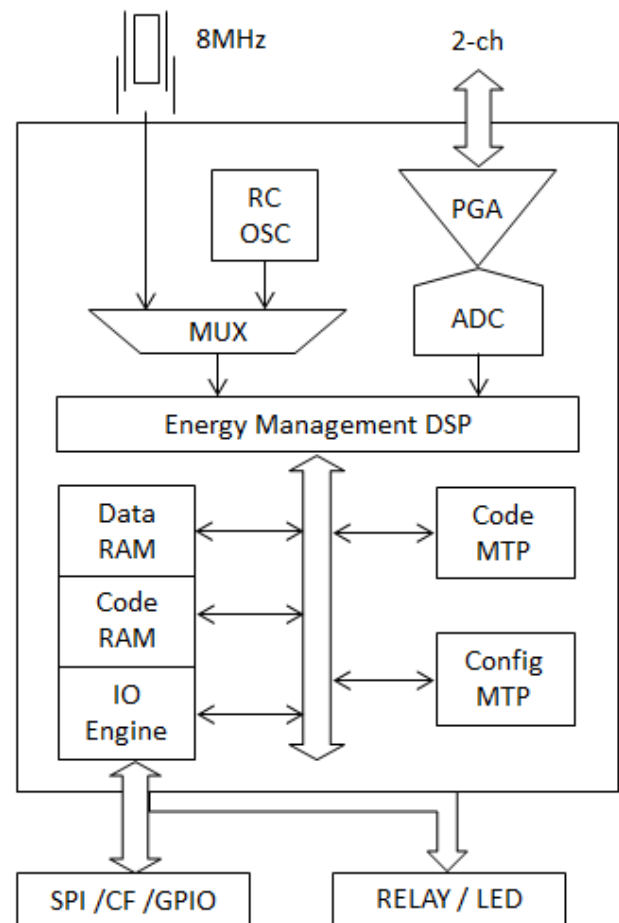
PL7223 has a built-in MTP that stores the chip configuration, DSP code and calibration data. It provides SPI interface and can be used for calibration and programming data or DSP code. MCU can be accessed through SPI interface.

PL7223 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 architecture, 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 full differential ADC input
  - 16bit  $\Sigma\Delta$  ADC
  - 1X ~ 32X PGA (Programmable Gain Amp)
  - For voltage or current signal input
- Programmable DSP function
  - Individual program and data space
  - Configurable DSP parameters
- SPI interface for
  - MCU mode interface
  - Calibration and MTP programming usage
- MTP memory for
  - DSP code
  - Calibration data
- 3.3V to 1.8V internal LDO
- GPIO
  - Support 4 GPIOs
  - Function programmable by DSP
  - 3 GPIOs sink current up to 16mA for LED driving
- Supports 8MHz external crystal or internal oscillator
- Package Type : QFN24 / SSOP24

### BLOCK DIAGRAM



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