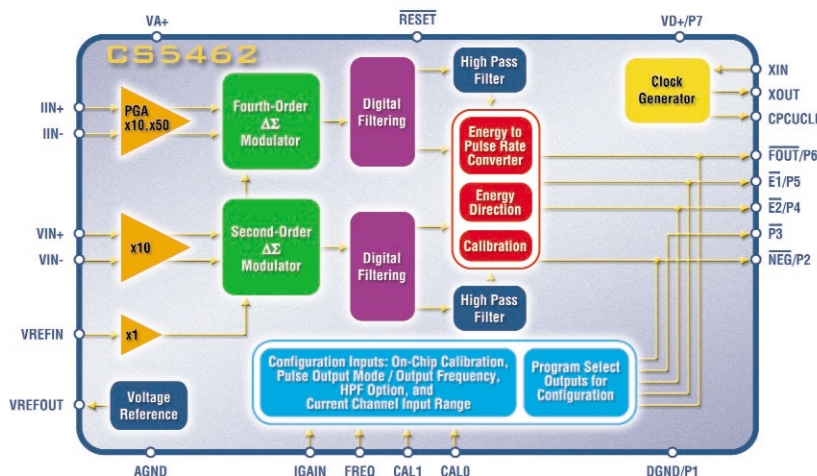


## New Low-Cost IC Ideal for Residential Electronic Power Meters Delivers Accurate Power-Usage Measurements

### CS5462 Features

- Energy data linearity:  $\pm 0.1\%$  of reading over 1000:1 dynamic range
- On-chip functions: measures energy and performs energy-to-pulse conversions
- On-chip system calibration option
- Meets accuracy spec for IEC-687/1036
- Power consumption < 12 mW
- High pass filter option for both I and V
- Adjustable input range on current channel
- On-chip 2.5 V reference (typ 25 ppm/°C)
- Configurable pulse outputs for stepper motor or mechanical counter
- On-chip energy direction indicator
- Ground reference input signals with single supply
- High frequency output for calibration
- On-chip power-on reset
- Power supply configurations:  $VA+ = +5\text{ V}$ ;  $AGND = 0\text{ V}$ ;  $VD+ = +3.3\text{ V to }5\text{ V}$
- Package: 24-pin SSOP
- CS5462 Price: \$1.24 (100K)



The CS5462 enables digital power-meter manufacturers to provide highly accurate, cost-effective solutions for measuring power usage. This new IC is an integrated power-measurement device that combines two  $\Delta\Sigma$  A/D converters and a frequency pulse output on a single chip. Designed for residential single-phase power-meter applications, the device accurately measures energy and performs energy-to-pulse conversions.

The device's low-frequency energy outputs,  $\bar{E}1$  and  $\bar{E}2$ , supply average real power and can be used to drive a stepper motor or a mechanical counter, while the high frequency energy output  $\bar{F}OUT$  can be used for calibration. The CS5462 allows for direct configuration of pulse-output format, pulse-output frequency, current channel input range, high-pass filter option, and on-chip calibration.

The CS5462 offers excellent temperature stability for long-life operation. The device reduces total BOM cost with the inclusion of a patented calibration technique that eliminates the need for external potentiometers, off-chip memory or resistor arrays. The CS5462 delivers accurate power-usage measurements and is an ideal low-cost solution for residential electronic power-meter applications.