

Dual-phase energy metering evaluation board with 2 current transformers based on the STPM34



EVALSTPM34 board

Features

- 0.2% accuracy dual or split-phase meter
- $V_{\text{nom(RMS)}}$ = 140 to 300 V, $I_{\text{nom}}/I_{\text{max(RMS)}}$ = 5/100 A, f_{lin} = 50/60 Hz ± 10%
- Connector for USB isolated hardware programmer tool STEVAL-IPE023V1 and PC GUI
- USB-to-UART isolated connector to PC GUI using virtual COM port
- SPI/UART switch for device peripheral selection
- 2 programmable LEDs on board
- Digital expansion to external system-on-chip or MCU
- 3.3 V power supply: external or through STEVAL-IPE023V1 isolated USB board
- · IEC61000 standard compliant
- · RoHS compliant

Product status link EVALSTPM34



Application

- · Energy metering solutions
- · Smart metering systems

Description

The EVALSTPM34 evaluation board is a class 0.2, dual-phase meter with 2 CTs for power line systems with V_{nom} = 140 to 300 $V_{(RMS)}$, I_{nom} / I_{max} = 5/100 $A_{(RMS)}$, f_{lin} = 50/60 Hz ± 10% and T_{amb} = -40 to +85 °C.

Measured active/reactive power can be output from two programmable LEDs on the board.

The board can be interfaced with a PC running evaluation software through an isolated USB-to-UART port, or through the STEVAL-IPE023V1 USB (SPI) isolated interface tool for configuration and data reading.

The board also has SPI/UART pins available to interface a microcontroller for application development.



Revision history

Table 1. Document revision history

Date	Version	Changes
31-Mar-2014	1	Initial release
28-Apr-2022	2	Added Section Application.

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