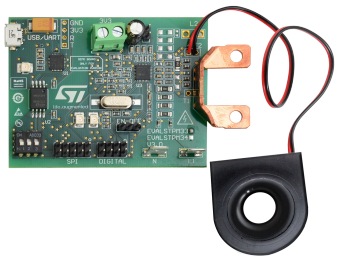
EVALSTPM33

Data brief

Single-phase energy metering evaluation board with tamper monitoring, CT and shunt current sensor based on the STPM33



Product status link
EVALSTPM33

Features

- 0.2% accuracy single-phase meter with tamper monitoring
- $V_{nom(RMS)}$=140 to 300 V, $I_{nom}/I^{max(RMS)}$=5/100 A, f_{lin} =50/60 Hz ± 10%
- Tamper detection through neutral current monitoring
- 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

Application

- Energy metering solutions
- Smart metering systems

Description

The EVALSTPM33 energy metering evaluation board is a class 0.2, single-phase meter which includes tamper monitoring, CT and shunt current sensors 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 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.
08-Aug-2023	2	Changed figure 1 in Section Cover image; added Section Application; some minor changes.

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