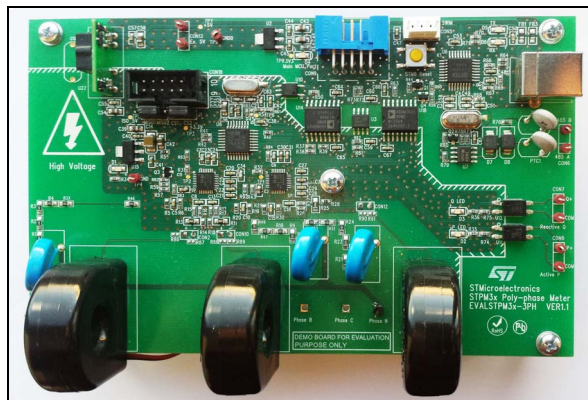


Poly-phase energy metering evaluation board with current transformers based on the STPM33, STPM34 and STM8S903

Data brief



Features

- 0.2% accuracy poly-phase meter evaluation board
- $V_{\text{nom(RMS)}} = 140 \text{ to } 300 \text{ V}$,
 $I_{\text{nom}} / I_{\text{max(RMS)}} = 5/100 \text{ A}$, $f_{\text{lin}} = 50/60 \text{ Hz} \pm 10\%$
- USB isolated connector to PC GUI
- Power supply 3.3 V through USB connector
- SPI/UART connector for STPM33/34 direct access
- SWIM connector for firmware upgrade
- SPI/UART connector for expansion to external MCU
- 2x LEDs on board for active-reactive power
- IEC61000 standard compliant
- RoHS compliant

Description

The STPM33, STPM34 poly-phase evaluation board is a Class 0.2, single-phase or poly-phase meter with current transformer sensors for power line systems of $V_{\text{nom}} = 140 \text{ to } 300 \text{ V}_{\text{RMS}}$, $I_{\text{nom}} / I_{\text{max}} = 5/100 \text{ A}_{\text{RMS}}$, $f_{\text{lin}} = 50/60 \text{ Hz} \pm 10\%$ and $T_{\text{amb}} = -40 \text{ to } +85 \text{ }^{\circ}\text{C}$.

Measured data from the STPM33 and STPM34 are read by the STM8S903 device for 3-phase energy and power calculations and the active/reactive cumulative LED signals generation.

To display all measurements, the board can be interfaced with PC running evaluation software through an isolated USB port, which provides also the 3.3 V power supply.

The board has also SPI/UART pins available to be interfaced to an external microcontroller for further application development.

Revision history

Table 1. Document revision history

Date	Revision	Changes
03-Nov-2014	1	Initial release.

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