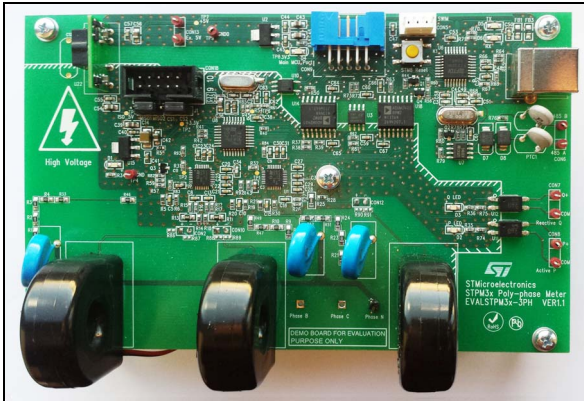


Poly-phase energy metering evaluation board with current transformers based on the STPM33, STPM34 and STM8S903

Data brief



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 $V_{nom} = 140$ to $300 V_{RMS}$, $I_{nom} / I_{max} = 5/100 A_{RMS}$, $f_{lin} = 50/60 Hz \pm 10\%$ and $T_{amb} = -40$ to $+85 ^\circ C$.

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.

Features

- 0.2% accuracy poly-phase meter evaluation board
- $V_{nom(RMS)} = 140$ to $300 V$,
 $I_{nom} / I_{max(RMS)} = 5/100 A$, $f_{lin} = 50/60 Hz \pm 10\%$
- 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

Revision history

Table 1. Document revision history

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

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