



STEVAL-IPE015V1

Single-phase energy metering demonstration board with two current transformers based on the STPM10

Data brief

Features

- Single-phase, class 0.5 accuracy
- $V_{nom}(RMS) = 140$ to 300 V, $I_{nom}/I_{max}(RMS) = 2/20$ A, $f_{lin} = 45$ to 65 Hz
- Tamper detection for power line systems
- Capacitive power supply
- SPI interface connector
- RoHS compliant

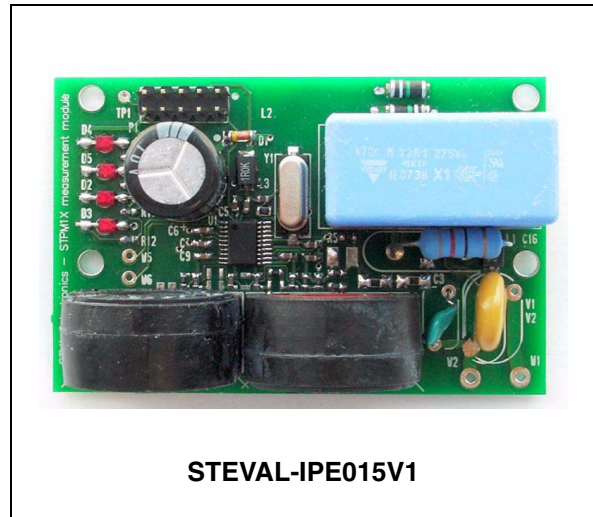
Description

The STEVAL-IPE015V1 demonstration board is a class 0.5, single-phase microprocessor-based meter with tamper detection for power line systems of $V_{nom} = 140$ to 300 V_{RMS}, $I_{nom} / I_{max} = 2/20$ A_{RMS}, $f_{lin} = 45$ to 65 Hz and $T_{amb} = -40$ to $+85$ °C.

A stepper motor display shows the values of the energy measured by the standalone meter.

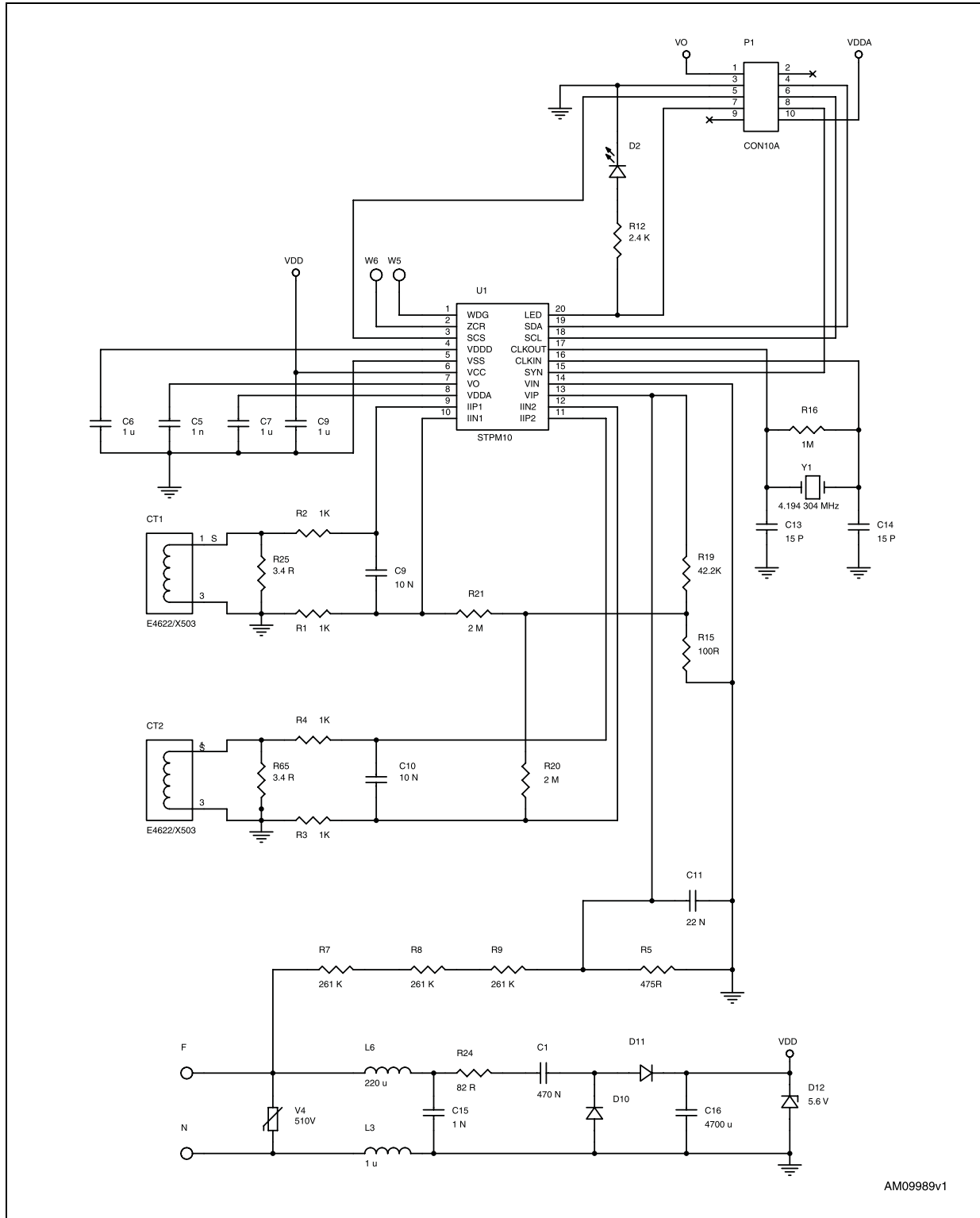
The tamper detection feature implements two current transformers which monitor the live and neutral wire currents.

The STEVAL-IPE015V1 demonstration has a 10-pin connector to be interfaced to a microcontroller or to a PC through a parallel or serial programmer for reading data.



1 Schematic

Figure 1. Schematic circuit



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
22-Dec-2011	1	Initial release.

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