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# STEVAL-IPE016V1

Single-phase energy metering demonstration board with one current transformer and one shunt resistor based on the STPM10

Data brief

## Features

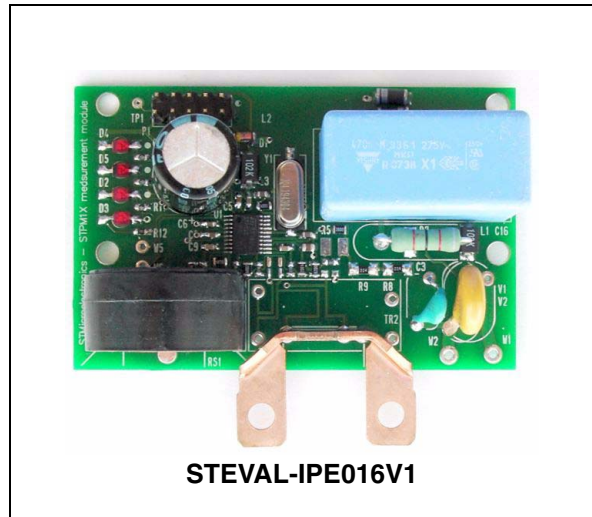
- Single-phase, class 0.5 accuracy
- $V_{nom}(RMS) = 140$  to  $300$  V,  $I_{nom} / I_{max}(RMS) = 2/20$  A,  $f_{lin} = 45$  to  $65$  Hz
- Tamper detection for power line systems
- Capacitive power supply
- SPI interface connector
- RoHS compliant

## Description

The STEVAL-IPE016V1 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<sub>RMS</sub>,  $I_{nom}/I_{max} = 2/20$  A<sub>RMS</sub>,  $f_{lin} = 45$  to  $65$  Hz and  $T_{amb} = -40$  to  $+85$  °C.

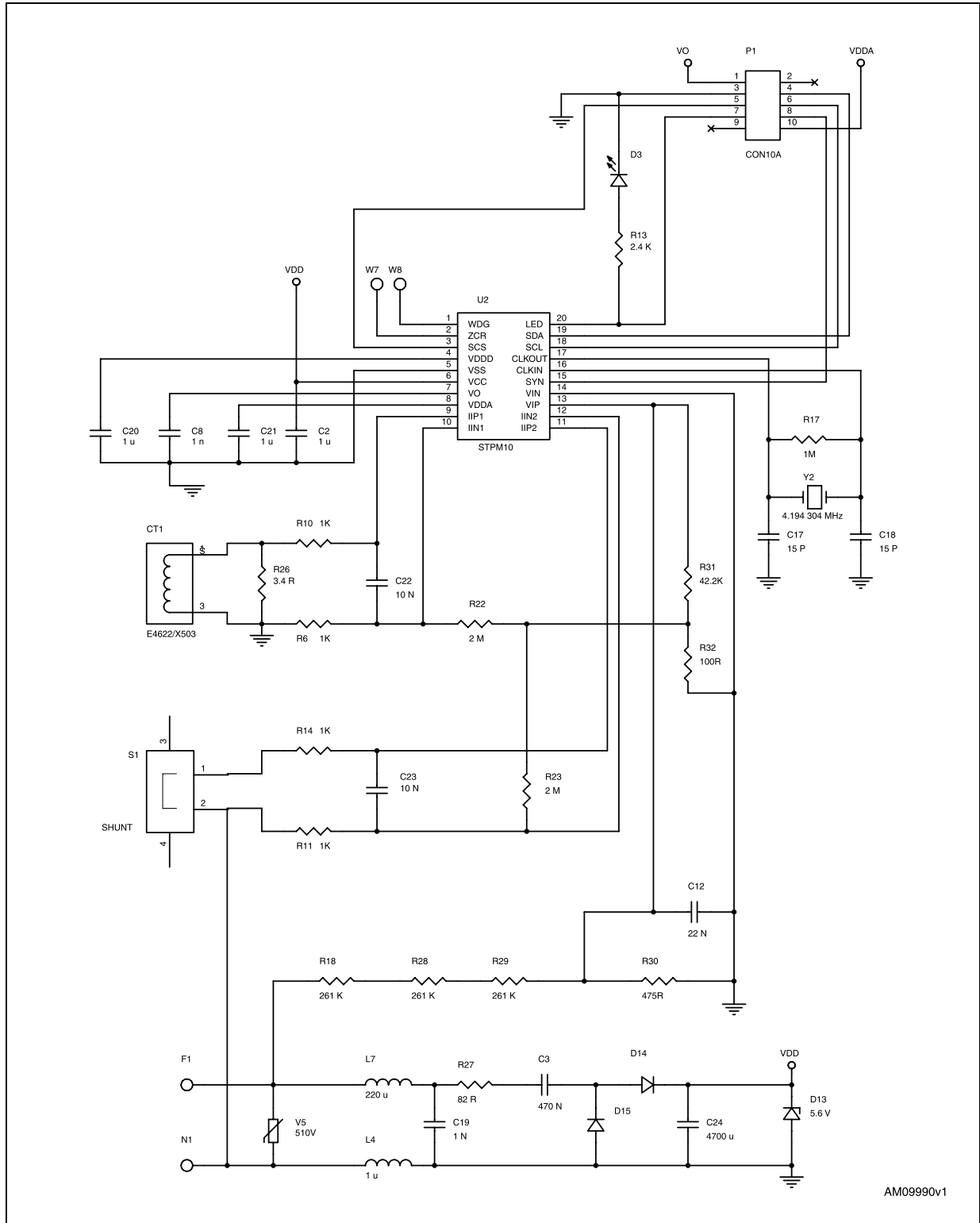
The tamper detection feature implements one current transformer and one shunt resistor to monitor the live and neutral wire currents.

The STEVAL-IPE016V1 demonstration board 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



AM09990v1

## 2 Revision history

**Table 1. Document revision history**

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

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