



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

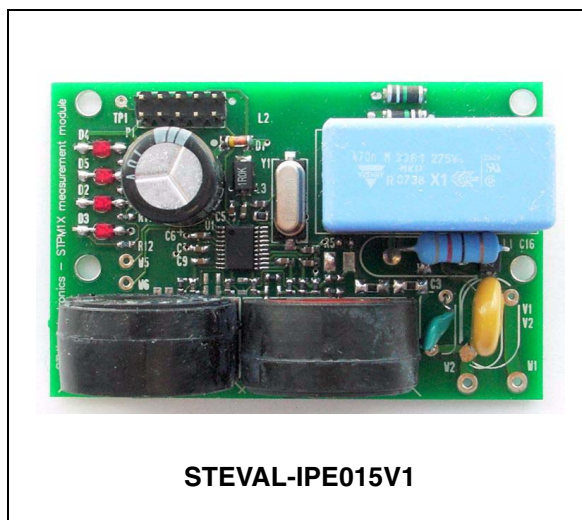
## Description

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

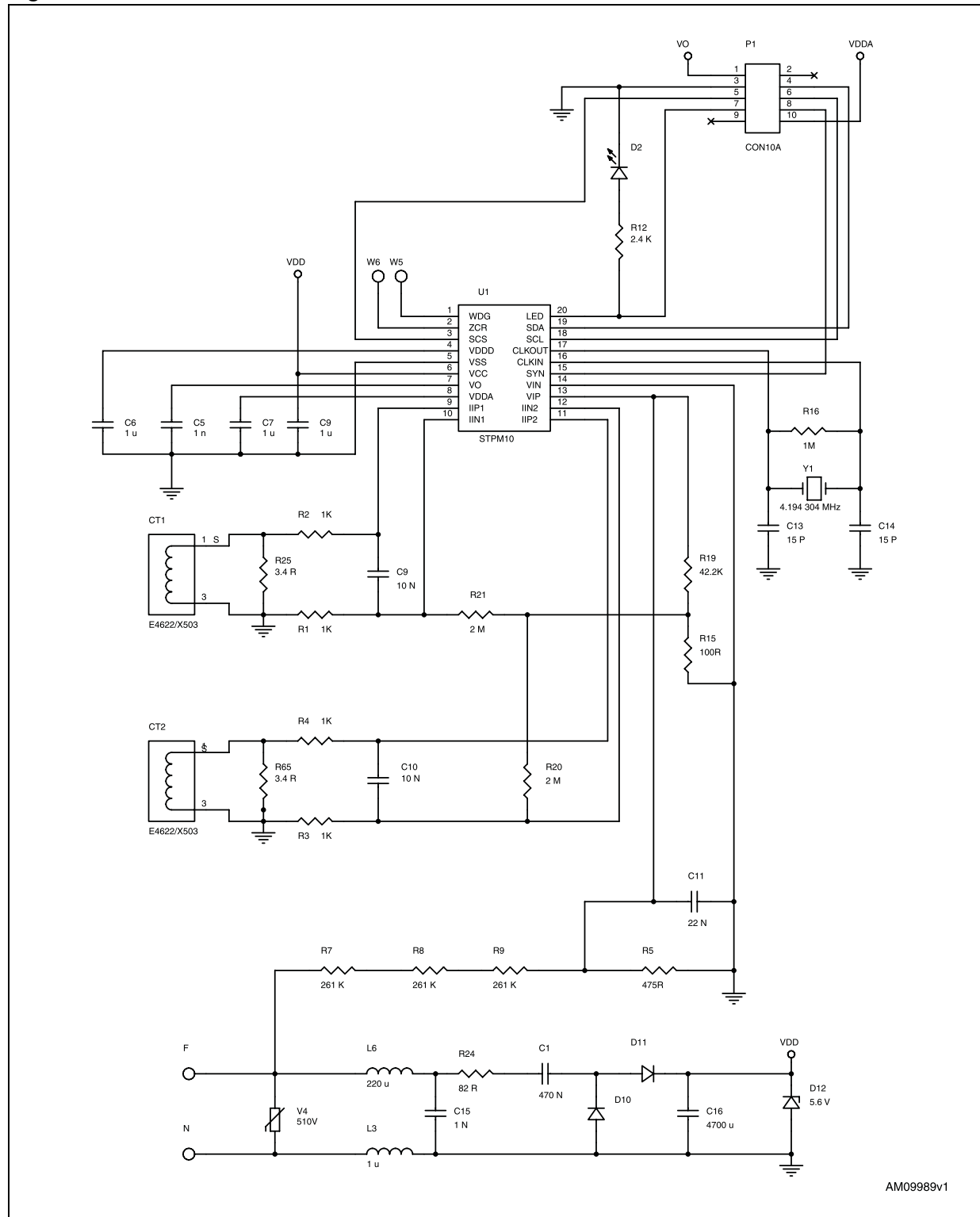
A stepper motor display shows the values of the energy measured by the standalone meter.

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.



**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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