



## STEVAL-IPE017V1

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

Data brief

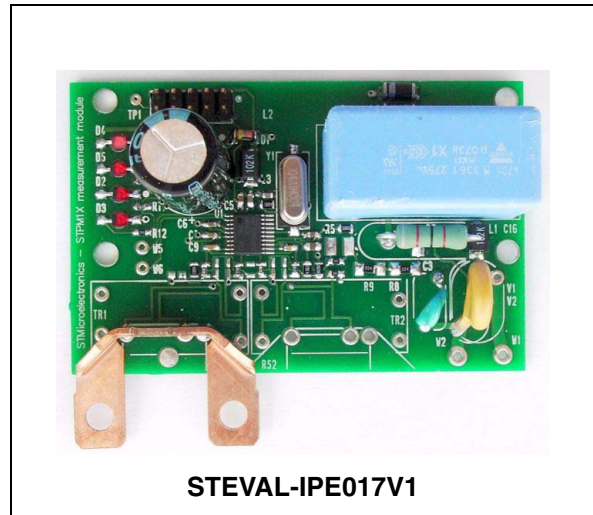
### Features

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

### Description

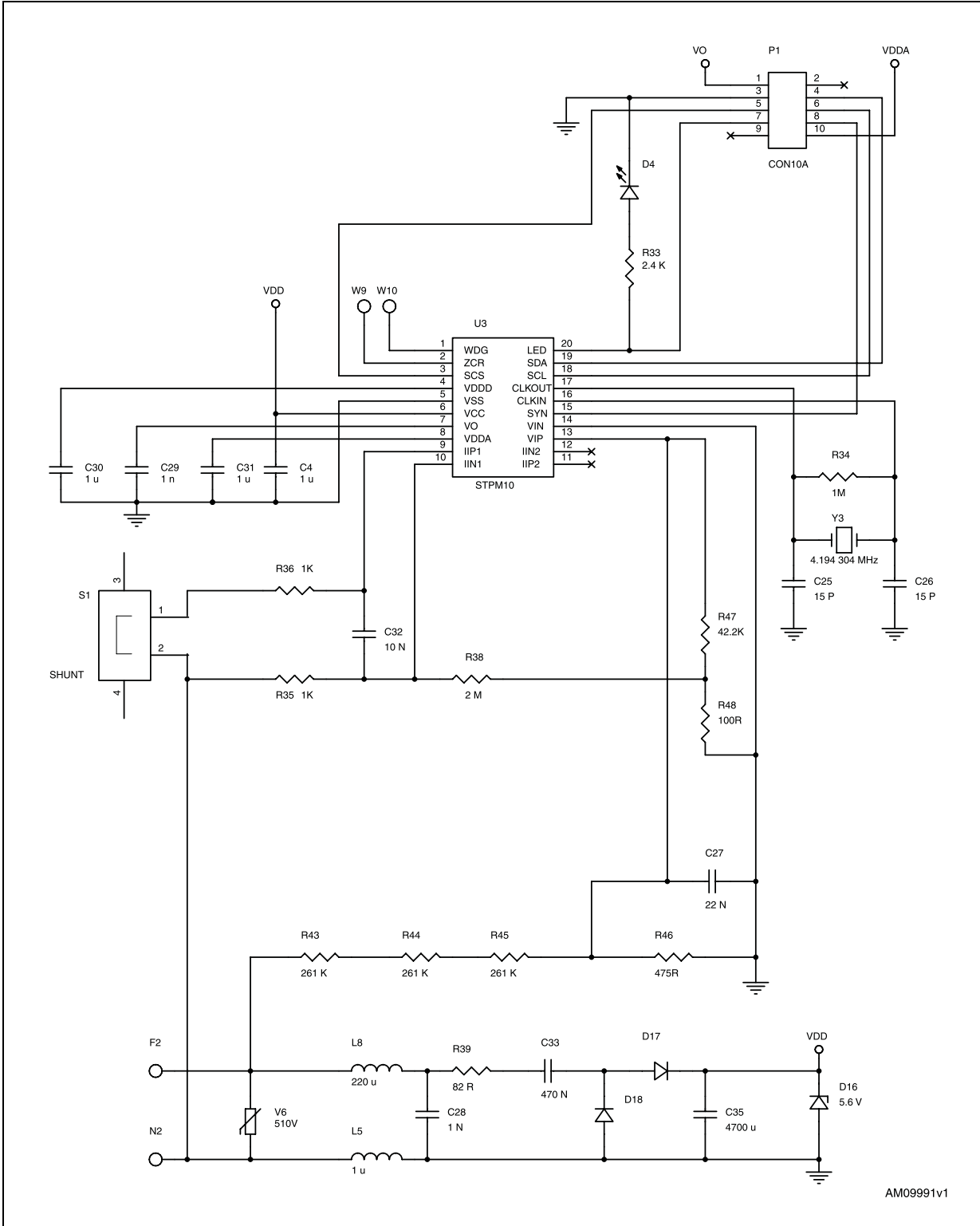
The STEVAL-IPE017V1 demonstration board is a class 0.5, single-phase microprocessor-based meter for power line systems of  $V_{\text{nom}} = 140 \text{ to } 300 \text{ V}_{\text{RMS}}$ ,  $I_{\text{nom}}/I_{\text{max}} = 2/20 \text{ A}_{\text{RMS}}$ ,  $f_{\text{lin}} = 45 \text{ to } 65 \text{ Hz}$  and  $T_{\text{amb}} = -40 \text{ to } +85 \text{ }^{\circ}\text{C}$ . One shunt resistor is used for current sensing.

The STEVAL-IPE017V1 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



## 2 Revision history

**Table 1. Document revision history**

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

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