



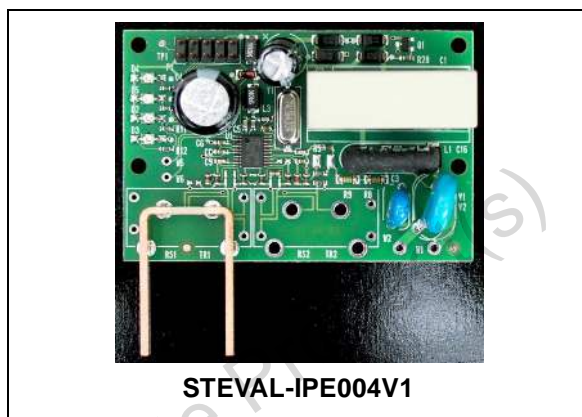
# STEVAL-IPE004V1

## Electricity Meter (mono phase) - Measurement Board 1 Shunt

Data Brief

### Features

- Single-phase, 0.5 class accuracy guaranteed
- $U_{NOM}(RMS) = 140$  to  $300V$ ,  
 $I_{NOM}/I_{MAX}(RMS) = 2/20A$ ,  $f_{LIN} = 45$  to  $65Hz$ ,  
 $T_{AMB} = -40$  to  $+85\text{ }^{\circ}C$
- LED checking for:
  - Functioning
  - No Load Condition
  - Reverse Energy Direction
- Stepper Motor Display Connector
- Capacitive Power Supply
- SPI Interface Connector:
  - Active, Reactive Apparent Power consumption
  - $V_{RMS}$ ,  $I_{RMS}$  and Line Frequency
  - Status



### Applications

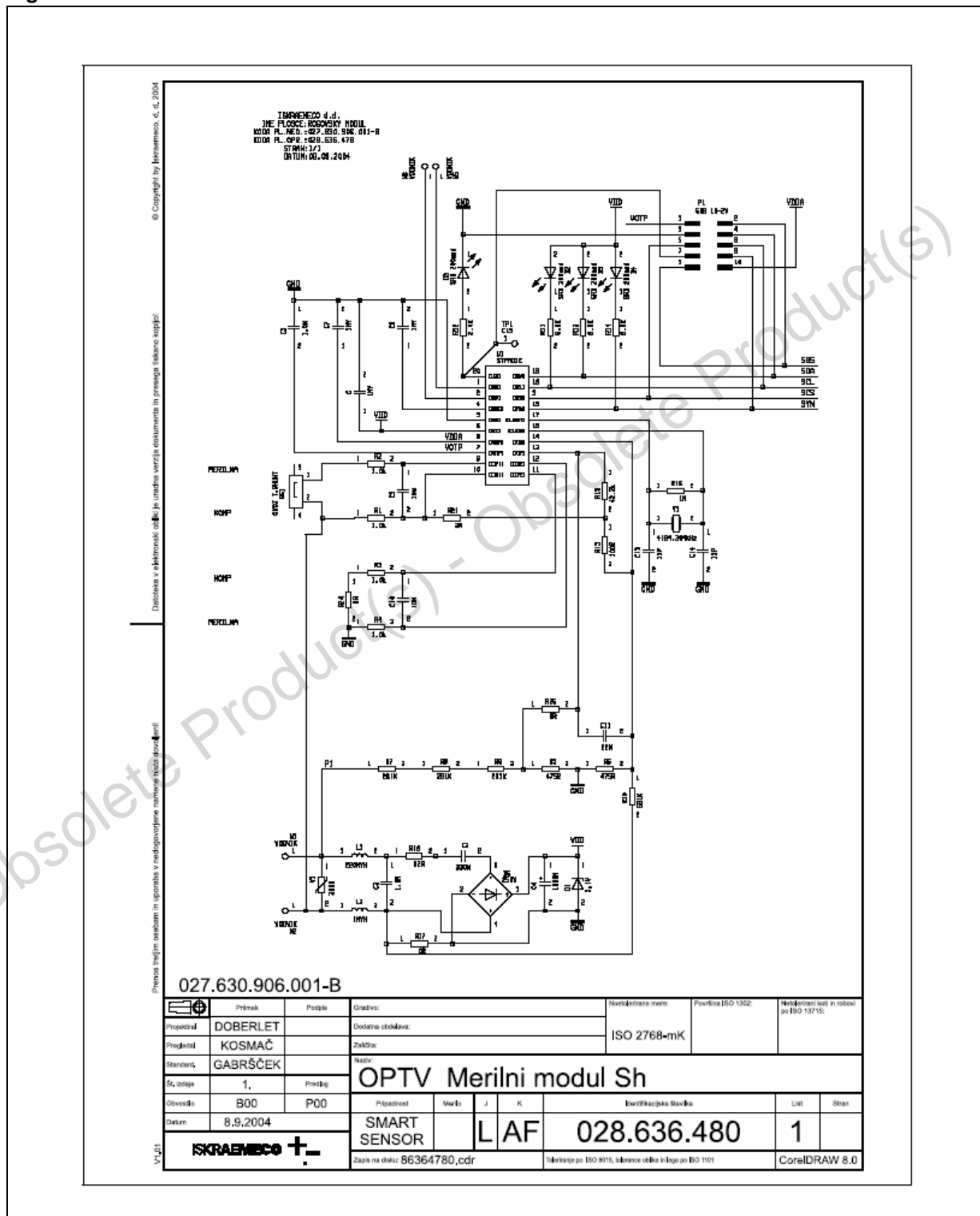
This metering module can be used to build a Class 0.5 Single-phase standalone or microprocessor based meter with or without Tamper detection for power line systems of  $U_{NOM} = 140$  to  $300V_{RMS}$ ,  $I_{NOM}/I_{MAX} = 2/20A_{RMS}$ ,  $f_{LIN} = 45$  to  $65Hz$  and  $T_{AMB} = -40$  to  $+85\text{ }^{\circ}C$ .

In standalone mode, a stepper motor display should be connected to pins W5 and W6. A user can select the type of stepper or the constant of output pulse frequency by changing LVS or KMOT configurators respectively.

In Microprocessor based mode, a control board with a microprocessor should be connected to the male connector P1 of the module using a 10-wire flat cable.

# 1 Board Schematic

Figure 1. Scheme



## 2 Revision history

Date	Revision	Changes
12-Jan-2006	1	Initial release.

Obsolete Product(s) - Obsolete Product(s)

Information furnished is believed to be accurate and reliable. However, STMicroelectronics assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of STMicroelectronics. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. STMicroelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of STMicroelectronics.

The ST logo is a registered trademark of STMicroelectronics.  
All other names are the property of their respective owners

© 2006 STMicroelectronics - All rights reserved

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan -  
Malaysia - Malta - Morocco - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

[www.st.com](http://www.st.com)