

EVALKITST75MM-1

ST75MM METERS AND MORE® compliant power line communication demonstration kit

Data brief



Features

- METERS AND MORE compliant power line communication (PLC) demonstration and development kit based on the ST75MM system-on-chip
- Suitable for PLC evaluation over AC mains network

- Flexible two-board architecture:
 - EVALST75MM-1: PLC board based on the ST75MM power line networking system-on-chip compliant to the METERS AND MORE standard
 - EVLALTAIR900-M1: wide-range input voltage, 7.5 W power supply board based on the ALTAIR04-900 quasiresonant current-mode SMPS controller
- STM32 on-board microcontroller to manage the ST75MM device and to facilitate development of a stand-alone PLC node
- USB and JTAG direct access to the STM32 host for programming and usage
- Suitable for CENELEC EN50065 compliant applications in the range of 95 - 148.5 kHz

Description

Built around the ST75MM power line networking system-on-chip in compliance with the METERS AND MORE standard, the EVALKITST75MM-1 embeds all the additional functions required for a turnkey power line communication node: the AC power supply based on the ALTAIR4-900 and the STM32 microcontroller to either control the system as a stand-alone application or to connect the EVALKITST75MM-1 to an external host.

The typical application environment consists of two or more EVALKITST75MM-1 devices connected to the same mains line, to evaluate the performance in a communication system. Block diagram EVALKITST75MM-1

l Block diagram

EVALKITST75MM-1 Power supply board LINE **EVLALTAIR900-M1** AC mains Power supply unit **NEUTRAL** connector 13 V 3.3 V 3.3 V USB, JTAG, GPIO STM32 AC line ST75MM Microcontroller coupling connectors EVALST75MM-1

Figure 1: EVALKITST75MM-1 functional block diagram

577

EVALKITST75MM-1 Revision history

Revision history

Table 1: Document revision history

Date	Revision	Changes
16-Oct-2017	1	Initial release.

IMPORTANT NOTICE - PLEASE READ CAREFULLY

STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2017 STMicroelectronics - All rights reserved

