

EVALKITST7590-Q1

STarGRID[™] ST7590 SoC PRIME power line communication demonstration kit

Data brief



Features

- PRIME power line communication development kit based on STarGRID ST7590 PLC SoC
- Complete EN50065 compliant reference design for modular and integrated PRIMEbased application developments
- Onboard STM32[™] microcontroller for PRIME upper protocol layers, system management and application host controller
- Flexible 2-board architecture:
 - EVALST7590-Q1, PRIME PLC board based on the ST7590 system-on-chip
 - EVLALTAIR900-M1, wide-range input voltage, 7.5 W power supply board based on the ALTAIR04-900 quasi-resonant
- USB host interface.
- UART/I²C connector to interface external boards
- Intuitive "Graphical User Interface" (GUI)
- Suitable for CENELEC EN50065 and FCC part 15 compliant applications

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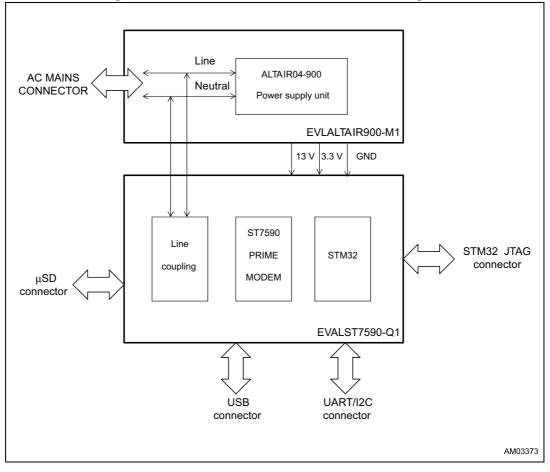
Description

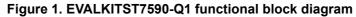
Based on the ST7590 power line communication system-on-chip, the EVALKITST7590-Q1 demonstration kit embeds all the functions required for a turnkey power line communication network: the PLC node based on the ST7590 device, the AC power supply based on the ALTAIR4-900 SMPS controller and the STM32 microcontroller, to implement upper layers of PRIME protocol, and either control the system as a standalone application or to connect the EVALST7590-Q1 to an external host.

The EVALST7590-Q1 device embeds STMicroelectronics[®] Full PRIME protocol stack and provides a complete reference for PRIMEbased application developments such as smart meters or concentrators, and is an ideal standalone tool for in field PRIME network tests.

For further information contact your local STMicroelectronics sales office.

Block diagram







Revision history

| Date | Revision | Changes |
|-------------|----------|------------------|
| 16-Oct-2013 | 1 | Initial release. |

Table 1. Document revision history



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