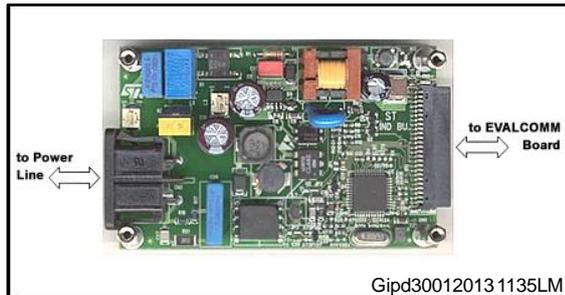




ST7538Q FSK powerline transceiver evaluation board

Data brief



Features

- Practical tool to start designing a PLC node based on the ST7538Q power line FSK transceiver
- Composed of three main sections:
 - Wide-range input power supply section based on VIPer12A-E, specifically designed to coexist with PLC
 - ST7538Q transceiver section
 - Line coupling interface section tuned for 72-86 kHz dual channel
- Suitable for pointing to multi-point two-way communication over AC mains
- Suitable for CENELEC EN50065 and FCC part 15 compliant applications
- Controllable by a PC through EVALCOMMBOARD general purpose board
- Programmable through intuitive graphical user interface (GUI) for Windows® with full control of ST7538Q parameters

Description

The EVALST7538DUAL board integrates the ST7538 power line transceiver along with the power supply section, the signal coupling interface section, the crystal oscillator and device protections. The coupling interface section has been realized for communication on CENELEC A-band used mainly for AMR applications, with the chance of programmable switching between 72 kHz and 86 kHz communication channels. This half-duplex “dual channel” communication feature has been implemented through optimized receiving and transmitting filters on the board.

EVALST7538DUAL board must be connected to a PC through the EVALCOMMBOARD general purpose board. The dedicated SW running on the PC can be downloaded from “www.st.com/powerline” web page.

The typical application environment consists of two or more EVALST7538DUAL connected to the same mains line, each connected to its own EVALCOMMBOARD controlled by a PC running the EVALCOMMBOARD GUI software.

1 Revision history

Table 1: Document revision history

| Date | Revision | Changes |
|-------------|----------|--|
| 08-Jun-2006 | 1 | Initial release |
| 06-Mar-2013 | 2 | Updated title and description on the cover page. |

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