EVALST7540-2

The ST7540-2 FSK powerline transceiver evaluation board

Data brief

Features

- Practical tool to start designing a PLC node based on the ST7540 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
  - ST7540 transceiver section
  - Line coupling interface section tuned for 72 kHz 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 the ST7540 parameters

Description

The EVALST7540-2 board integrates the ST7540 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 around 72 kHz carrier frequency, within the European CENELEC standard A-band specified for automatic meter reading (AMR) applications. This communication feature has been optimized through tuned receiving and transmitting filters on the board.

The EVALST7540-2 board must be connected to a PC through the EVALCOMMBOARD general purpose board. The dedicated graphical user interface (GUI) running on the PC can be downloaded from "www.st.com/powerline" web page.

The typical application environment consists of two or more EVALST7540-2 connected to the same mains line, each being connected to its own EVALCOMMBOARD controlled by a PC running the EVALCOMMBOARD GUI software.
1 Revision history

Table 1: Document revision history

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<tr>
<th>Date</th>
<th>Revision</th>
<th>Changes</th>
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<tr>
<td>11-Mar-2013</td>
<td>1</td>
<td>First release.</td>
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