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EVALKITST7580-1

ST7580 power line networking system-on-chip demonstration kit

Data brief

Features

- Suitable for point-to-multipoint 2-way power line communication (PLC) over AC mains
- Flexible 2-board architecture:
  - EVALST7580-1, PLC board based on the ST7580 narrow-band FSK/PSK power line networking system-on-chip
  - EVLALTAIR900-M1, wide-range input voltage, 7.5 W power supply board based on the ALTAIR04-900 quasi-resonant current-mode SMPS controller
- STM32 microcontroller hosted on the EVALST7580-1 board to handle the ST7580 device and build a standalone power line node
- External access through several interface types: USB, SPI, I^2C, USART, JTAG
- Opportunity to save and load data to/from an external µ-SD card
- Intuitive graphical user interface (GUI) for the Windows® environment with fully programmable transceiver parameters
- Suitable for CENELEC EN50065 and FCC part 15 compliant applications



EVALKITST7580-1

Description

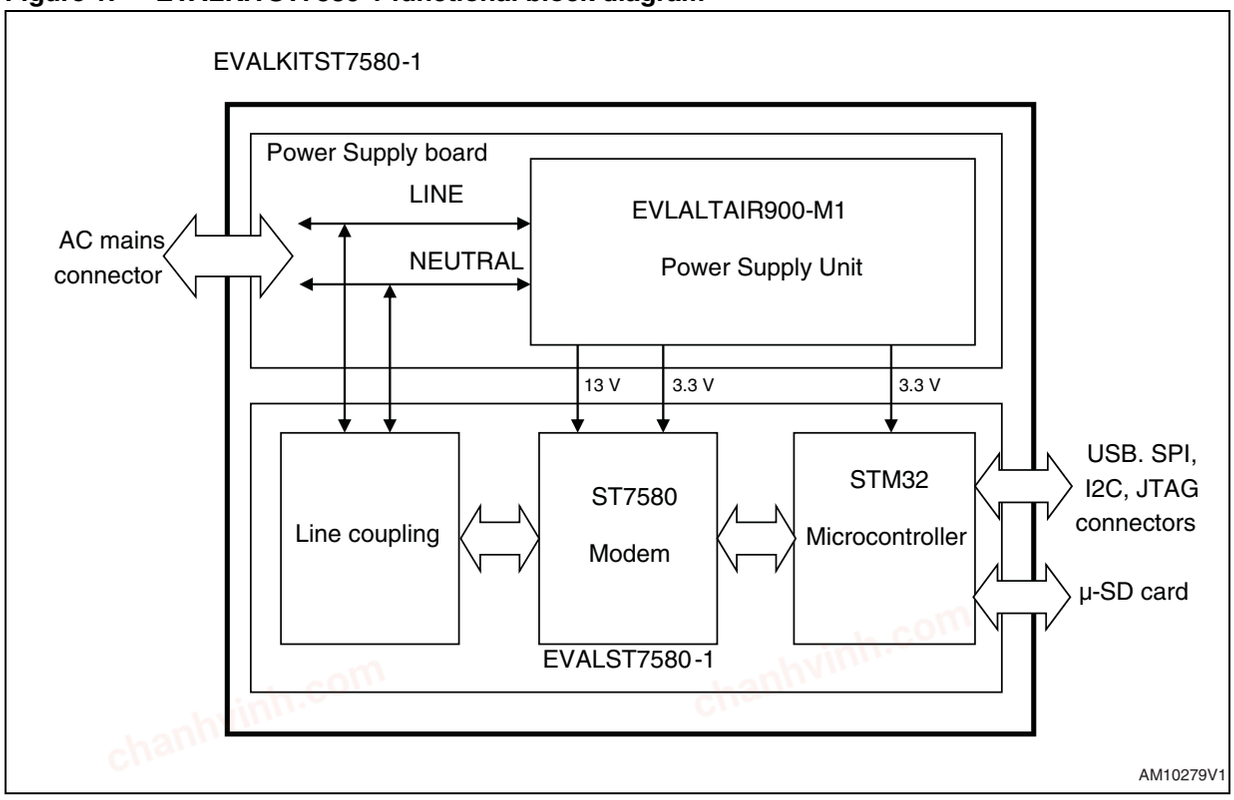
Built around the ST7580 power line networking system-on-chip, this demonstration kit embeds all the functions required for a “turnkey” power line communication network: the PLC node based on the ST7580, the AC power supply (based on the ALTAIR4-900 chip) and the STM32 microcontroller, to either control the system as a standalone application or to connect the EVALKITST7580-1 to an external host.

The typical application environment consists of two or more EVALKITST7580-1s connected to the same mains line, each being controlled by a PC running the ST7580 GUI software.

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1 Block diagram

Figure 1. EVALKITST7580-1 functional block diagram



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2 Revision history

Table 1. Document revision history

Date	Revision	Changes
15-Feb-2012	1	Initial release.

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