



# ST7232X-EVAL

## Insem's ST-STEP64 Evaluation Board for ST7232x and ST7252x

DATA BRIEF

The **Insem ST-STEP64 Evaluation Board** (ST7232X-EVAL) is an adaptable, full-featured evaluation board that allows you to try out the features of the **ST7232x** and **ST7252x**, and develop applications for these microcontrollers. Its innovative design allows stand-alone operation (application running on the included ST72F521R microcontroller), or operation while connected to your host-PC using the low-cost ST7MDT20-DVP3 emulator.

### Evaluation Board Architecture

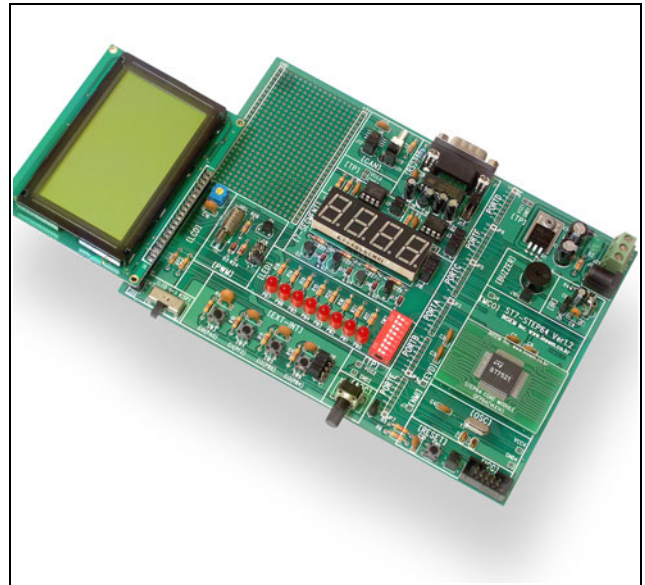
**ST-STEP64 evaluation board** – a full-featured evaluation board (PWM, LCD, I<sup>2</sup>C, UART, SPI, CAN, potentiometer, LEDs, I/Os,... etc.), it includes connectors and accessories to facilitate switching between operation with a microcontroller or the ST7MDT20-DVP3 emulator. The ST-STEP64 also integrates a 10-pin ICC connector for easy programming of the microcontroller using an in-circuit programming tool for ST7.

**TQFP64 14x14 Core Module with ST72F521R9T** – included daughter board with ST72F521R97 that makes it possible to run your application in stand-alone mode on the microcontroller.

Also Includes pre-wired daughter board PCBs, ready for mounting of connectors and supported MCUs in TQFP80 (14x14), TQFP64 (10x10) and TQFP32, so that you can make your own Core Module for an ST7232x or ST7252x.

**ST7MDT20-DVP3 emulator (not included)** – this low-cost ST7-DVP3 series emulator provides a hardware interface with the host PC for debugging application software and in-circuit programming of the ST72F521R97 or other ST7 flash microcontroller. The evaluation board comes with the additional flat cable and the adapter required for connection to an ST7MDT20-DVP3 emulator.

Figure 1. ST-STEP64 evaluation board



For more information about the ST7MDT20-DVP3, please refer to the *ST7-DVP3 Data Brief*.

**ST7 Visual Develop (STVD7)** – the free integrated development environment for ST7 featuring simulator and full integration of Cosmic and Metrowerks C toolsets. STVD7 runs on the host PC, allowing you to debug applications with an emulator, or to in-circuit program an application to the target ST7 and in-circuit debug the application while it runs on the ST7 on your evaluation board.

For more information, please refer to *AN978 ST7 Visual Develop Key Features*.

### Key Features

#### ST-STEP64 Evaluation board:

The ST-STEP64 includes a complete range of features for evaluating the ST7232x and ST7252x microcontrollers, including:

- 128 x 64 Graphic LCD display on a removable board.
- Motor speed and beep control using PWM
- RS232, I<sup>2</sup>C, SPI and CAN interfaces
- External interrupt with 4 TACT switches
- Internal variable resistance for ADC design
- 8 LEDs for checking I/O port operating status
- Integrated 7-Segment display for dynamic checking of I/O port operating status
- IR sensor
- ST-standard ICC connection for easy in-circuit programming
- Wrapping area

For further information about this and other development tools for ST7, please refer to [www.st.com/mcu](http://www.st.com/mcu).

## Revision history

| Date             | Revision | Changes          |
|------------------|----------|------------------|
| 18-November-2005 | 1        | Initial release. |

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