S7 Mini - Fully Open-Source Module with Xilinx Spartan-7 7S25 + 64 MBit HyperRAM

- **Order number:** TE0890-01-25-1C

Product information "S7 Mini - Fully Open-Source Module with Xilinx Spartan-7 7S25 + 64 MBit HyperRAM"

The Trenz Electronic TE0890-01-25-1C is a FPGA module integrating a Xilinx Spartan-7, 64 MBit HyperRAM DRAM (may be used as video frame buffer), 64 MBit Config PROM for dual-boot and/or SW code storage and dual-pinout DIP-40 or 50mil 80 pin connectors for 32 or 64 FPGA 3.3V I/Os

The module is footprint compatible with 7S6, 7S15, 7S50 FTGB-196 devices.

All parts are at least commercial temperature range of 0°C to +70°C. The module operating temperature range depends on customer design and cooling solution. Please contact us for options.

Key Features

- Xilinx Spartan-7 XC7S25-1FTGB196C FPGA
- Dimension: 2.7 x 5.2 cm
- Fully Open-Source Spartan-7 Module
- 7S25 target with 23K logic cells, 29K flops, 45 36Kb BRAMs, 80 mults.
- Footprint compatible with 7S6, 7S15, 7S50 FTGB-196 devices
- Devices fully supported by free "Web Pack" Vivado for Synthesis, Place + Route
- Dual-pinout DIP-40 or 50mil 80 pin connectors for 32 or 64 FPGA 3.3V I/Os
- 64 MBit Config PROM for dual-boot and/or SW code storage
- 64 MBit HyperRAM DRAM (may be used as video frame buffer)
- Standard 1x6 FTDI cable serial interface to Host-PCs
- Standard 1x6 Digilent HS2 JTAG header for initial PROM programming
- 5V supply input (4.0V-5.5V per PAM2305 spec)

Other assembly options for cost or performance optimization plus high volume prices available on request.

Recommended Software

Vivado HL WebPACK Edition (free version)

The Vivado Design Suite HL WebPACK Edition is the FREE version of the design suite. Vivado HL WebPACK delivers instant access to some basic Vivado features and functionality at no cost.

Overview of all editions of Vivado Design Suite

Development Support

Latest documentation, design support files and reference designs with source files are available for download free of charge (to be announced soon).

Scope of Delivery

- 1 x FPGA module TE0890-01-25-1C with Xilinx Spartan-7

Additional Information

- Manufacturer's article number: TE0890-01-25-1C
- Trenz Electronic TE0890 Wiki
- Support Forum

  All modules produced by Trenz Electronic are developed and manufactured in Germany.

1x20 Pin Header

16 x IO

1x40 Pin Header

32 x IO

Xilinx Spartan
XC7S25 FPGA

SPI FLASH
U6

2 x LED red
D1, D2

Bank 14

HyperRAM U2

FTDI/UART/4 x IO

1x6 Pin Header

Bank 34

2 x IO

2x3 Jumper
Pin Header

JTAG

Oscillator
100 MHz, U3

1x6 Pin Header

LED red D3
(Power)

32 x IO

1x40 Pin Header

16 x IO

1x20 Pin Header