

# Micromodule with Xilinx Kintex UltraScale XCKU040-1SFVA784I, 2 GByte DDR4

Order number: TE0841-02-040-11

# Product information "Micromodule with Xilinx Kintex UltraScale XCKU040-1SFVA784I, 2 GByte DDR4"

The Trenz Electronic TE0841-02-040-1I is an industrial-grade FPGA module integrating a Xilinx Kintex UltraScale KU40, 2 banks of 512 MByte (16 bit width) DDR4, 32 MByte QSPI Flash for configuration and operation, and powerful switch-mode power supplies for all on-board voltages. A large number of configurable I/O's is provided via rugged high-speed stacking strips.

All this on a tiny footprint, smaller than a credit card, at the most competitive price. Modules in 4 x 5 cm form factor are fully mechanically and largely electrically compatible among each other.

All parts are at least industrial temperature range of -40°C to +85°C. The module operating temperature range depends on customer design and cooling solution. Please contact us for options.

## **Key Features**

- Xilinx Kintex UltraScale KU40 FPGA XCKU040-1SFVA784I
- Rugged for industrial application
- Size: 40 x 50 mm
- 3 mm mounting holes for skyline heat spreader
- 2 GByte 16 bit wide DDR4
- 64 MByte SPI Boot Flash
- B2B Connectors: 3 x Razor Beam, total 260 terminals
  - User I/O: HR 56, HP 84
  - Serial transceiver: GTH 8 lanes (all)
  - o GT clock inputs: 2

- Clocking
  - Si5338 4 output PLL, GT and PL clocks
  - 200 MHz LVDS oscillator
- Power
  - o All power supplies on board, single supply operation supported.
  - User defined IO-Bank power
- Evenly spread supply pins for good signal integrity.

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

#### Recommended Software

Vivado HL Design Edition

Overview Xilinx Vivado Versions

### **Development Support**

There are different base boards available for this module.

Latest documentation, design support files and reference designs with source files are available for download free of charge.

# **Package Content**

• 1 x TE0841-02-040-11 Micromodule 4 x 5 cm with Kintex UltraScale XCKU040 (industrial temperature range)