



## Micromodule with Xilinx Kintex UltraScale KU040, 1C,2 GByte DDR4, 4 x 5 cm

**Order number:** TE0841-02-040-1C

The Trenz Electronic TE0841-02-040-1C is a FPGA module integrating a Xilinx Kintex UltraScale KU40, 2 GByte DDR4 SDRAM, 64 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 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.

*This product is not always in stock, but will be produced on customer order (on demand).*

*Please ask for any minimum quantities.*

## Key Features

- Xilinx Kintex UltraScale KU40 FPGA XCKU040-1SFVA784C
- Rugged for industrial application
- Size: 40 x 50 mm
- 3 mm mounting holes for skyline heat spreader
- 2 GByte DDR4 SDRAM
- 64 MByte QSPI Boot Flash
- B2B Connectors: 3 x Razor Beam, total 260 terminals
  - User I/O: HR 56, HP 84
  - Serial transceiver: GTH 8 lanes (all)
  - GT clock inputs: 2
- Clocking
  - Si5338 - 4 output PLL, GT and PL clocks
  - 200 MHz LVDS oscillator
- Power
  - 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 Design Suite - HLx Edition Download

Vivado Design Suite HLx Editions include Partial Reconfiguration at no additional cost with the Vivado HL Design Edition and HL System Edition. In-warranty users can regenerate their licenses to gain access to this feature.

Overview of all Editions of Vivado Design Suite Editions

## 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 TE0841-02-040-1C Micromodule 4 x 5 cm with Kintex UltraScale XCKU040 (commercial temperature range)
- 4 x bolts and screws

