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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## TE0808-04-09-1EE-S Starter Kit

**Order number:** TE0808-04-09-1EE-S

**Product information "TE0808-04-09-1EE-S Starter Kit"**

The Trenz Electronic Starter Kit TE0808-04-09-1EE-S consists of a TE0808-04-09EG-1EE module with ZU9 on a TEBF0808-04 base board including a pre-assembled heatsink, in a black Core V1 Mini-ITX Enclosure. Supplied with a Be Quiet! 400W power supply for the enclosure, two mounted XMOD FTDI JTAG Adapter, an 8 GB micro SD card, an USB cable, screws and bolts.

## TE0808-04-09-1EE

The Trenz Electronic TE0808-04-09EG-1EE is a MPSoC module integrating a Xilinx Zynq UltraScale+, 4 GByte DDR4 SDRAM, 128 MByte Flash memory for configuration and operation, 20 Gigabit transceivers, 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 connections.

### TE0808-04-09-1EE Key Features

- Xilinx Zynq UltraScale+ XCZU9EG-1FFVC900E
- ZU9EG 900 Pin Packages
- 3 mm mounting holes for skyline heat spreader
- Size: 52 x 76 mm
- B2B Connectors: 4 x 160 pin
- Rugged for shock and high vibration
- 4 GByte 64-Bit DDR4 SDRAM
- 128 MByte SPI Boot Flash (dual parallel)
- User I/Os
  - 65 x PS MIOs, 48 x PL HD GPIOs, 156 x PL HP GPIOs (3 banks)
  - Serial transceivers: 4 x GTR + 16 x GTH
  - Transceiver clocks inputs and outputs
  - PLL clock generator inputs and outputs
- Si5345 - 10 output PLL
- All power supplies on board, single 3.3V Power required
  - 14 on-board DC/DC regulators and 13 LDOs
  - LP, FP, PL separately controlled power domains
- Support for all boot modes (except NAND) and scenarios
- Support for any combination of PS connected peripherals
- 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

### TEBF0808-04 Base board

The Trenz Electronic TEBF0808 UltraITX+ base board has been developed individually for the TE0808 UltraSOM+ MPSoC.

## Key Features TEBF0808-04

- Mini-ITX form factor
- ATX Power supply connector (12V only PS Required)
- optional 12V Standard Power Plug
- USB3 with USB3 HUB
- Gigabit Ethernet RJ45
- MicroSD Card (bootable)
- eMMC (bootable)
- PCIe slot - PS GT Connected, one PCIe lane (16 Lane Connector)
- Displayport Single Lane PS GT Connected
- One SATA Connector
- FMC HPC Slot (1.8V max VCCIO)
- Dual SFP+
- One Samtec FireFly (4 GT lanes bidir)
- One Samtec FireFly connector for reverse loopback
- Fan connectors, PC Enclosure, FMC Fan
- Intel front panel connector (PWR/RST/LED)
- Intel HDA Audio connector
- CAN FD Transceiver (10 Pin IDC Connector)
- 20 Pin ARM JTAG Connector (PS JTAG0)

## PC Enclosure Accessible I/O

- PCIe
- FMC
- Dual SFP+
- RJ45 Gigabit Ethernet
- 2x USB3 Host
- Displayport
- microSD
- Two LED's
- CAN FD (using DB9 to IDC10 Cable)

## Core V1 Mini-ITX Gehäuse - technical features

- Dimensions: 260 x 276 x 316 mm (B x H x T)
- Material: Steel
- Colour: Black
- Drive Slots: 2 x 3,5 Zoll (intern, 3,5 Zoll) and 2 x 2,5 Zoll (intern, 2,5 Zoll)
- Expansion slots: 2
- I/O-Panel: 2 x USB 3.0 and 1 x Audio In/Out each
- Maximum graphic card length: 255 mm (inner enclosure)
- Maximum graphic card length: 285 mm (outer enclosure)
- Maximum CPU cooler height: 140 mm
- Maximum length power supply: 200 mm

## Package Content Starter Kit

- 1 x Core V1 Mini-ITX Enclosure- black with viewing window and removable sled walls
- 1 x Power Supply Be quiet! BN142 System Power 7, 400 Watt, 12V, ATX 2.3 with fan
- 1 x TE0808-04-09EG-1EE with ZU9
- 1 x TEBF0808-04 base board
- 1 x Heatsink MBH31001-15W/2.6
- 1 x TE0790-02 XMOD FTDI JTAG Adapter (compatible with Xilinx-Tools), pre-assembled
- 1 x TE0790-02L XMOD FTDI JTAG Adapter (independent from Xilinx-Tools), pre-assembled
- 1 x 8 GB Class 4 microSDHC card
- 1 x USB cable, Typ A to Typ B Mini, 2 meter length
- 2 x Phillips screws, M3 x 6, pan head, zinc coated
- 2 x Spacer bolts, M3, 10 mm

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





