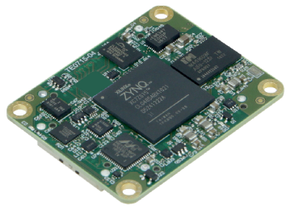
4 x 5 cm Form Factor

All Trenz Electronic SoMs in 4 x 5 cm form factor are mechanically compatible.



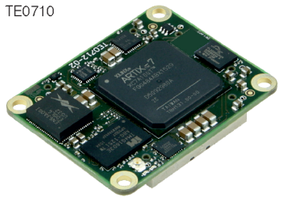
ZYNQ

TE0715 Xilinx Zynq-7015, -7030
TE0720 Xilinx Zynq-7020
Up to 1 GByte DDR3 SDRAM,
32 MByte Flash, Ethernet,
132/152 I/O + 14 MIO, USB,
four high speed serial transceiver,
eMMC, RTC, single supply

ARTIX 7

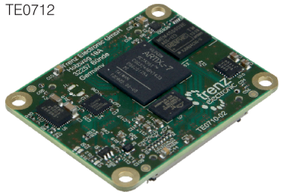
Xilinx Artix-7 A35T - 200T
Up to 1 GByte DDR3(L) SDRAM, 32 MByte Flash, Ethernet,
USB, up to 178 total I/O (TE0711), single supply

TE0710



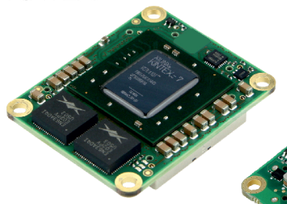
TE0711

TE0712



TE0713

TE0741
KINTEX 7



TE0841
KINTEX
UltraSCALE

TE0820
ZYNQ
UltraSCALE+

Xilinx Zynq-7000 Automotive

- Xilinx XA7Z020-1CLG484Q (Automotive)
- Form factor 6 x 6 cm
- Plug-on module with 3 x 80-pin high-speed strips
- 512 MByte DDR3L SDRAM
- 16 MByte QSPI Flash memory
- 76 single ended I/O, 24 LVDS pairs (48 I/O) + 42 MIO available
- 2 x 100 MBit Ethernet transceiver PHY
- CAN transceiver (PHY)
- Temperature compensated RTC
- Within the complete module only Automotive components are installed.

ZYNQ

TE0728 with Xilinx
Zynq-7020 Automotive

Service

Trenz Electronic GmbH operates as a provider of development services in the electronics industry since 1992. Our service includes design-in support as well as turnkey designs which typically covers all steps from product specification, hard- and software design up to prototyping and production. We are particularly specialized in the design of high-speed data acquisition, high-accuracy measurement and embedded digital signal processing systems based on FPGA and CPU architectures.

Many of our products are compatible with some widespread form factors. We also provide SoM products for Automotive industry and high-end applications.

Customers benefit from our engineering expertise focused on embedded systems in industrial environments, as well as PC-based process control and measurement systems. Our development service is supplemented by FPGA- and MCU-based development boards and tools. In case that an off-the-shelf FPGA board won't fit customers' requirements, the design can easily be adapted by our comprehensive engineering design services.

Our in-house EMS and worldwide distribution of FPGA and SoC modules, baseboards, starter kits, FMCs and FMC carriers, CPCIS cards and development boards complete the portfolio.

All modules are developed and manufactured in Germany.

XILINX
ALLIANCE PROGRAM
CERTIFIED

Trenz Electronic GmbH is a certified member of the Xilinx Alliance Program and also European partner and official distributor of Digilent Inc., USA.

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Trenz Electronic GmbH
Holzweg 19A, 32257 Bünde, Germany
Phone: +49 (0)5223 65 30 1-0
Fax: +49 (0)5223 65 30 1-30
info@trenz-electronic.de
www.trenz-electronic.de

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ISO 14001 REGISTERED FIRM — ISO 14001:2015 (environmental management) certified

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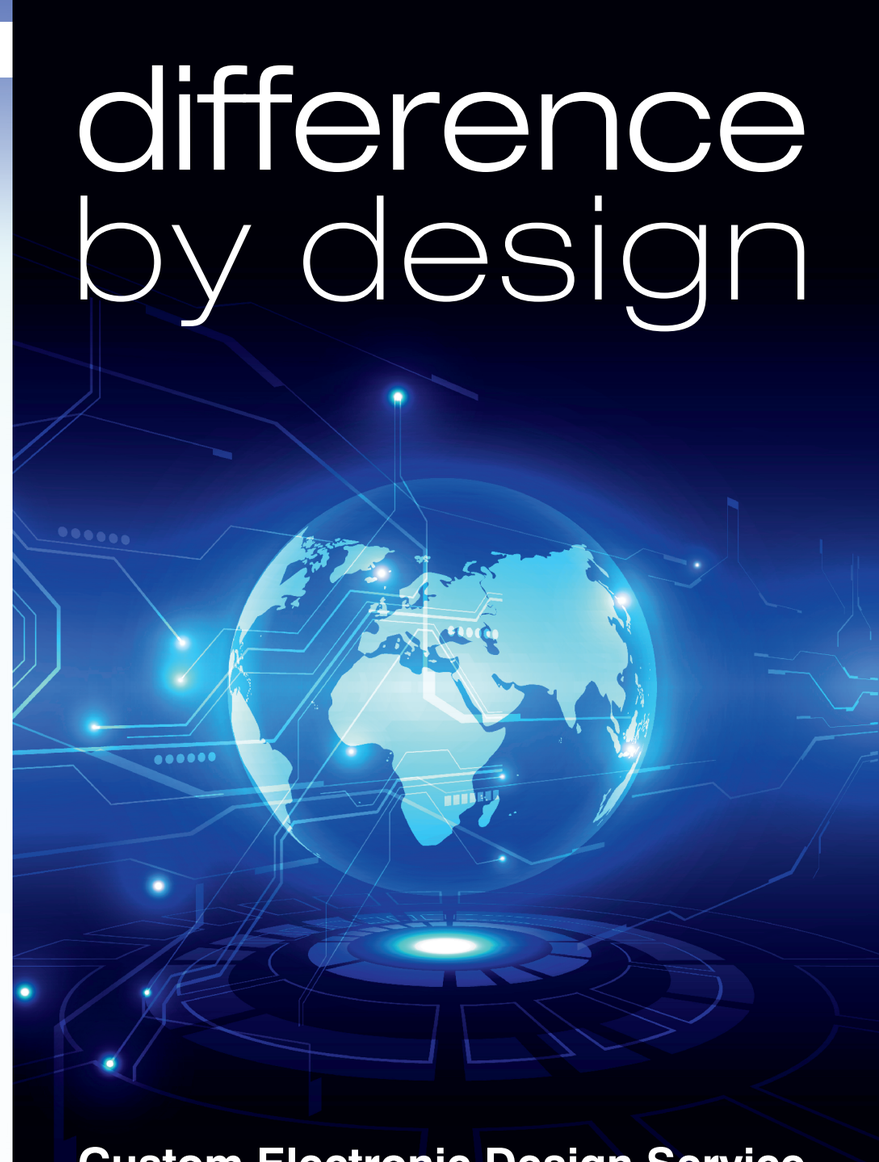
difference by design



Custom Electronic Design Service

Development, manufacturing and supply of FPGA and SoC modules

- Customizable
- Rapid prototyping
- Extended device life cycle
- Rugged for industrial applications
- Automotive grade available
- Small and powerful
- Cooling solutions
- Baseboards

www.trenz-electronic.de
shop.trenz-electronic.de
info@trenz-electronic.de

trenz electronic GmbH

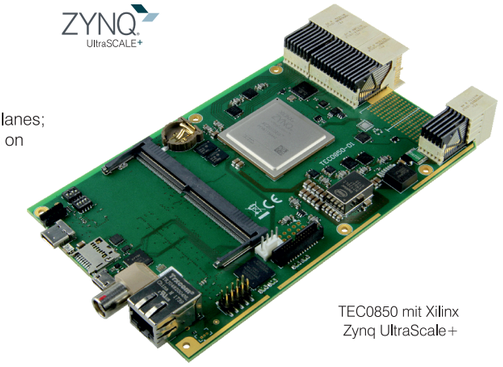
Xilinx Zynq UltraScale+

- Xilinx Zynq UltraScale+ MPSoC ZU2 - ZU15
- Form factor 5.2 x 7.6 cm
- TE0803 784 pin packages, TE0807 B900 pin packages, TE0808 C900 pin packages
- Up to 8 GByte DDR4 SDRAM
- 128 MByte Quad-SPI Flash
- Plug-on module with 4 x 160 pin B2B connectors
- Up to 204 I/O + 65 MIO
- Serial transceiver (TE0808/-07) 4 x GTR + 16 x GTH
- Serial transceiver (TE0803) PS GTR 4 + PL GTH 4
- Graphic Processing Unit (GPU)/Video codec unit (VCU) depending on model variant
- All power supplies on board, single 3.3V power source required

- Xilinx Zynq UltraScale+ MPSoC
- Form factor 4 x 5 cm
- Plug-on module with 3 x 160 pin B2B connectors
- Up to 4 GByte DDR4 SDRAM
- Quad-SPI boot Flash dual parallel, 512 MByte maximum
- 136 I/Os + 14 MIOs
- 4 x serial PS GTR transceivers
- 4 GByte eMMC (up to 64 GByte)
- 1 GBit Ethernet transceiver PHY
- Graphic Processing Unit (GPU)/Video codec unit (VCU) depending on module variant
- All power supplies on board

CompactPCI Serial Card

- Xilinx Zynq UltraScale+ ZU9-15EG
- 3U form factor, 8HP CompactPCI Serial
- 8 (up to 32) GByte DDR4 SODIMM
- 128 MByte QSPI Boot Flash dual parallel
- Rear I/O: 32 x differential pairs; 24 x GTH lanes; 4 x PS GTR Lanes; 2 x USB 2.0 (depends on assembly variant)
- USB 3.0
- Gigabit Ethernet
- MicroSD card alot
- JTAG, UART via Micro USB
- 2 x EEPROM
- Real time clock
- Zynq MPSoC cooling fan connector



TEC0850 mit Xilinx Zynq UltraScale+

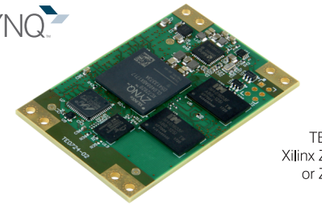
Smallest Module with Transceiver

- Xilinx Artix-7 XC7A35T or 50T
- Form factor 4 x 3 cm
- 16 MByte QSPI Flash memory
- 144 FPGA I/O's (max 68 differential)
- XADC analog Input
- 4 GTP lanes
- Standard 3.3 V configuration (special configuration 1.8 V)
- Cooling solution and carrier board available

TE0714 with Xilinx Artix-7

Customized Zynq

- Xilinx Zynq-7010 or Zynq-7020
- Form factor 6 x 4 cm
- 1 GByte DDR3L SDRAM
- 32 MByte QSPI Flash memory
- 1x 1/100/1000 Mbps Ethernet transceiver
- 1 x MAC address EEPROM
- 128 KBit EEProm
- On-board DC/DC regulators



TE0724 with Xilinx Zynq-7010 or Zynq-7020

High-performance and mid-range Zynq

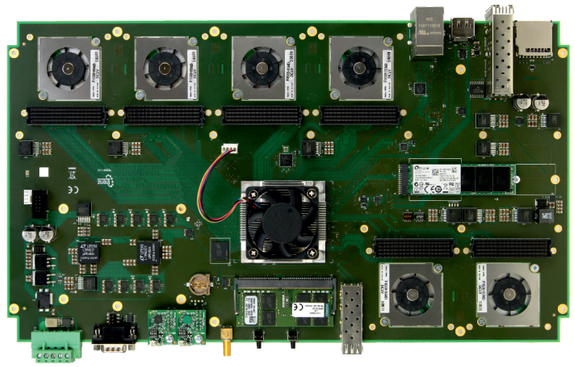
- Xilinx Zynq-7100 SoC XC7Z100-2FFG900I
- Form factor 8.5 x 8.5 cm
- 1 GByte DDR3 SDRAM, 32 MByte QSPI Flash
- 2 x high-speed USB2.0 ULPI transceiver PHY
- 2 x Gigabit Ethernet PHY
- 2 x Ethernet MAC address EEPROM
- 4 GByte eMMC (up to 64 GByte possible)
- 16 GTX high-performance tranceiver lanes, GTX high-performance transceiver clock input

TE0782 with Xilinx Zynq-7035 up to -7100

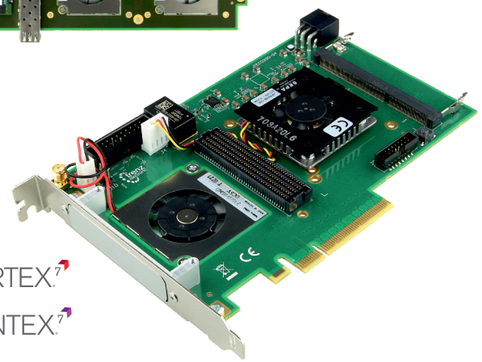
- Xilinx Zynq-7030, -7035, -7045
- Form factor 5.2 x 7.6 cm
- Plug-on Modul with 3 x 160 pin high speed stripes
- 1 GByte DDR3 SDRAM, 64 MByte SPI Flash
- 250 FPGA I/O + 6 MIO
- 8 x GTX (Zynq-7030: 4 x GT)
- 1 GBit Ethernet PHY
- USB 2.0 OTG PHY

TE0745 with Xilinx Zynq-7030, -7035 and -7045

FMC Carrier

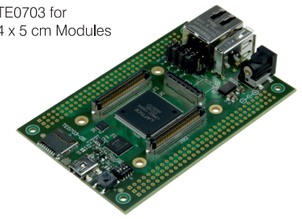


TEB0911 with Xilinx Zynq UltraScale+
TEC0330 with Xilinx Virtex-7
TEF1001 with Xilinx Kintex-7

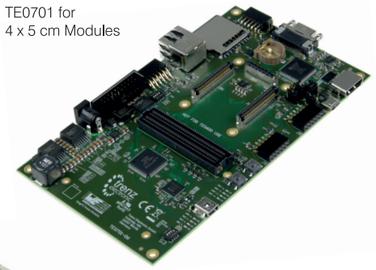


Carrierboards

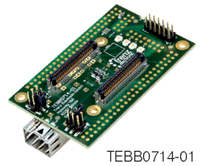
TE0703 for 4 x 5 cm Modules



TE0701 for 4 x 5 cm Modules

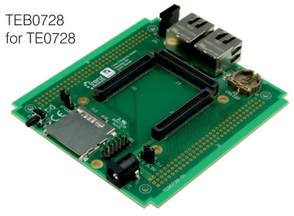


TEBF0808 for TE08xx series

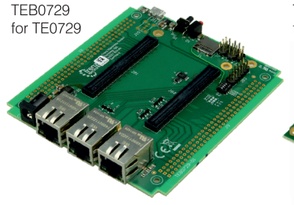


TEBB0714-01 for TE0714

TEB0728 for TE0728



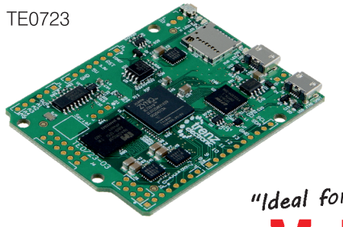
TEB0729 for TE0729



TEBA0841 for TE0841

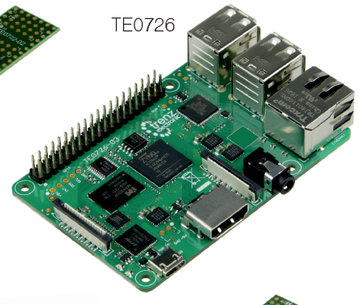
Form Factor like Raspberry PI 2 | Arduino | DIP40 Form Factor

TE0723



TE0722

TE0726



"Ideal for Maker"
Make:

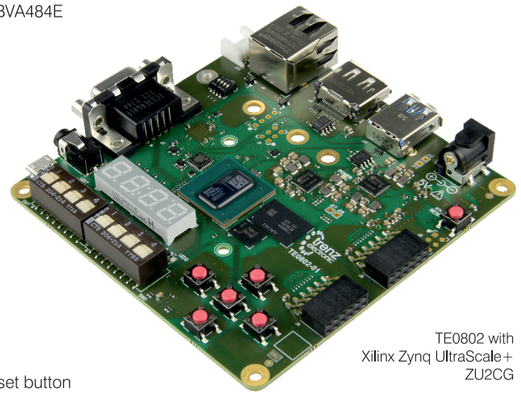
- Xilinx Zynq-7010/Artix-7/Spartan-7 FPGA
- Up to 512 DDR3L RAM
- QSPI Flash memory
- depending on module: USB transceiver/ Micro USB OTG/MicroSD Card slot/ display and camera connector, HDMI type A/audio plug, Pmod connectors, MEMS oscillator

TE0890

TE0725

MPSoC Development Board

- Xilinx Zynq UltraScale+ XCZU2CG-1SBVA484E
- 1 GByte LPDDR4 memory
- Storage
  - 32 MByte SPI Flash
  - MicroSD card
  - M2 PCIe SSD support
- Audio: 3.5 mm jack
- User I/O: 2 x Pmod connectors
- Display
  DisplayPort, VGA, 4-digit LED, 8 LEDs
- Communication and Debug
  - USB 3.0 Host (type A connector)
  - USB JTAG/UART microUSB
  - Gigabit Ethernet RJ45
- Input
  5 push buttons, 8 bit slide switches, reset button
- EEPROM
- Power supply: 5 V plug



TE0802 with Xilinx Zynq UltraScale+ ZU2CG

Other assembly options for cost or performance optimization available on request. Cooling solutions and carrier boards are available.