Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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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SoC Module with Xilinx Zynq XC7Z020, 1 GByte DDR3, 8 GByte e.MMC

- Order number: TE0720-03-1CFA

Product information "SoC Module with Xilinx Zynq XC7Z020, 1 GByte DDR3, 8 GByte e.MMC"

The Trenz Electronic TE0720-03-1CFA are SoC modules integrating a Xilinx Zynq-7020, a gigabit Ethernet transceiver, 8 GBit (1 GByte) DDR3 SDRAM with 32-Bit width, 32 MByte Flash memory 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.

Key Features

- Xilinx Zynq XC7Z020-1CLG484C
- Rugged for high shock and vibration
- ARM dual-core Cortex-A9 MPCore
- 10/100/1000 tri-speed Gigabit Ethernet transceiver (PHY), SGMII accessible on a board-to-board connector
- USB 2.0 high speed ULPI transceiver
- 32-bit-wide 1 GByte DDR3 SDRAM
- 32 MByte QSPI Flash memory (for configuration and operation)
- 8 GByte e.MMC (up to 32 GByte)
- Plug-on module with 2 × 100-pin and 1 x 60-pin high-speed hermaphroditic strips
- 152 FPGA I/O's (75 LVDS pairs possible) and 14 MIO's available on board-to-board connectors
- On-board high-efficiency DC-DC converters
  - 4.0 A x 1.0 V power rail
  - 1.5 A x 1.5 V power rail
  - 1.5 A x 1.8 V power rail
- System management and power sequencing
- eFUSE bit-stream encryption

- AES bit-stream encryption
- Valid MAC Address and 2K serial EEPROM
- SHA-256 authentication chip with unique serial number
- RTC, temperature compensated
- 3 user LED
- Evenly-spread supply pins for good signal integrity

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

Depending on the customer design, additional cooling might be required.

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.

All 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

- 1x TE0720-03-1CFA Trenz Electronic 4 x 5 cm Micromodule
- 4x bolts and screws

Additional Information

- Manufacturer's article number: TE0720-03-1CFA
- Trenz Electronic TE0720 Wiki
- Support Forum

The online pictures of this product are not a legally binding offer, but are symbol pictures for illustration and presentation only.

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