Avnet Product Brief

MicroZed™ Evaluation Kit

DESIGNED BY AVNET

Features

» **SoC**
  » XC7Z010-1CLG400C

» **Memory**
  » 1 GB of DDR3 SDRAM
  » 128 Mb of QSPI Flash
  » Micro SD card interface

» **Communications**
  » 10/100/1000 Ethernet
  » USB 2.0
  » USB-UART

» **User I/O (via dual board-to-board connectors)**
  » 100 User I/O (50 per connector)
  » Configurable as up to 48 LVDS pairs or 100 single-ended I/O

» **Other**
  » 2x6 Digilent Pmod® compatible interface providing 8 PS MIO connections for user I/O
  » Xilinx PC4 JTAG configuration port
  » PS JTAG pins accessible via Pmod
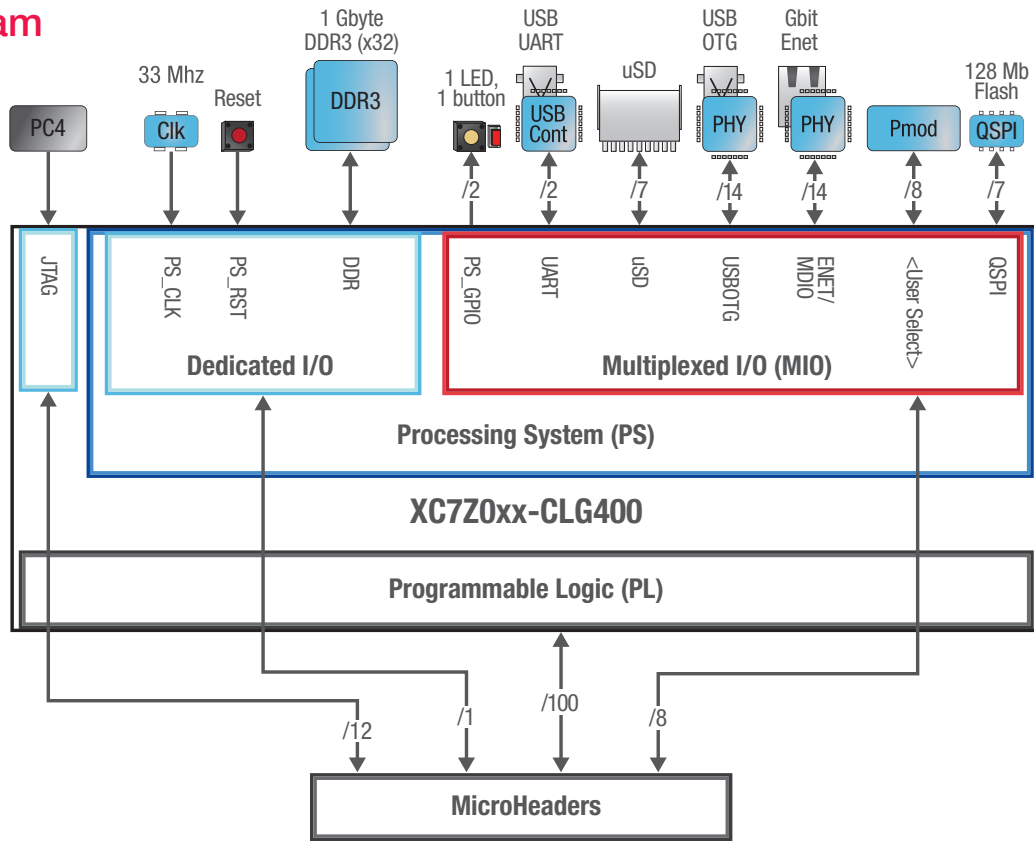 » 33.33 MHz oscillator
  » User LED and push switch

Target Applications

» General Zynq®-7000 AP SoC evaluation and prototyping
» Embedded system-on-module (SOM) applications
» Embedded vision
» Test & measurement
» Motor control
» Software-defined radio

MicroZed™ is a low-cost development board based on the Xilinx Zynq®-7000 All Programmable SoC. Its unique design allows it to be used as both a stand-alone evaluation board for basic SoC experimentation, or combined with a carrier card as an embeddable system-on-module (SOM). MicroZed contains two I/O headers that provide connection to two I/O banks on the programmable logic (PL) side of the Zynq®-7000 AP SoC device. In stand-alone mode, these 100 PL I/O are inactive. When plugged into a carrier card, the I/O are accessible in a manner defined by the carrier card design. Thus designers can start with MicroZed in stand-alone mode as a learning platform and then easily expand its functionality as a SOM through the addition of an off-the-shelf or custom designed carrier card. This combined stand-alone/SOM approach can quickly move a design idea from concept to production, making MicroZed the ideal platform for SoC based applications.

Kit Includes

» MicroZed board
» Micro USB cable
» 4 GB µSD card
» Xilinx Vivado® WebPACK™ license with Logic Analyzer (device locked)
» Getting Started Card

**To purchase MicroZed,
visit www.em.avnet.com/microzed or www.microzed.org**

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Block Diagram

Block Diagram — XC7Z0xx-CLG400 MicroZed block diagram showing PC4, Clk (33 Mhz), Reset, DDR3 (1 Gbyte DDR3 (x32)), 1 LED/1 button, USB Cont (USB UART), uSD, PHY (USB OTG), PHY (Gbit Enet), Pmod, QSPI (128 Mb Flash) connected to the Processing System (PS) via JTAG, Dedicated I/O (PS_CLK, PS_RST, DDR) and Multiplexed I/O (MIO: PS_GPIO, UART, uSD, USBOTG, ENET/MDIO, <User Select>, QSPI), with Programmable Logic (PL) connecting to MicroHeaders.

Ordering

Part Number	Description	Resale
AES-Z7MB-7Z010-G	MicroZed Evaluation Kit	$199 USD
System-on-Module Parts		
AES-Z7MB-7Z010-SOM-G	MicroZed 7010 SOM - Standard Version	$192 USD (qty = 1-99)*
AES-Z7MB-7Z010-SOMCx-G	MicroZed 7010 SOM - Custom Version	Call for quote
AES-Z7MB-7Z020-SOM-G	MicroZed 7020 SOM - Standard Version	$289 USD (qty = 1-99)*
AES-Z7MB-7Z020-SOMCx-G	MicroZed 7020 SOM - Custom Version	Call for quote

*For quantities greater than 100 call for quote

To purchase MicroZed, visit www.em.avnet.com/microzed or www.microzed.org

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