/ ZUBOARD 1CG

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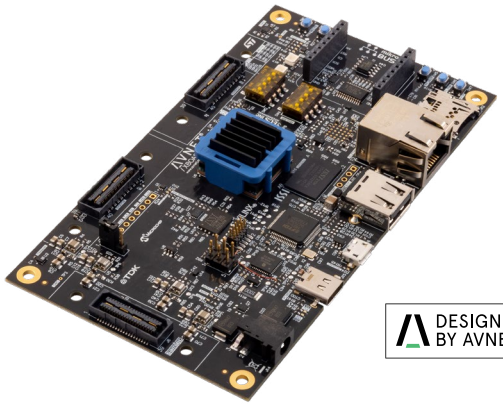
The ZUBoard 1CG provides the flexibility and versatility for engineers to experiment with and learn the AMD-Xilinx Zynq® UltraScale+™ architecture. The affordable ZU1CG device features 81K programmable logic cells with a Dual-core Arm® Cortex®-A53 MPCore™ and Dual-core Arm Cortex-R5F MPCore, as well as cache and on-chip memory. The board also features 1GB of ISSI LPDDR4 with non-volatile boot options in the 256Mb ISSI QSPI Flash or a microSD card slot.

Microchip PHYs enable both 10/100/1000 Ethernet and USB 2.0 Host. A microUSB port provides on-board JTAG/UART access. Microchip oscillators and ECS crystals provide clocking to the ZU1 device, the on-chip real-time clock, JTAG, and communication interfaces. Power the board through USB-C with a Microchip controller and TDK µPOL™ power modules. A combination of slide switches, push buttons, mono- and RGB-LEDs allow user interaction with the board. Both temperature and pressure sensors from ST Micro add environmental data to the system. Additionally, all four ZU+ PS GTR transceivers, 18 PS MIO, and 69 PL I/Os are exposed through Samtec expansion connectors with three SYZYGY® and one Click Board™ sites.

With a Vivado-enabled board definition file and PetaLinux BSP, you will be up and running in no time! Whether you want to explore bare metal, Linux, or Vitis AI accelerators, the ZUBoard 1CG will give you a base foundation to

Features

- AMD/Xilinx ZU+ MPSoC ZU1CG
  - Dual A53 APU and Dual R5 RPU
  - 256KB On-chip Memory
  - 81,900 FPGA Logic Cells
- ISSI 1GB LPDDR4 with on-chip ECC
- Boot from ISSI 256Mb QSPI or microSD card
- PetaLinux environment available for download
- Microchip 10/100/1000 Wired Ethernet PHY and MAC ID EEPROM
- Microchip USB 2.0 PHY
- Microchip USB-C input power control
- Dialog GreenPAK™ on/off controller and power sequencer
- TDK µPOL™ power modules
- On-board JTAG and UART debug interface
- ST Micro Temperature and Pressure Sensors
- Battery-backed Real-Time Clock and FPGA Bitstream Security enabled with ECS and Custom Power
- Expansion with 3 SYZYGY and 1 Click, enabled by Samtec connectors
- User RGB and Monochrome LEDs
- User Slide Switch and Push Button I/O



Kit includes

- ZUBoard 1CG
- Quick-start card
- Free downloadable AMD-Xilinx Vitis and Vivado ML Standard Edition
- Free downloadable PetaLinux BSP and reference designs

Target apps

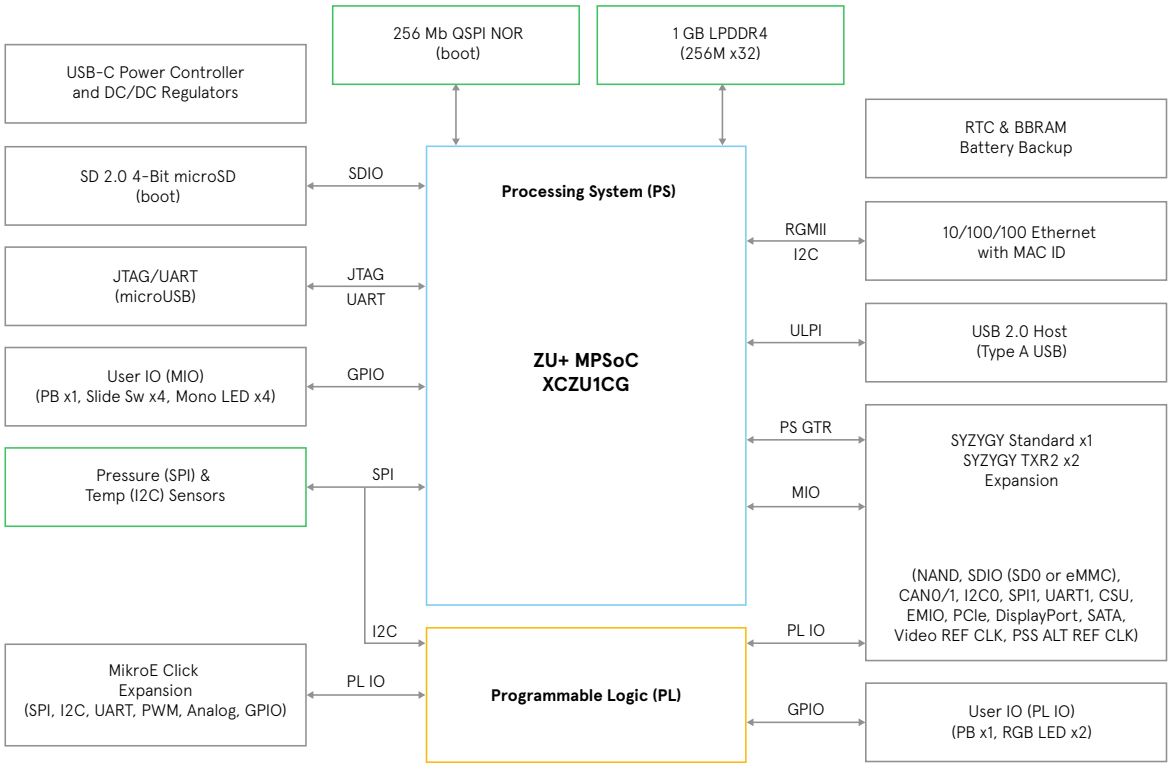
- Artificial intelligence
- Machine learning
- Embedded Vision
- Embedded processing
- Robotics

Markets

- Communications
- Healthcare
- Embedded Vision
- Home & Building Automation
- Industrial
- Lighting
- Security & Surveillance
- IoT Design
- Electronic Component Engineering

For more information visit: avnet.me/zuboard-1cg
To purchase this kit: avnet.me/zuboard-1cg-pdp

Block diagram



Featured manufacturers

AMD XILINX, ISSI, samtec, life.augmented, ECS INC INTERNATIONAL, RENESAS, TDK, MICROCHIP

Parts

Part number	Description	Price and availability
AES-ZUB-1CG-DK-G	ZUBoard 1CG development board with ZU+ MPSoC (ZU1CG)	avnet.me/zuboard-1cg-pdp

Related parts

Part number	Description	Price and availability
S408APGE9-U1000-3	8GB Utility microSD card	avnet.me/Delkin8GB-microSD-pdp
SDSDQAF3-032G-XI	32GB Industrial microSD card	avnet.me/WDC32GB-microSD-pdp
PSA-A45WM-U	USB-C AC/DC Power Supply, NA, 2-Pin, ITE, 1 Output, 45 W, 20 V, 2.25 A	avnet.me/Adaptech-USBCpower-pdp
C06026-00013	USB Cable, Shielded, 3.0A, USB Type C Plug, 1m, 3.3ft, USB 2.0 White	avnet.me/USBC-1m-cable-pdp
AES-SZG-DUALCAM	Dual onsemi MIPI image sensor module	avnet.me/szg-dualcam-pdp

Countries available for purchase:

North America
2211 S 47th Street
Phoenix, Arizona 85034
United States of America
1-800-585-1602

Europe (Silica)
Gruber Str. 60c
85586 Poing
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