

The Ultra96-V2 updates and refreshes the Ultra96 product that was released in 2018. Like Ultra96, the Ultra96-V2 is an Arm-based, Xilinx Zynq UltraScale+™ MPSoC single board computer based on the Linaro 96Boards Consumer Edition (CE) specification. Ultra96-V2 is available in more countries around the world as it has been designed with a certified radio module from Microchip. Additionally, Ultra96-V2 is available in both commercial and industrial temperature grade options. Additional power control and monitoring is possible with the included Infineon Pmics.

Like Ultra96, the Ultra96-V2 boots from the provided Delkin 16 GB microSD card. Engineers have options of connecting to Ultra96-V2 through a Webserver using integrated wireless access point capability or to use the provided Linux Matchbox windows environment which can be viewed on the integrated Mini DisplayPort video output. Multiple application examples and on-board development options are provided as examples.

Ultra96-V2 provides four user-controllable LEDs. Engineers may also interact with the board through the 96Boards-compatible low-speed and high-speed expansion connectors by adding peripheral accessories such as those included in the MikroE Click Mezzanine for 96Boards (available as an accessory).

Micron LPDDR4 memory provides 2 GB of RAM in a 512M x 32 configuration. Wireless options include 802.11b/g/n Wi-Fi and Bluetooth 5 Low Energy. The radio module is Agency Certified in over 75 countries. UARTs are accessible on a header as well as through the expansion connector. JTAG is available through a header. The convenient JTAG/UART Pod (available as an accessory) provides both JTAG and UART connections via USB. I2C is available through the expansion connector.

Two Microchip USB3320 USB 2.0 ULPI Transceivers and one Microchip USB5744 4-Port SS/HS USB Controller Hub enable multiple USB connections. Ultra96-V2 provides one upstream (device) and two downstream (host) USB 3.0 connections. A USB 2.0 downstream (host) interface is provided via the high-speed expansion.

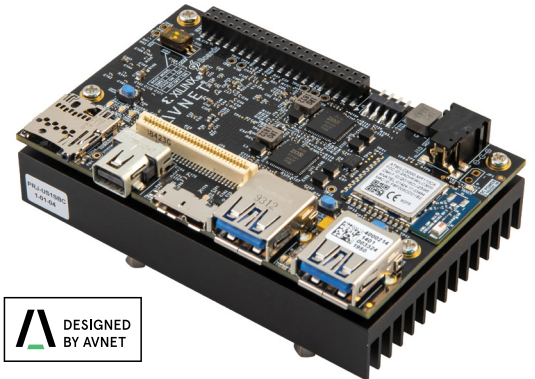
An IDT VersaClock 6E clock generator provides timing for USB 3.0, USB 2.0, DisplayPort, and the Xilinx MPSoC primary clock input.

The integrated Infineon programmable power regulators generate all on-board voltages from an external 12V supply (available as an accessory) as well as providing access to power telemetry through PMBus connectivity.

KIT INCLUDES

- Ultra96-V2 single board computer
- 16 GB microSD card + adapter
- Quick-start instruction card

For more information, visit avnet.me/ultra96-v2



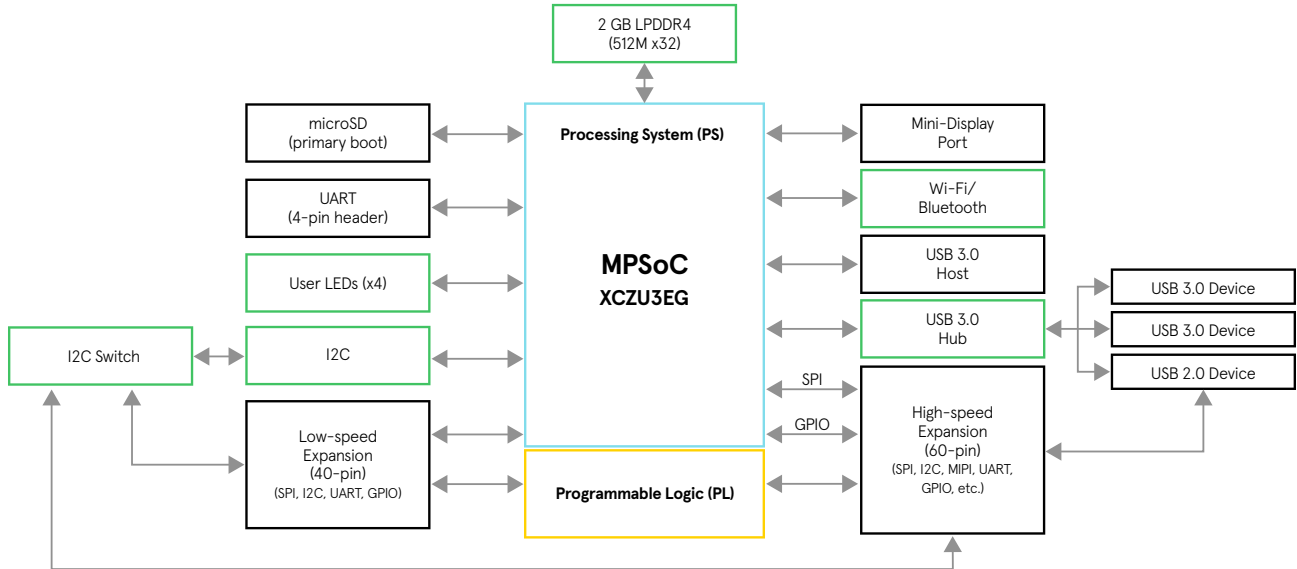
FEATURE LIST

- Xilinx Zynq UltraScale+ MPSoC ZU3EG A484
- Micron 2 GB (512M x32) LPDDR4 Memory
- Delkin 16 GB microSD card + adapter
- Downloadable SD card image for Linux OS with Matchbox desktop environment
- Microchip Wi-Fi / Bluetooth
- IDT VersaClock 6E clock generator
- Infineon high efficiency power management
- Aavid Heatsink
- Mini DisplayPort (MiniDP or mDP)
- 1x USB 3.0 Type Micro-B upstream port
- 2x USB 3.0, 1x USB 2.0 Type A downstream ports
- 40-pin 96Boards Low-speed expansion header
- 60-pin 96Boards High-speed expansion header
- 85mm x 54mm form factor
- Linaro 96Boards Consumer Edition compatible

TARGET APPS

- Artificial Intelligence
- Machine Learning
- Industrial Factory
- IoT/Cloud connectivity for add-on sensors
- Embedded Computing
- Robotics
- Entry level Zynq UltraScale+ MPSoC development environment
- Training, prototyping and proof-of-concept demo platform
- Wireless design and demonstrations using Wi-Fi and Bluetooth

BLOCK DIAGRAM



FEATURED MANUFACTURERS

Amphenol

BOURNS®

C&K

DELKIN DEVICES

dialog
SEMICONDUCTOR

IDT
Integrated Device Technology

infineon

MICROCHIP

Micron®

nexperia

OSRAM
Opto Semiconductors

ON Semiconductor® ON

samtec

ST
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AAVID
THERMAL DIVISION OF BOYD

TE
connectivity

XILINX
ALL PROGRAMMABLE

AVNET
AVID DESIGN SERVICES

PARTS

Part Number	Description	Resale
AES-ULTRA96-V2-G	Ultra96-V2 Zynq UltraScale+ ZU3EG Single Board Computer. Temperature range of 0°C to 60°C	\$249.00
AES-ULTRA96-V2-I-G	Ultra96-V2 supporting Industrial-temperature range of -40°C to +85°C	\$399.00

RELATED PARTS

Part Number	Description	Resale
AES-ACC-U96-4APWR	External 96Boards/Ultra96 compliant power supply kit (12V, 4A, International plugs)	\$19.99
AES-ACC-U96-JTAG	USB-to-JTAG/UART pod for Ultra96	\$39.00
AES-ACC-U96-PHS1	Heatsink to replace bracket/fan on Ultra96	\$10.00
AES-ACC-U96-ME-MEZ	MikroElektronika 96Boards Click Mezzanine	\$16.00
AES-ACC-U96-ME-SK	MikroElektronika 96Boards Click Mezzanine bundle (mezzanine plus 3 Click boards)	\$49.00

Regions Available for Purchase: Americas, Asia, EMEA, Japan

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