/ULTRA96-V2

Like Ultra96, the Ultra96-V2 is an Arm-based, AMD Zynq UltraScale+ ™ MPSoC single board computer based on the Linaro 96Boards Consumer Edition (CE) specification. Ultra96-V2 is available in many 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.

The Ultra96-V2 boots from a micro-SD card (not included). Engineers have options of connecting to Ultra96-V2 through a Webserver using integrated wireless access point capability or to use the provided Linux 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.
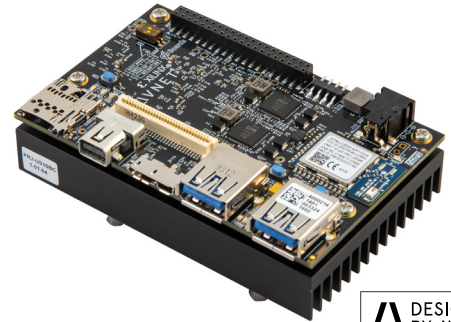
A Renesas VersaClock 6E clock generator provides timing for USB 3.0, USB 2.0, DisplayPort, and the AMD MPSoC primary clock input.

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

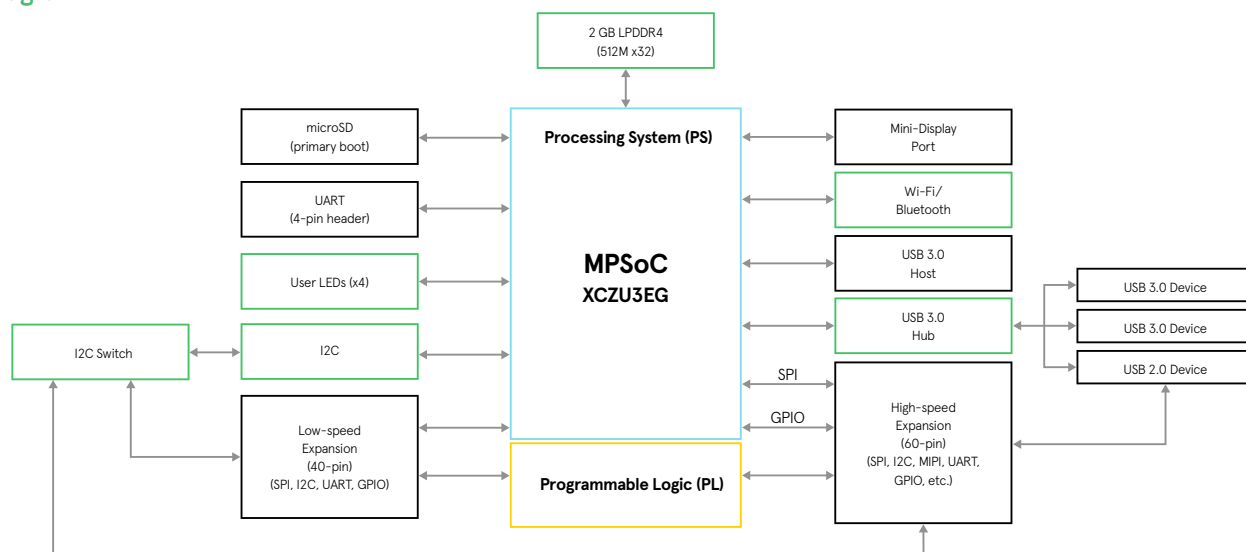- Ultra96-V2 single board computer
- Quick-start instruction card

Features

- AMD Zynq UltraScale+ MPSoC ZU3EG A484
- Micron 2 GB (512M x32) LPDDR4 Memory
- Downloadable SD card image for Linux OS with Matchbox desktop environment
- Microchip Wi-Fi / Bluetooth
- Renesas VersaClock 6E clock generator
- Infineon high efficiency power management
- Boyd 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

For more information, visit: avnet.me/ultra96-v2
To purchase this kit: avnet.me/ultra96-v2-pdp

/ULTRA96 V2

Block diagram

Featured manufacturers

AMD | Amphenol | BOURNS® | BOYD | C&K | DELKIN DEVICES

dialog SEMICONDUCTOR | Infineon | MICROCHIP | Micron | nexperia | onsemi

OSRAM | RENESAS | samtec | ST life.augmented | TE connectivity

Parts

Part number	Description	Price and availability
AES-ULTRA96-V2-G	Ultra96-V2 Zynq UltraScale+ ZU3EG Single Board Computer. Temperature range of 0°C to 60°C	avnet.me/ultra96-v2-pdp
AES-ULTRA96-V2-I-G	Ultra96-V2 supporting Industrial-temperature range of -40°C to +85°C	avnet.me/ultra96-v2-i-pdp

Related parts

Part number	Description	Price and availability
AES-ACC-U96-4APWR	External 96Boards/Ultra96 compliant power supply kit (12V, 4A,International plugs)	avnet.me/96boardpower4a
AES-ACC-U96-JTAG	USB-to-JTAG/UART pod for Ultra96	avnet.me/ultra96jtag
AES-ACC-U96-PHS1	Heatsink to replace bracket/fan on Ultra96	avnet.me/ultra96-heatsink
AES-ACC-U96-ME-MEZ	MikroElektronika 96Boards Click Mezzanine	avnet.me/clickmezzanine
AES-ACC-U96-ME-SK	MikroElektronika 96Boards Click Mezzanine bundle (mezzanine plus 3 Click boards)	avnet.me/click-mezz-bundle
AES-ACC-U96-ONCAM-MEZ	96Boards ON Semiconductor Dual Camera Mezzanine	avnet.me/U96DualCameraMezz-buy

Countries available for purchase: Americas, EMEA, Asia, Japan

Contact information

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

Europe (Silica)
Gruber Str. 60c
85586 Poing
Germany
+49-8121-77702

Europe (EBV)
Im Technologypark 2-8
85586 Poing
Germany
http://ebv.com/contact

Japan
Yebisu Garden Place Tower, 23F
4-20-3 Ebisu, Shibuya-ku
Tokyo 150-6023 Japan
eval-kits-jp@avnet.com
+81-(0)3-5792-8210

Asia
151 Lorong Chuan
#06-03 New Tech Park
Singapore 556741
XilinxAPAC@avnet.com
+65-6580-6000

1.800.332.8638 / avnet.com