



Zynq UltraScale+ MPSoC Kit Selection Guide



Zynq® UltraScale+™ MPSoC Boards & Kits Portfolio

Starter Kits & SOMs

Ultra96-V2

Embedded Linux
Starter Kit



ZU3EG

- Starter kit for embedded Linux users
- Design support from 96boards and Element14 community
- PYNQ support
- AES-ULTRA96-V2-G



UltraZed-EG

Rapid Prototyping
Starter Kit



ZU3EG

- Ideal for rapid prototyping
- Quick time to production with SOM card
- AES-ZU3EG-1-SK-G



UltraZed-EV

Video Application
Starter Kit



ZU7EV

- Ideal for video applications
- Quick time to production with SOM card
- Supports VCU Targeted Reference Design
- AES-ZU7EV-1-SK-G



Full Evaluation Boards

ZCU104

Embedded Vision
Platform



ZU7EV

- Ideal for machine learning and computer vision development
- Leverages reVISION stack for ease of development
- Audio and Video processing
- EK-U1-ZCU104-G



ZCU106

Multimedia &
Connectivity Platform



ZU7EV

- Ideal for high performance video encode/decode
- Supports VCU Targeted Reference Design
- EK-U1-ZCU106-G



ZCU102

General-Purpose
Development



ZU9EG

- Ideal for evaluating a wide range of interfaces
- Highly expandable with multiple design examples
- EK-U1-ZCU102-G



Zynq® UltraScale+™ MPSoC Boards & Kits: Resources

| Feature | Ultra96-V2 | UltraZed-EG | UltraZed-EV | ZCU104 | ZCU106 | ZCU102 | |
|----------------------------------|------------------------------|-----------------|-----------------------|-----------------------|------------------------|-----------------------|-----|
| Featured Silicon | Zynq UltraScale+ MPSoC | ZU3EG | ZU3EG | ZU7EV | ZU7EV | ZU9EG | |
| LUTs | 154k | 154k | 504k | 504k | 504k | 600k | |
| Applications / Reference Designs | TRD | Yes | - | Yes | Yes | Yes | |
| Boot / Code Storage | SD Boot | Yes | Yes | Yes | Yes | Yes | |
| | QSPI Boot | - | Yes | Yes | Yes | Yes | |
| | JTAG Boot | Yes | Yes | Yes | Yes | Yes | |
| | eMMC Boot | - | Yes | Yes | - | - | |
| Communications & Networking | PCIe® | - | Gen2 x1 Endpoint (PS) | Gen2 x1 Rootport (PS) | - | Gen4 x4 Endpoint (PS) | |
| | RJ-45 | - | 1x | 1x | 1x | 1x | |
| | SFP+ | - | - | 2x | - | 2x | |
| | WiFi | Yes | - | - | - | - | |
| | Bluetooth Low Energy (BLE) | Yes | - | - | - | - | |
| | USB | 2x USB3 | USB3 Mini | USB3 Mini | USB3 | 2x USB3 | |
| | USB-UART | 1x | 2x | 2x | 2x | 2x | |
| | USB-JTAG | 1x | 1x | 1x | - | - | |
| | SPI | 1x | - | - | - | 2x | |
| | I2C | 3x | 2x | 2x | 2x | 2x | |
| | CAN | - | - | - | 1x | 2x | |
| | Control & User Interaction | PMBus | Yes | Yes | Yes | Yes | Yes |
| | | SMA | - | - | 4x | - | 6x |
| | | DIP Switches | - | 13x | 4x | 4x | 8x |
| LEDs | | Yes | Yes | Yes | Yes | Yes | |
| Push buttons | | 1x | 8x | 4x | 4x | 6x | |
| Debug & Trace | JTAG PC4 Header | 1x | 1x | 1x | 1x | 1x | |
| | 32-pin Mictor | - | - | - | - | 1x | |
| Expansion Connectors | FMC | - | 1x FMC HPC | 1x FMC HPC | 1x FMC LPC | 2x FMC HPC | |
| | Pmod | - | 13x | 3x | 3x | 2x | |
| | Expansion | 96board LS & HS | Arduino Header | - | - | - | |
| Tools | Vivado® Design Edition | ✓ | - | - | ✓ | ✓ | |
| | WebPACK™ | - | ✓ | ✓ | - | - | |
| Memory | PS LPDDR4 (capacity / width) | 2GB / x32 | - | - | - | 4GB DDR4 x8 | |
| | PS DDR4 (capacity / width) | - | 2GB / x32 | 4GB / x64 | 2GB / x16 | 4GB / x8 | |
| | PL DDR | - | - | 1GB DDR4 x16 | Capable - Not included | 4GB DDR4 x16 | |
| | SD CARD | Yes | Yes | Yes | Yes | Yes | |
| | SATA Connector | - | Yes | Yes | M.2 | Yes | |
| Video | HDMI | - | - | In/out | Gen2 in/out | Gen4 in/out | |
| | DisplayPort | Mini DP | Yes | Yes | Yes | Yes | |
| | Video Codec Unit | - | - | Yes | Yes | Yes | |
| | SDI | - | - | Yes | - | Yes | |

Zynq UltraScale+ MPSoC Evaluation Board

Notes:

1. DDR SODIMM not included with the kit.

XMP458 (v1.0)