

# AUBOARD 15P FPGA DEV BOARD



The AUBoard 15P provides the flexibility and versatility for engineers to experiment with and learn the AMD Artix UltraScale+™ architecture. The feature rich AU15P device features 170K programmable logic cells and 12 GTH multi-gigabit transceivers as well as 576 DSP slices and 7.6 Mb of on-chip RAM. The board also features 2GB of ISSI DDR4 and non-volatile configuration and boot from the 512Mb of ISSI QSPI Flash. A Microchip PHY enables the 10/100 Ethernet interface. A microUSB port provides on-board JTAG/UART access. A Renesas clock generator and ECS crystal oscillators provide clocking to the AU15P device, GTH transceivers, JTAG, and communication interfaces. All 12 GTH transceivers are brought out to SFP+ 10 GbE Ethernet (1), HDMI 2.0 Rx & Tx (3), PCIe end point (4), and FMC I/O expansion (4) interfaces. A combination of slide switches, push buttons, and LEDs (red and RGB) allow user interaction with the board. A temperature sensor from STMicroelectronics adds environmental data to the system. Additionally, 80 FPGA I/Os are exposed through the Samtec connectors for FMC LPC high-speed expansion and one Click Board™ site. The board is powered from a 60W power supply and Renesas and TDK power devices. Whether you want to explore bare metal, RTOS, or Linux software, the AUBoard 15P will give you a solid base foundation to experiment.

## Features

- AMD Artix UltraScale+ 15P FPGA
  - 170K logic cells
  - 12 GTH transceivers
  - 7.6 Mb on-chip memory
  - 576 DSP slices
- ISSI 2GB DDR4 memory
- ISSI 512Mb QSPI Flash memory (configuration and boot)
- Microchip 10/100 MII wired Ethernet PHY and MAC ID EEPROM
- Renesas and TDK power devices
- On-board JTAG and UART debug interface
- STMicroelectronics temperature sensor
- Expansion with 1 Click site and FMC LPC enabled by Samtec connectors
  - 4x GTH transceivers on the FMC
- User RGB and monochrome LEDs
- User slide and push button switches
  - HDMI 2.0 Rx & Tx
  - SFP+ 10Gb Ethernet
  - PCIe Gen. 4 x4 end point interface



## Kit includes

- AUBoard 15P
- Quick start card
- Power supply

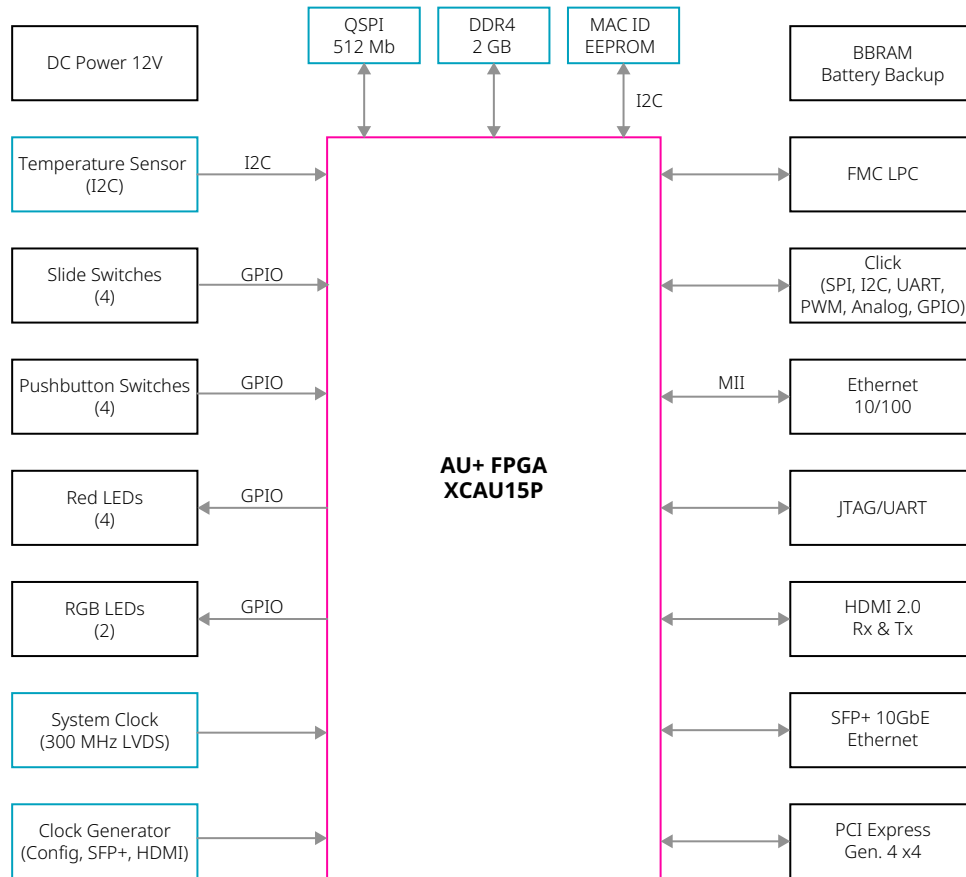
## Target apps

- Embedded vision
- Embedded processing
- Wired communications
- Prototyping & experimentation
- Industrial networking

## Markets

- Healthcare & Medical
- Home & Building Automation
- Industrial

## Block diagram



## Featured manufacturers



## Parts

Part number	Description	For More Informationi
AES-AUB-15P-DK-G	AUBoard 15P FPGA Dev Board with AMD AU+ FPGA	<a href="http://avnet.me/auboard-15p">avnet.me/auboard-15p</a>

## Related parts

Part number	Description	For More Informationi
XCAU15P-2FFVB676E	AMD Artix UltraScale+ FPGA	
TE60A1203N01	AC/DC Power Supply, 12V out, 60W, 2.5 x 5.5mm barrel	

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

## Global Headquarters

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Worldwide Distributor: **Avnet**

Online sales: **Farnell**