



## Alchitry Au FPGA Development Board (Xilinx Artix 7)

DEV-16527 ROHS ✓  
★★★★☆ 6

**\$109.95**

- 1 +

ADD TO CART

Stock availability

DESCRIPTION FEATURES DOCUMENTS EXAMPLES

The Alchitry Au is the "gold" standard for FPGA development boards and it's possibly one of the strongest boards of its type on the market. FPGAs, or Field-Programmable Gate Arrays, are an advanced development board type for engineers and hobbyists alike to experience the next step in programming with electronics. The Au continues the trend of more affordable and increasingly powerful FPGA boards arriving each year. This board is a fantastic starting point into the world of FPGAs and the heart of your next project. Finally, now that this board is built by SparkFun, we added a Qwicc connector for easy I<sup>2</sup>C integration!

The Alchitry Au features a Xilinx Artix 7 XC7A35T-1C FPGA with over 33,000 logic cells and 256MB of DDR3 RAM. The Au offers 102 3.3V logic level IO pins, 20 of which can be switched to 1.8V; Nine differential analog inputs; Eight general purpose LEDs; a 100MHz on-board clock that can be manipulated internally by the FPGA; a USB-C connector to configure and power the board; and a USB to serial interface for data transfer. To make getting started even easier, all Alchitry boards have full Lucid support, a built in library of useful components to use in your project, and a debugger!

By adding stackable expansion boards similar to shields or HATS called "Elements," the Alchitry Au is able to expand its own hardware capabilities by adding prototyping spaces, buttons, LEDs, and more!

*The SparkFun Qwicc Connect System is an ecosystem of I<sup>2</sup>C sensors, actuators, shields and cables that make prototyping faster and less prone to error. All Qwicc-enabled boards use a common 1mm pitch, 4-pin JST connector. This reduces the amount of required PCB space, and polarized connections mean you can't hook it up wrong.*

GET STARTED WITH OUR LEARNING FPGA TUTORIALS

### Tags

ALCHITRY ARTIX 7 AU DEVELOPMENT FPGA GOLD QWICC  
QWICC ADVANCED DEV BOARDS SPARKFUN ORIGINAL STACKABLE USB-C  
XILINX

## Hookup Accessories for Alchitry Au FPGA Development Board (Xilinx Artix 7)

PAGE 1 OF 8

**Alchitry Io Element Board**  
DEV-16525  
**\$16.95**  
★★★★☆ 2

**Alchitry Br Prototype Element Board**  
DEV-16524  
**\$16.50**  
★★★★★ 1

**Alchitry Io Element Board**  
DEV-17278  
**\$26.95**  
★★★★☆ 1

**Board to Board Double Slot Male Connector - 50 pin, 0.5mm**  
PRT-16891  
**\$2.10**

## Similar Items for Alchitry Au FPGA Development Board (Xilinx Artix 7)

PAGE 1 OF 2

**Alchitry Cu FPGA Development Board (Lattice iCE40 HX)**  
DEV-16526  
**\$53.50**  
★★★★★ 3

**Alchitry Au+ FPGA Development Board (Xilinx Artix 7)**  
DEV-17514  
**\$324.95**  
★★★★☆ 3

**SparkFun QuickLogic Thing Plus - EOS S3**  
DEV-17273  
**\$49.50**

**bladeRF x40**  
WRL-14041  
★★★★☆ 6

## Alchitry Au FPGA Development Board (Xilinx Artix 7) Product Help and Resources

TUTORIALS VIDEOS SKILLS NEEDED

**Programming an FPGA**  
JULY 30, 2020

Come look at the basics of working with Field Programmable Gate Arrays.

**How Does an FPGA Work?**  
JULY 30, 2020

The What, How, Why, and When of Field Programmable Gate Arrays, aka FPGAs

**First FPGA Project - Getting Fancy with PWM**  
JULY 30, 2020

An initial project using Alchitry's onboard FPGA to manipulate PWM

**External IO and Metastability**  
JULY 30, 2020

Why external signals can cause metastability and how to use constraint files to manage this

**The ClockClock Project**  
OCTOBER 8, 2020

Tell the time with this fantastic Alchitry project using clocks to make a clock!

## Frequently Bought Together

PAGE 1 OF 25

**SparkFun GPS-RTK-SMA Breakout - ZED-F9P (Qwicc)**  
GPS-16481  
**\$274.95**  
★★★★☆ 13

**SparkFun RTK Facet**  
GPS-19984  
**\$699.95**  
★★★★☆ 8

**MyoWare 2.0 Muscle Sensor**  
DEV-21265  
**\$39.95**

**SparkFun GPS Breakout - NEO-M9N, SMA (Qwicc)**  
GPS-17285  
**\$74.95**  
★★★★☆ 7

## Customer Reviews

★★★★☆ 4.5 out of 5

Based on 6 ratings:

5 star	3
4 star	3
3 star	0
2 star	0
1 star	0

Currently viewing all customer reviews.

0 of 1 found this helpful:

★★★★☆ nice compact board

about 3 years ago by **cx4** ✓verified purchaser

I just started to learn FPGA which is completely different than microcontroller and little hard . but the board is small and connected by usb to make life little easier very good board but io element shield has little buttons it requires strong press to function I would like to change that in future revision.

★★★★★ Neat little board

about 3 years ago by **rtcebank** ✓verified purchaser

I got the AU and CU version of the board I have to say its very well built little FPGA board, I don't have a lot of experience working with FPGA, so when I tried to get into it I hated the traditional FPGA boards out there, but it is small, easy to use and for a beginner the expansion board is enough to get you started.

★★★★★ Great product

about 2 years ago by **Member #1621132** ✓verified purchaser

Easy-ish to use. Examples are mostly for older Mojo board, but translate pretty easily. I added a java lib to more easily create a java-based host application with gradle dependency management to communicate over USB serial via the register interface.

https://github.com/chuckb/RegisterInterface

Advice: buy the Learning FPGAs book by Rajewski and read it while you are waiting on the Vivado tooling to download :-)

★★★★☆ Really love the hardware, LUCID sw and the tutorials!

about 2 years ago by **Member #1642604** ✓verified purchaser

I don't think there is a faster way to learn about FPGAs's

★★★★☆ Happy Alchitry Au user

about 2 years ago by **Member #1657863** ✓verified purchaser

Very good tool, good quality, easy to use (if you already know something about FPGA). you can easily find it to you design.

★★★★★ Love the board so far

about a year ago by **Member #1717144** ✓verified purchaser

I'm teaching an intro to arduino kiddos with a couple of kiddos who were already quite proficient. I set them up with Alchitry AU board and showed them where to get software. They've blown me away already with what they've been able to do as they just learn the basics. Relatively low floor, incredibly high ceiling!

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