UP² (UP Squared) is the world's fastest maker board with high performance and low power consumption features of Intel® Celeron™, Pentium™ and Atom™ Processors (codename Apollo Lake).

The internal GPU is the new Intel Gen 9 HD with 12/18 Execution Units, supporting 4K Codec Decode and Encode for HEVC, H.264 and VP8. Thanks to the Vector Units Image Processing Unit and Precision Timing Management to synchronize CPU with I/O, improved determinism (cache QoS, Intel Virtualization Technology), all the graphic processing is effortless to UP² (UP Squared).

UP² (UP Squared) comes with 2GB/4GB/8GB LPDDR4 and 32GB/64GB/128GB eMMC. A 40-pin GP-bus provides the freedom for makers to build up their module. Additionally, there is a 60-pin EXHAT for embedded applications. This allows for the exploration of all possibilities.

The board supports Windows 10, Windows IoT Core, Ubilinux, Ubuntu, Yocto and Android Marshmallow. It’s really UP to you to decide which operating system is best for your application. Now, all you need is an UP² (UP Squared) to begin your project!

**UP² - Applications**

- **Drones**
- **Education**
- **Robotics**
- **Media Center**
- **Internet of Things**
- **Home Automation**

www.up-board.org / www.up-shop.org / www.up-community.org
**UP-APLC2-A10-0232**

**UP-APLC2-A10-0432**

**UP-APLP4-A10-0432**

**Intel® Celeron™ N3350** (up to 2.4 GHz)

**Intel® Pentium™ N4200** (up to 2.5 GHz)

**Intel® Atom™ E3940** (up to 1.8GHz)

**Graphics**
- Intel® Gen 9 HD, supporting 4K Codec Decode and Encode for HEVC, H.264, VP8

**Video & Audio**
- HDMI 1.4a x 4k @ 30hz + DP 1.2 1x 4k @ 60hz
- I2S audio port
- Camera interface
  - CSI 2-lane + CSI 4-lane

**Display interface**
- eDP

**Power**
- 5V DC-in @ 4A-6A

**Operating humidity**
- 10% ~ 80% RH non-condensing

**Operating Tempature**
- 32-140°F / 0~60°C

**Altera MAX 10 FPGA**
- 2KLE -- Celeron / Pentium
- 4KLE -- ATOM

**Memory**
- 2GB (single channel) LPDDR4
- 4GB/8GB (dual channel) LPDDR4

**Storage Capacity**
- 32GB / 64GB / 128GB eMMC

**USB**
- 3x USB3.0 (Type A) + 1x USB 3.0 OTG (Micro B)
- 2x USB2.0 + 2x UART (TX/RX) debug port (pin header)

**Ethernet**
- 2x Gb Ethernet (full speed) RJ-45

**RTC**
- Yes

**Expansion**
- 40 pin General Purpose bus
- 60 pin EXHAT
- 1x Mini-PCle, M.2 2230, SATA3

**Dimensions**
- 3.37" x 3.54" / 85.60 mm × 90 mm

**Certificate**
- CE/FCC Class A
- RoHS complaint
- REACH

**UP-APLP4-A10-0864**

**UP-APLA4-A10-0432**

**Intel® Pentium™ N4200**
- 8 GB + 64 GB eMMC

**Intel® Atom™ E3940**
- 4 GB + 32 GB eMMC