UP is a credit card size board with high performance and low power consumption features of the latest tablet technology: the Intel® Atom™ x5 Z8350 Processors (codename Cherry Trail) 64 bits up to 1.92GHz. The internal GPU is the new Intel Gen 8 HD 400 with 12 Execution Units up to 500MHz to deliver extremely high 3D graphic performance. UP is equipped with 1GB/2GB/4GB DDR3L RAM and 16GB/32GB/64GB eMMC.

UP has 40-pin General Purpose bus which provides the freedom to makers to build up their shield. There are more interfaces available, such as 4x port USB2.0 on connectors, 2x port USB2.0 + 1x UART on header, 1x USB 3.0 OTG, 1x Gbit Ethernet (full speed), 1x DSI/eDP port, 1x Camera (MIPI-CSI), 1x HDMI, RTC.

When it comes to security, UP has Intel security features needed for professional IoT applications such as Intel AES New Instructions and Intel Identity Protection Technology.

It's UP to you to choose which operation system is best for your application. The CPU is supported by Android 5.0 Lollipop, Microsoft Windows 10 and we support and enable Linux, through our UP Community.

UP has a standard industrial PC operating temperature range of 32-104°F/0-60°C, which makes it flexible for many applications.

UP is perfect for professional makers.

UP - Applications

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

www.up-board.org / www.up-shop.org / www.up-community.org
SOC
Intel® Atom™ x5-Z8350 Processor (2M Cache, 1.44 GHz up to 1.92 GHz) CPU with 64 bit architecture; Quad Core

Graphics
Intel® HD 400 Graphics, 12 EU GEN 8, up to 500MHz Support DX11.1/12, Open GL4.4.2, Open CL1.2 OGL ES3.0, H.264, HEVC(decod), VP8

Video & Audio
HDMI 1.4b
I2S audio port

Camera interface
CSI (4 Mega pixel)

USB 2.0
4x USB2.0
2x USB 2.0 pin header (10 pins in total)

RTC
Yes

Power
5V DC-in @ 3A  5.5/2.1mm jack

Dimensions
3.37" x 2.22" / 85.60 mm × 56.5 mm

Operating humidity
18% ~ 80%RH non-condensing

Memory
1GB / 2GB / 4GB DDR3L-1600

Storage Capacity
16GB eMMC / 32 GB / 64 GB eMMC

Display interface
DSI / eDP

Ethernet
1x Gb Ethernet (full speed) RJ-45

USB 3.0
1x USB3.0 OTG

Expansion
40 pin General Purpose bus, supported by Altera Max V. ADC 8-bit@188Kos

Compatible Operating system
Microsoft Windows 10 full version
Linux (ubilinux, Ubuntu, Yocto) • Android Lollipop • Brillo

Operating Temperature
32-140°F / 0~60°C

Certificate
CE/FCC Class A, RoHS complaint
Microsoft Azure certified

Part number:
- UP-CHT01-A10-0116
- UP-CHT01-A10-0216
- UP-CHT01-A10-0416
- UP-CHT01-A10-0432
- UP-CHT01-A10-0464

Included accessories
- Linux OS stick

Optional accessories
- Heatsink/RTC battery
- Power adapter
- USB3.0 OTG cable
- HDMI cable

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