UP is a credit card size board with the 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 6 Marshmallow, Microsoft Windows 10 and we support and enable Linux, through our UP Community.

UP has a standard industrial PC operating temperature range of 32-140°F/0-60°C, which makes it flexible for many applications.

UP is perfect for professional makers.

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 DX*11.1/12, Open GL 4.2; Open CL*1.2 OGL

**Video & Audio**
HDMI 1.4b
I2S audio port

**Camera interface**
CSI (4 Mega pixel)

**USB 2.0**
4x USB 2.0
2x USB 2.0 pin header (10 pins in total)

**RTC**
Yes

**Power**
5V DC-in @ 4A  5.5/2.1mm jack

**Dimensions**
3.37” x 2.22” / 85.60 mm × 56.5 mm

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

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**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@188kios

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

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

**Certificate**
CE/FCC Class A, RoHS compliant
Microsoft Azure certified, REACH

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**Included accessories**
- Pinout

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

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**Part number :**
UP-CHT01-A10-0116
UP-CHT01-A10-0216
UP-CHT01-A10-0232
UP-CHT01-A10-0432
UP-CHT01-A10-0464

<table>
<thead>
<tr>
<th>1GB RAM + 16GB eMMC</th>
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<th>1GB RAM + 64GB eMMC</th>
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</tbody>
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**Cherry Trail - T3**
Intel Atom
X5-Z8350
17 mm x 17 mm

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**Memory**
1600 MHz

**Graphics**
Intel® HD 400 Graphics,12 EU GEN 8, up to 500MHz Support DX*11.1/12, Open GL 4.2; Open CL*1.2 OGL

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**Power On**
Reset
Power LED
HDD LED
JTAG
XDP/ITAG IDNI