UP Core is a miniature 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 Core is equipped with 1GB/2GB/4GB DDR3L RAM and 16GB/32GB/64GB eMMC. With 100-pin docking connector, UP Core provides the freedom to makers to build up their carrier board. There are more interfaces available, such as 2x port USB2.0 + 1x UART on header, 1x USB 3.0 host, WiFi, Bluetooth 1x DSI/eDP port, 2x Camera (MIPI-CSI), 1x HDMI, RTC.

When it comes to security, UP Core has Intel security features needed for professional IoT applications such Intel AES New Instructions and Intel IdentityProtection 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 Core has a standard industrial PC operating temperature range of 32-140° F / 0~60°C, which makes it flexible for many applications.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UP Core - Specifications</strong></td>
<td></td>
</tr>
<tr>
<td><strong>SOC</strong></td>
<td>Intel® Atom™ x5-Z8350 (2M Cache, up to 1.92 GHz)</td>
</tr>
<tr>
<td><strong>Graphics</strong></td>
<td>Intel® HD 400 Graphics</td>
</tr>
<tr>
<td><strong>Memory</strong></td>
<td>2GB / 4GB onboard DDR3L-1600</td>
</tr>
<tr>
<td><strong>Storage Capacity</strong></td>
<td>16GB / 32GB / 64 GB eMMC</td>
</tr>
<tr>
<td><strong>Video &amp; Audio</strong></td>
<td>1x HDMI, 1x Full eDP, Audio via HDMI and i2S (from Docking)</td>
</tr>
<tr>
<td><strong>Camera interface</strong></td>
<td>1x MIPI-CSI 2 lane, 1x MIPI-CSI 4 lane</td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td>5V DC-in @ 4A 5.5/2.1mm jack</td>
</tr>
<tr>
<td><strong>Operating humidity</strong></td>
<td>10%~80%RH non-condensing</td>
</tr>
<tr>
<td><strong>Operating Temperature</strong></td>
<td>32-140° F / 0-60°C</td>
</tr>
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<tr>
<td><strong>USB</strong></td>
<td>1x USB 3.0 Host, 2x USB 2.0 pin header</td>
</tr>
<tr>
<td><strong>WiFi / BT</strong></td>
<td>WiFi 802.11 b/g/n @ 2.4 GHz, Bluetooth 4.0 (BLE)</td>
</tr>
<tr>
<td><strong>Expansion</strong></td>
<td>Docking Connector 100 pin</td>
</tr>
<tr>
<td><strong>Compatible Operating system</strong></td>
<td>Microsoft Windows 10 (full), Linux (ubilinux, Ubuntu, Yocto), Android Marshmallow</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>56.50 mm × 66 mm</td>
</tr>
<tr>
<td><strong>Certificate</strong></td>
<td>CE/FCC Class A, RoHS complaint, REACH</td>
</tr>
</tbody>
</table>

www.up-board.org / www.up-shop.org / www.up-community.org
Cherry Trail-T3
17 x 17 mm
Intel Atom X5-8350

HDMI Type B
HDMI 1.4P - 4K x 2K

USB HSIC x 2

PCI-E Gen2 x1

PMC Signals
HDMI SMBUS
Power button
HPD
Reset Button
l2C, SPI, PWM
i2S, UART1, GPIO

eMMC
32 GB / 64 GB

AP617A
WiFi & BT

10 pin connector

USB Type A

F/W Update connector

Flash Rom

Fan Connector

Switch Button

Power Switch

DC lock

5V 4A

VSYS

SYS VR

5V 3A

Power from IO board

Signals

Dock Conn Header

PMI 1.0mm header

AXK6S00547YG

1x 100 pin

FPC/FFC Connector

1x 40 pin

Dock Conn

Powerbutton
Reset button

FPC Connector
1x 21 pin

FPC Connector
1x 33 pin

FPC/FC Connector
1x 40 pin

Dock Conn Socket

PMI 5.0mm Socket
AXK6S00547YG

1x 100 pin

Optional carrier board

Part number:
Coming soon

www.up-board.org/ www.up-shop.org /www.up-community.org