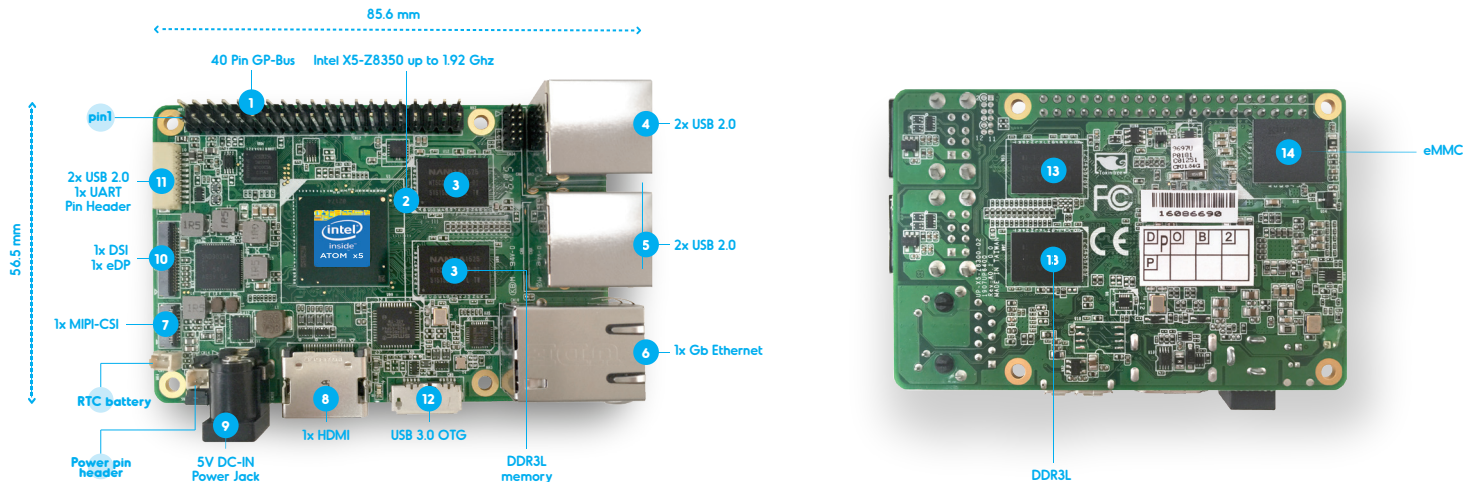




bridge
the gap

specification



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 **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.

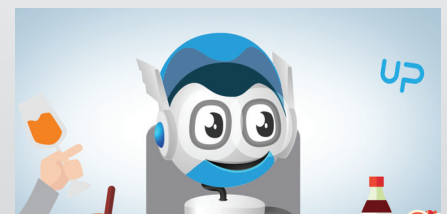
UP - Applications



Drones



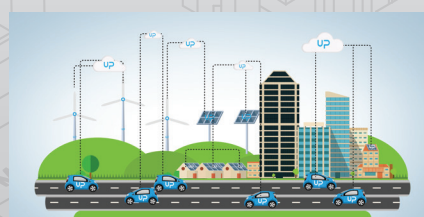
Education



Robotics





















Media Center

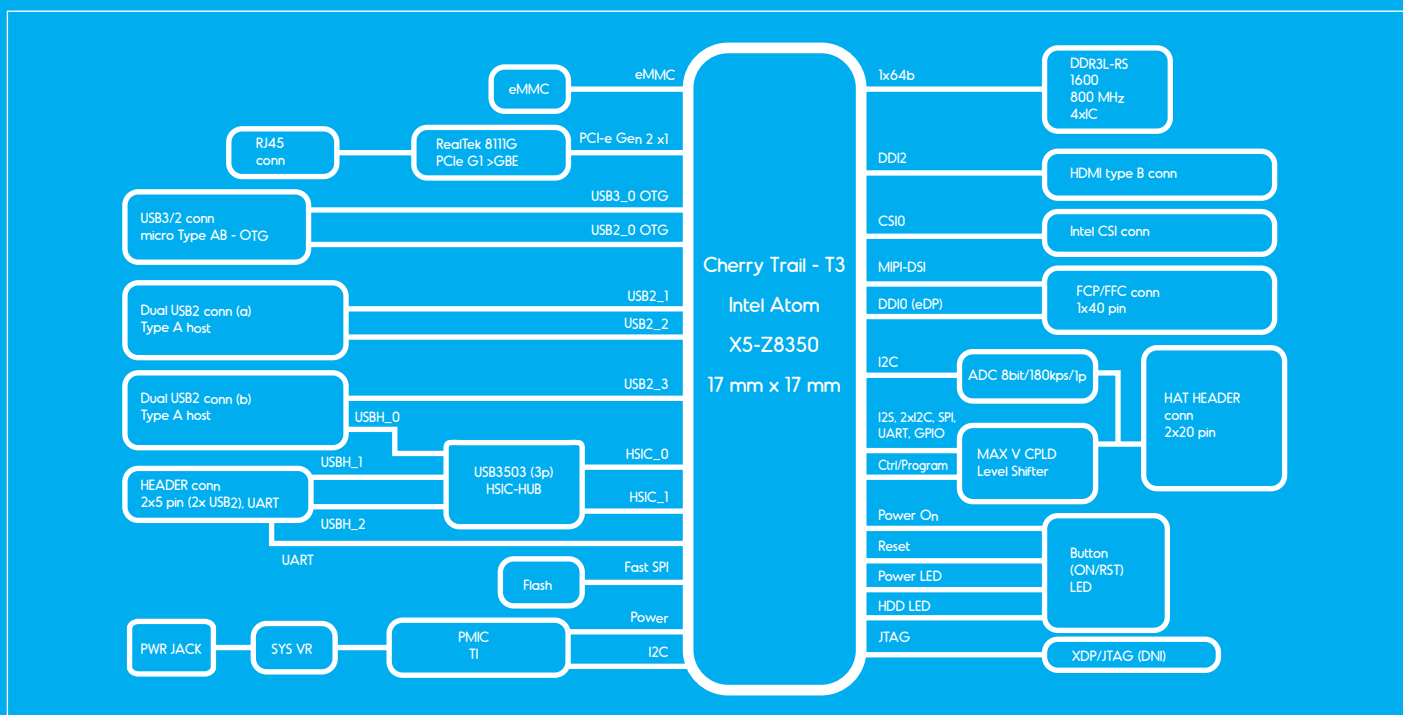


Internet of Things



Home Automation

        	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 ES3.0, H.264, HEVC(decode), VP8 Video & Audio HDMI 1.4b I2S audio port Camera interface CSI (4 Mega pixel) USB 2.0 4x UB2.0 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 x 56.5 mm Operating humidity 10%~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 UB3.0 OTG Expansion 40 pin General Purpose bus, supported by Altera Max V. ADC 8-bit@188ksos Compatible Operating system Microsoft Windows 10 full version Linux (ublinux, Ubuntu, Yocto) • Android Marshmallow Operating Temperature 32-140°F / 0~60°C Certificate CE/FCC Class A, RoHS complaint Microsoft Azure certified, REACH
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UP - Pinout

2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39
1 3V3				2 5V				3 GPIO0/I2C_SDA				4 5V				5 GPIO1/I2C1_SCL			
6 Ground				7 GPIO2/ADC-input				8 GPIO15/UART_TX				9 Ground				10 GPIO16/UART_RX			
11 GPIO3				12 GPIO17/I2S_CLK				13 GPIO4				14 Ground				15 GPIO5			
16 GPIO18				17 3V3				18 GPIO19				19 GPIO6/SPI_MOSI				20 Ground			
21 GPIO7/SPI_MISO				22 GPIO20				23 GPIO8/SPI_CLK				24 GPIO21/SPI_CS0N				25 Ground			
26 GPIO22/SPI_CS1N				27 GPIO9/I2C0_SDA				28 GPIO23/I2C0_SCL				29 GPIO10				30 Ground			
31 GPIO11				32 GPIO24/PWM0				33 GPIO12/PWM1				34 Ground				35 GPIO13/I2S_FRM			
36 GPIO25				37 GPIO14				38 GPIO26/I2S_DATAIN				39 Ground				40 GPIO27/I2S_DATAOUT			

Part number :
 UP-CHT01-A10-0116
 UP-CHT01-A10-0216
 UP-CHT01-A10-0232

1GB RAM+16GB eMMC
 2GB RAM+16GB eMMC
 2GB RAM+32GB eMMC

UP-CHT01-A10-0432
 UP-CHT01-A10-0464

4GB RAM+32GB eMMC
 4GB RAM+64GB eMMC

Included accessories
 Optional accessories

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[AAEON:](#)

[UP-CHT01-A10-0432](#) [UP-CHT01-A10-0232](#) [UP-CHT01-A10-0216](#) [UP-CHT01-A10-0464](#) [UP-CHT01-A10-0116](#)