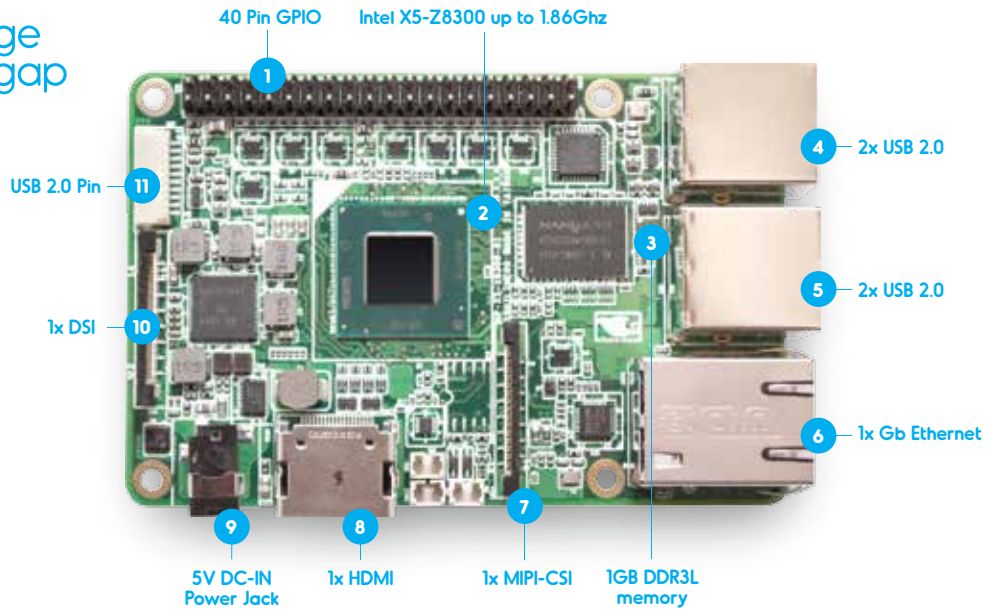




specification

bridge
the gap



UP is a credit card size board with the high performance and low power consumption features of the latest tablet technology: the **Intel Cherry Trail Atom Quad Core x5-Z8300 64 bits up to 1.84GHz**. The internal **GPU is the new Intel Gen 8 HD with 12 Execution Units up to 500MHz** to deliver extremely high **3D graphic** performance. UP is equipped with **1GB DDR3L RAM** and **16 GB eMMC**.

UP has **40 GPIO pins** which provides the freedom to makers to build up their shield. There are more interfaces available, such as **5x USB 2.0, 1x USB 3.0 OTG, 1x Gbit Ethernet, 1x DSI 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 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 Celsius**, which makes it flexible for many applications.

UP is perfect for professional makers.

UP - Applications



Drones



Education



Robotics



Media Center



Internet of Things

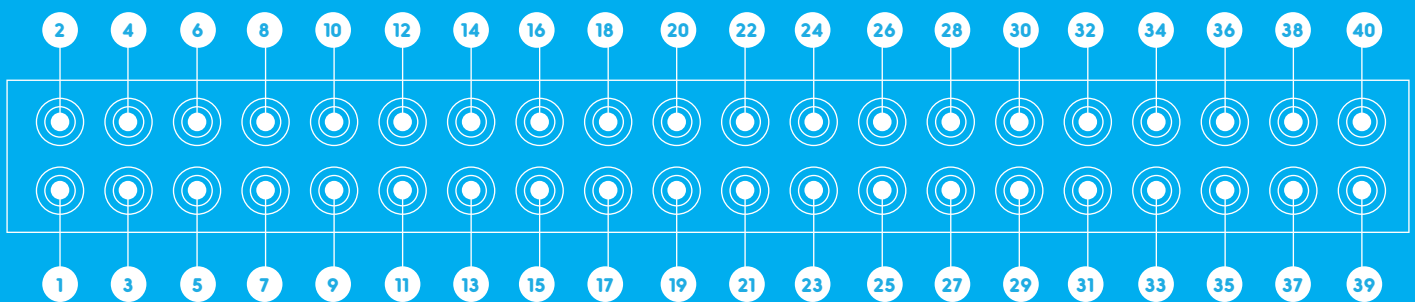


Home Automation



	SOC Intel® Atom™ x5-Z8300 Processor (2M Cache, up to 1.84 GHz) CPU with 64 bit architecture; Quad Core CPU		Memory 1GB DDR3L-1600
	Graphics Intel® HD 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		Storage Capacity 16GB eMMC /32 GB eMMC
	Video & Audio Full HDMI		Display interface DSI
	Camera interface CSI (4 Mega pixel)		Ethernet 1x Gb Ethernet RJ-45
	USB 2.0 4x USB2.0 1x USB 2.0 pin header (10 pins in total)		USB 3.0 1 x USB 3.0 OTG (also can be converted to USB 2.0)
	RTC Yes		Expansion 40 GPIO pins
	Power 5V DC-in		Operating system Microsoft Windows 10 • Linux • Android <i>(compatible, not including in package)</i>
	Dimensions 85.60 mm × 56.5 mm		Operating Temperature 0-60°C
	Operating Humidity 10%~80%RH non-condensing		Certificate CE/FCC Class A, RoHS compliant

UP - Pinout



1 3V3 Power	2 5V Power	3 GPIO2-SDA1 I2C	4 5V Power	5 GPIO3-SLC1 I2C
6 Ground	7 GPIO4	8 GPIO14-UART0_TXD	9 Ground	10 GPIO15-UART0_RXD
11 GPIO17	12 GPIO18 - PCM_CLK	13 GPIO27	14 Ground	15 GPIO22
16 GPIO23	17 3V3 Power	18 GPIO24	19 GPIO10-SPI0_MOSI	20 Ground
21 GPIO9-SPI0_MISO	22 GPIO25	23 GPIO11-SPI0_SCLK	24 GPIO8-SPI0_CE0-N	25 Ground
26 GPIO7-SPI0_CE1_N	27 ID_SD-I2C ID EEPROM	28 ID_SC-I2C ID EEPROM	29 GPIO5	30 Ground
31 GPIO6	32 GPIO12	33 GPIO13	34 Ground	35 GPIO19
36 GPIO16	37 GPIO26	38 GPIO20	39 Ground	40 GPIO21

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