

UP Core Plus is a credit card-sized board with high performance and low power consumption which features of the latest the Intel® Atom™ x5 / x7 / Celeron / Pentium processor 64 bits up to 2.5 GHz.

The internal GPU is the latest Intel Gen 9 HD 500 with up to 18 Execution Units up to 650MHz to deliver extremely high 3D graphic performance.

UP Core Plus is equipped with 2GB/4GB/8GB DDR4L RAM at 2400 MHz and 32GB/64GB/128 eMMC. On board there are a wide variety of features and I/O including USB 3.0 Host + OTG, UART on USB header, WiFi, Bluetooth, DSI, MIPI-CSI, Display Port 4K and more!

On the bottom of the board 2 x 100-pin high speed docking connectors provide the freedom to users to design their carrier board. The pin definition of 100-pin connector A is fully compatible with UP Core.

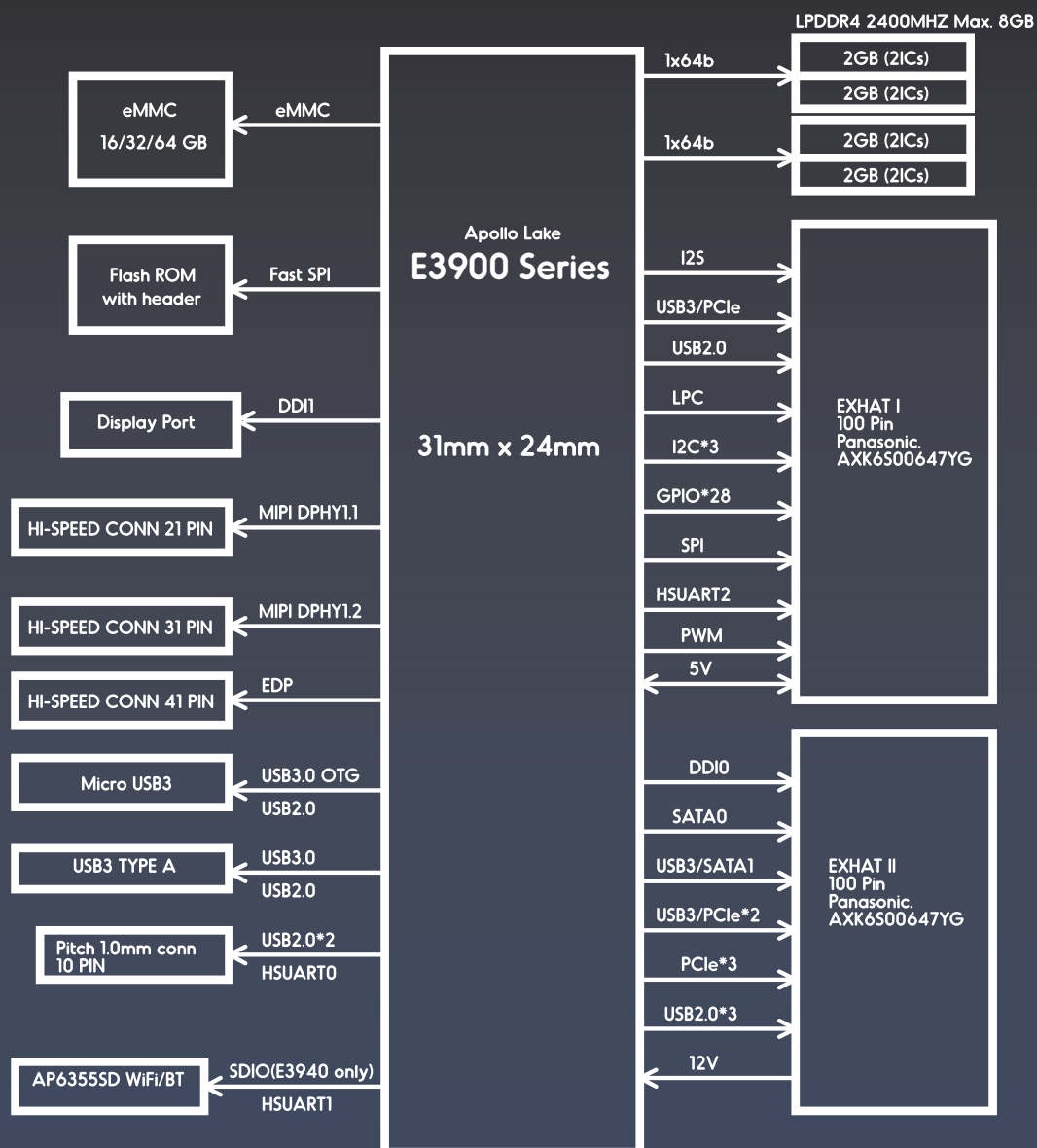
It's UP to you to choose which operation system is best for your application. The CPU is supported by Microsoft Windows 10 Professional and IoT Core and you can download Linux Ubuntu, Linux Debian, Linux Yocto, Android 6.0 through our UP Community.

UP Core Plus is available at industrial temperature range which makes it perfect for industrial application in harsh environment.

## UP Core Plus - Specifications

	<p><b>SOC</b> Intel® Atom™ x5-E3930 (2M Cache, up to 1.8 GHz) Intel® Atom™ x5-E3940 (2M Cache, up to 2.00 GHz) Intel® Atom™ x7-E3950 (2M Cache, up to 1.8 GHz)</p> <p><b>Graphics</b> Intel® HD 500 Graphics / x5-3900 Series Intel® HD 505 Graphics / x7-3900 Series</p> <p><b>Memory</b> 2GB / 4GB / 8GB onboard LPDDR4</p> <p><b>Storage Capacity</b> 32GB / 64 GB / 128 GB eMMC</p> <p><b>Video &amp; Audio</b> 1x DP 4K 60Hz 1x Full eDP Audio via DP and I2S (from Docking)</p> <p><b>Camera interface</b> 1x MIPI-CSI 2 lane 1x MIPI-CSI 4 lane</p> <p><b>Operating humidity</b> 10%~80%RH non-condensing</p> <p><b>Operating Temperature</b> 32-140°F / 0-60°C</p>	<p><b>USB</b> 1x USB 3.0 Host 1x USB 3.0 OTG 2x USB 2.0 pin header</p> <p><b>WiFi / BT</b> WiFi 802.11 AC 2T2R Bluetooth 4.2 (BLE)</p> <p><b>Expansion</b> 2x Docking Connector 100 pin including: USB 2.0, USB 3.0, 6-PCI-E Lane, SATA, I2C, I2S, SPI, PWM, LPC, SDIO, HSUART, ISH, GPIO</p> <p><b>Compatible Operating system</b> Microsoft Windows 10 Professional, Microsoft Windows 10, IoT Core, Linux (Ubuntu, Yocto), Android 7.0</p> <p><b>Power</b> 12V DC-in @ 4A -6A 5.5/2.1mm jack</p> <p><b>Dimensions</b> 56 mm × 90 mm</p> <p><b>Certificate</b> CE/FCC Class B, RED, RoHS compliant, REACH</p>
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# block diagram



# carrier boards



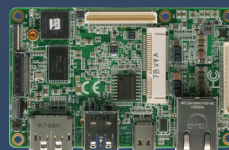
Low speed  
carrier board



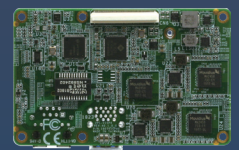
High speed  
carrier board  
(limited support)



Net Plus



AI Plus



Vision Plus X-

notice: All specifications, features and data are subject to change.

For more information, pin layout and advanced carrier compatibility overview, please visit our website

Part number :

UPC-PLUSX5D-A20-0232  
UPC-PLUSX5Q-A20-0464  
UPC-PLUSX5D-A10-0232

Atom® x5-E3930, 2GB RAM & 32GB eMMC  
Atom® x5-E3940, 4GB RAM & 64GB eMMC  
Atom® x5-E3930 2GB RAM & 32GB eMMC

UPC-PLUSX7-A20-0864  
UPC-PLUSX7-A20-08128

Atom® x7-E3950, 8GB RAM & 64GB eMMC  
Atom® x7-E3950, 8GB RAM & 128GB eMMC