

UP AI EDGE FAMILY



UP Core Plus

High performance mini SBC

UP core
PLUS
bridge the gap

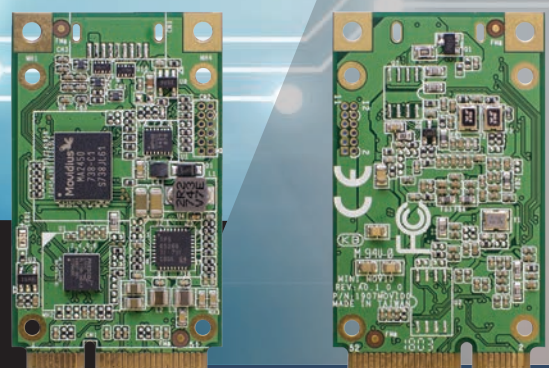
SOC Intel® Atom™ x5/x7 / Celeron® / Pentium® 64-bit processor
Graphics Intel® HD 500 Graphics
Memory 2GB / 4GB / 8GB onboard DDR4L-2400
Storage Capacity 32GB / 64 GB / 128 GB eMMC
Video & Audio 1x DP 4K 60Hz, 1x Full eDP, Audio via DP and I2S
Camera interface 1x MIPI-CSI 2 lane + 1x MIPI-CSI 4 lane
Operating humidity 10%~80%RH non-condensing
Operating Temperature 32-140°F / 0~60°C - optional -40-185°F / -40~85°C
USB 1x USB 3.0 Host + 1x USB 3.0 OTG + 2x USB 2.0 pin header
WiFi / BT WiFi 802.11 AC 2T2R + Bluetooth 4.2 (BLE)
Power 12V DC-in @ 4A -6A 5.5/2.1mm jack
Dimensions 56.50 mm × 90 mm
Certificate CE/FCC Class A, RED, RoHS complaint, REACH

Expansion
 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

Compatible Operating systems
 Microsoft Windows 10 Professional, Microsoft Windows 10, IoT Core, Linux (Ubuntu, Yocto), Android Marshmallow

AI Core

mPCI-E AI Accelerator



SOC Intel® Movidius™ Myriad™ 2 2450
Supported Frameworks TensorFlow, Caffe
Form Factor Mini PCI-Express
Dimensions 51 x 30 mm
System requirements x86_64 computer running Ubuntu 16.04
 Available mPCI-E slot
 1GB RAM
 4GB free storage space

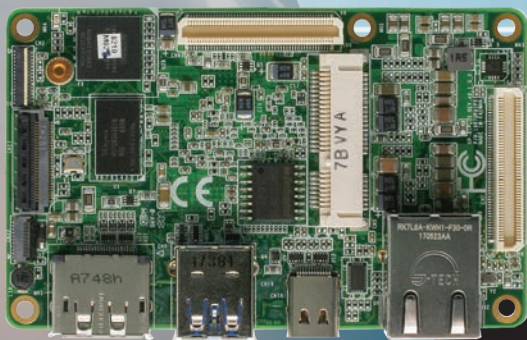
UP AI
CORE
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Net Plus
LAN Expansion board



Ethernet EEPROM Internal I/O
 4x Intel I211-AT (optional with I210-IT for wide temperature)
 1x EEPROM on I2C0 4Kb with Jumper for A0~A2 address
 1x mPCI-e / Mini card, mSATA
 1x uSIM Card Reader
 1x SATA (vertical)
 2x Docking connector to UP Core Plus main board
 1x Docking connector on bottom side for Expansion
 4x RJ45 Gigabit Ethernet port
 1x USB3.0
 1x Power LED

Rear I/O
 Operating temps 0~60°C (optional -40~85°C)
 Operating humidity 10%~80%RH non-condensing
 Certification CE/FCC Class B
 Dimensions 90 mm x 56.5 mm



AI Plus
AI Accelerator

FPGA Intel® Cyclone™ 10GX F672 (105KLE, 150KLE, 220KLE)
 MAX 10 V36 PWR Sequence
 Memory Onboard DDR3 Single Channel x32 Max 2GB
 Storage 1x SPI-Flash 512 Mb
 Ethernet 1x Gigabit Ethernet (Realtek 8111G) to main board,
 Video input 1x HDMI IN, 1x DP IN, 1x LVDS IN
 1x MIPI-CSI (4 lanes)

USB 1x USB 3.0 Type A to main board, 1x USB 3.1 Type C
 Expansion Slot 1x Mini card (full-size) SATA-PCI-e coloy
 Docking 2x Docking connector 100-pin to UP Core Plus main board
 Power 12V DC
 Form Factor 90 mm x 56.5 mm
 Operating temps 0~60°C
 Operating humidity 10%~90%RH non-condensing
 Certification CE/FCC Class B
 OS Support* Windows 10, Linux Ubuntu, Yocto

*depending op FPGA IP drivers