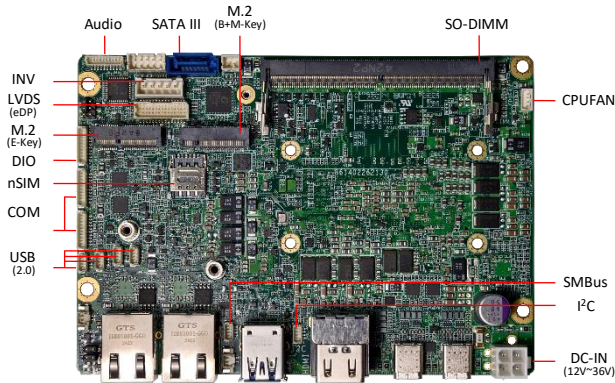


# AECX-ARLO/MTLO

Intel® Core™ Ultra 7 / Ultra 5 Series SoC based 3.5" Embedded Board with 2 HDMI / 2 USB-C (with DP) / LVDS, SATA III, 2 COM, 2 UART, 8 USB, 2 LAN.



## Key Features

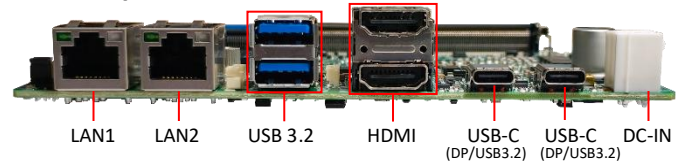
- Intel® Meteor Lake -U/H & Arrow Lake -U/H Core™ Ultra series SoC on board
- One 262-pin SO-DIMM up to 48GB DDR5 6400MT/s SDRAM
- Multi-Display : 2 HDMI / LVDS / 2 USB-C (DP interface)
- Two Intel® 2.5 Gigabit Ethernet ports
- 1 M.2 B+M-key 3042 (WWAN w/ nano-SIM) / 2242 (SSD), 1 M.2 E-Key 2230 (WiFi/BT), 1 M.2 M-key 2280 (NVMe) expansion slots
- 1 SATA III, 2 USB 3.2 and 2 USB-C, 4 USB 2.0 ports
- Supports 4K/2K Resolution Display
- DC-IN 12V ~ 36V

## Product Specification

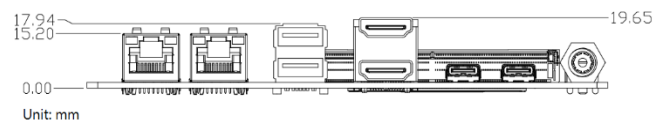
System Processor/Chipset	
Processor	Intel® Core™ Ultra 100H/U and 200H/U processor series on board Core™ Ultra 7 155H (1.4GHz/4.8GHz, 6P+8E, 128EU, 28W <sub>base</sub> ) Core™ Ultra 5 125H (1.2GHz/4.5GHz, 4P+8E, 112EU, 28W <sub>base</sub> ) Core™ Ultra 7 155U (1.7GHz/4.8GHz, 2P+8E, 64EU, 15W <sub>base</sub> ) Core™ Ultra 5 125U (1.3GHz/4.3GHz, 2P+8E, 64EU, 15W <sub>base</sub> ) Core™ Ultra 7 255H (1.2GHz/5.1GHz, 6P+8E, 128EU, 28W <sub>base</sub> ) Core™ Ultra 5 225H (1.2GHz/4.9GHz, 4P+8E, 112EU, 28W <sub>base</sub> ) Core™ Ultra 7 255U (1.8GHz/5.2GHz, 2P+8E, 64EU, 15W <sub>base</sub> ) Core™ Ultra 5 225U (1.2GHz/4.8GHz, 2P+8E, 64EU, 15W <sub>base</sub> )
Chipset	Intel® Meteor Lake -U/H & Arrow Lake -U/H SoC integrated
BIOS	AMI® UEFI Flash ROM
Memory	
Technology	DDR5 SDRAM up to 6400 MT/s
Max. capacity	Up to 48GB
Socket	1 x 262-pin SO-DIMM
Display	
Graphics	Intel® Arc™ (-H) or Xe (-U) LPG+ Graphics integrated
Display interface	2 x HDMI v1.4b 1 x LVDS Dual-channel 18/24-bit (co-lay eDP, optional) 1 x eDP v1.4b (optional) 2 x USB-C (with DP v2.1 interface)
Multi-display	Up to four independent displays (LVDS/HDMI/USB-C)
Resolution	USB-C (DP) : Up to 5120 x 3200 @ 60Hz (max) HDMI : Up to 3840 x 2160 @ 30Hz (max) LVDS : Up to 1920 x 1200 @ 60Hz (max) eDP : Up to 3840 x 2160 @ 60Hz (max)
Ethernet	
Interface	10/100/1000/2500 Mbps
Controller	Intel® I226 2.5GbE
Connector	2 x RJ45 (rear I/O)
Audio	
Interface	Line-in, Line-out, Mic-in
CODEC	Realtek® ALC888S HD Audio Codec
Expansion Slot	
M.2	1 x M.2 B+M-Key 3042 (WWAN, w/ nSIM) / 2242 (SSD) 1 x M.2 E-Key 2230 (PCIe x1 + USB 2.0, WiFi CNVi, BT) 1 x M.2 M-Key 2280 (PCIe x4, NVMe SSD)
Serial ATA	
Max. Data Rate	6.0GB/s
Port	1 x SATA III
I/O	
Audio	Line-in, Line-out, Mic-in
COM	2 x RS-232/422/485 (8-wire)
UART	2 x UART (8-wire)
FAN	1 x CPUFAN 4-pin PWM
DIO/GPIO	1 x 8-bit Programmable purpose input output I/O
I²C	1 x I²C
SMBus	1 x SMBus
USB	2 x USB 3.2 Type-A (rear I/O) 2 x USB 3.2 Type-C (rear I/O) 4 x USB 2.0

Power Requirement	
Power connector	ATX 2x2-pin for Standard, DC-Jack $\phi$ 2.5mm screw type (optional)
Power type	DC-IN 12V ~ 36V
Power mode	AT / ATX (by jumper selection)
Watchdog Timer	
Interval	Programmable 1 ~ 255 sec/min
Output	System reset
Environment	
Operating temperature	0°C ~ 60°C ( 32°F ~ 140°F) -20°C ~ 70°C ( -4°F ~ 158°F) optional -40°C ~ 70°C (-40°F ~ 158°F) optional
Storage temperature	-40°C ~ 80°C (-40°F ~ 176°F)
Relative humidity	0% ~ 95% (non-condensing)
Form Factor	
Dimensions (L x W)	3.5" Embedded Board 146mm x 102mm (5.75" x 4.01")

## Rear I/O



## Dimensions



## Ordering Information

Part Number	Description
AECX-MTLO-155H-S000	3.5", Intel Ultra 7 155H 65W, 2HDMI/LVDS/2USBC, SATA/2COM/8USB/2LAN, DC(12V~36V)/ATX4P
AECX-MTLO-125H-S000	3.5", Intel Ultra 5 125H 65W, 2HDMI/LVDS/2USBC, SATA/2COM/8USB/2LAN, DC(12V~36V)/ATX4P
AECX-MTLO-155U-S000	3.5", Intel Ultra 7 155U 28W, 2HDMI/LVDS/2USBC, SATA/2COM/8USB/2LAN, DC(12V~36V)/ATX4P
AECX-MTLO-125U-S000	3.5", Intel Ultra 5 125U 28W, 2HDMI/LVDS/2USBC, SATA/2COM/8USB/2LAN, DC(12V~36V)/ATX4P
AECX-ARLO-255U-S000	3.5", Intel Ultra 7 255U 28W, 2HDMI/LVDS/2USBC, SATA/2COM/8USB/2LAN, DC(12V~36V)/ATX4P
AECX-ARLO-225U-S000	3.5", Intel Ultra 5 225U 28W, 2HDMI/LVDS/2USBC, SATA/2COM/8USB/2LAN, DC(12V~36V)/ATX4P

## Optional Accessories

Part Number	Description
800702005001	Audio cable
801202205002	COM port cable
801302204502	SATA + SATA power cable
11331070660x	Heat spreader