

ARTS-1550-P4/M4

Intel® Amston Lake In-Vehicle Fanless Computer with 4 x PoE+ 2.5GbE Ports



Features

- Intel® Amston Lake x7433RE processor
- Rugged -40°C to 70°C fanless operation
- Support single DDR5 slot up to 16GB
- 4x PoE+ 2.5GbE ports via RJ45/M12 X-coded w/ 60W power budget
- 2 x Isolated CAN2.0(A/B), Isolated 2KV 4-DI/4-DO, 2 x COM
- 1 x M.2 B Key (USB3.0+USB2.0) w/SIM slot for 4G/5G/LTE module
- 1 x M.2 B Key (SATA+USB2.0) for storage or GNSS module
- 1 x full-size mini-PCIe (PCIe x1+USB 2.0) w/SIM for WiFi/BT/LTE module
- Outside accessible 1x2.5" HDD tray and 1xSD card slot
- Dual-Display for 2x HDMI
- E-Mark compliant & MIL-STD-810H Shock/ Vibration certified
- Support dTPM2.0 & Windows®11

System

CPU	Intel® Atom® x7433RE processor (Quad-Core SoC, 3.4GHz, TDP 9W)
Memory	1 x DDR5 SO-DIMM sockets, support 4800MHz up to 16GB
LAN Chipset	4 x Intel® i226-IT 2.5GbE controller
Watchdog Timer	1~255 levels reset
TPM	Support dTPM2.0

I/O

Serial Port	1 x RS-232/422/485 by DB-9 Connector (non-isolated) 1 x RS-485 by DB-9 Connector (non-isolated)
USB Port	2 x USB-A 3.2 Gen2 (10Gbps) port 4 x USB-A 2.0 port
LAN	4 x PoE+ 2.5GbE ports by RJ45 (P4) with LED (PoE) 4 x PoE+ 2.5GbE ports by M12 X-coded (M4) with LED (Link, PoE, Active)
PoE	4 x 802.3af or 2x 802.3at w/ 60W power budget
Display	2 x HDMI 2.0, resolution up to 3840x2160@60Hz
Audio	2x 3.5mm Audio Jack for Mic-in and Line-out
Expansion Bus	1 x M.2 B-Key 2242/3052 (USB 3.0+USB 2.0) w/ SIM slot for 4G/5G/LTE module *Outside accessible SIM slot *Support Dual SIM (optional) 1 x full-size mini-PCIe (PCIe x1+USB 2.0) w/ SIM slot for Wi-Fi/BT/LTE module *Outside accessible SIM slot
Digital I/O	4 x DI & 4 x DO w/ 2kV isolation by DB-15 connector
CANBus	2 x Isolated CAN2.0(A/B) in 1 x DB-9 connector
Others	Support accelerometer(G-Sensor) and Gyroscope 5 x Antenna holes

Storage

	1 x outside accessible drive tray for 2.5" SATA SSD/ HDD up to 9.5mm height (SATA3)
Type	1 x outside accessible SD card socket 1 x M.2 B-Key 2242/2280 (SATA+USB 2.0) for storage or GNSS module

Power Requirement

Power Input	DC 9~36V input, 3-Pin Terminal Block type with IGN PWR control (V+, V-, IGN)
Power Consumption	Max. 100W

Environmental

Operating Temp.	-40°C ~ 70°C (-40°F ~ 158°F)
Storage Temp.	-40°C ~ 85°C (-40°F ~ 185°F)
Operating Humidity	10% ~ 95% @ 70°C (non-condensing)
Vibration	Operating, MIL-STD-810H, Method 514.8, Category 4
Shock	Operating, MIL-STD-810H, Method 516.8, Procedure I, functional shock=20g

Mechanical

LED indicator	1 x Green LED indicator for WWAN and WLAN 1 x Red LED indicator for SATA (2.5" SATA SSD and M.2 SATA SSD)
Button	1 x Power Button with dual LED color (Red in standby, Green in Power-on) 1 x Reset Button (accessible only with a tip)
Construction	Aluminum alloy
Mounting	Desktop (default) / Wall-mount (optional)
Weight	2.4 kg
Dimensions (W x H x D)	210 x 58 x 190 mm

Qualification

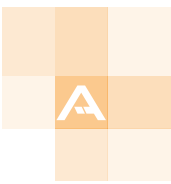
Certification	CE, FCC Class A, E-Mark compliant
---------------	-----------------------------------

OS Support

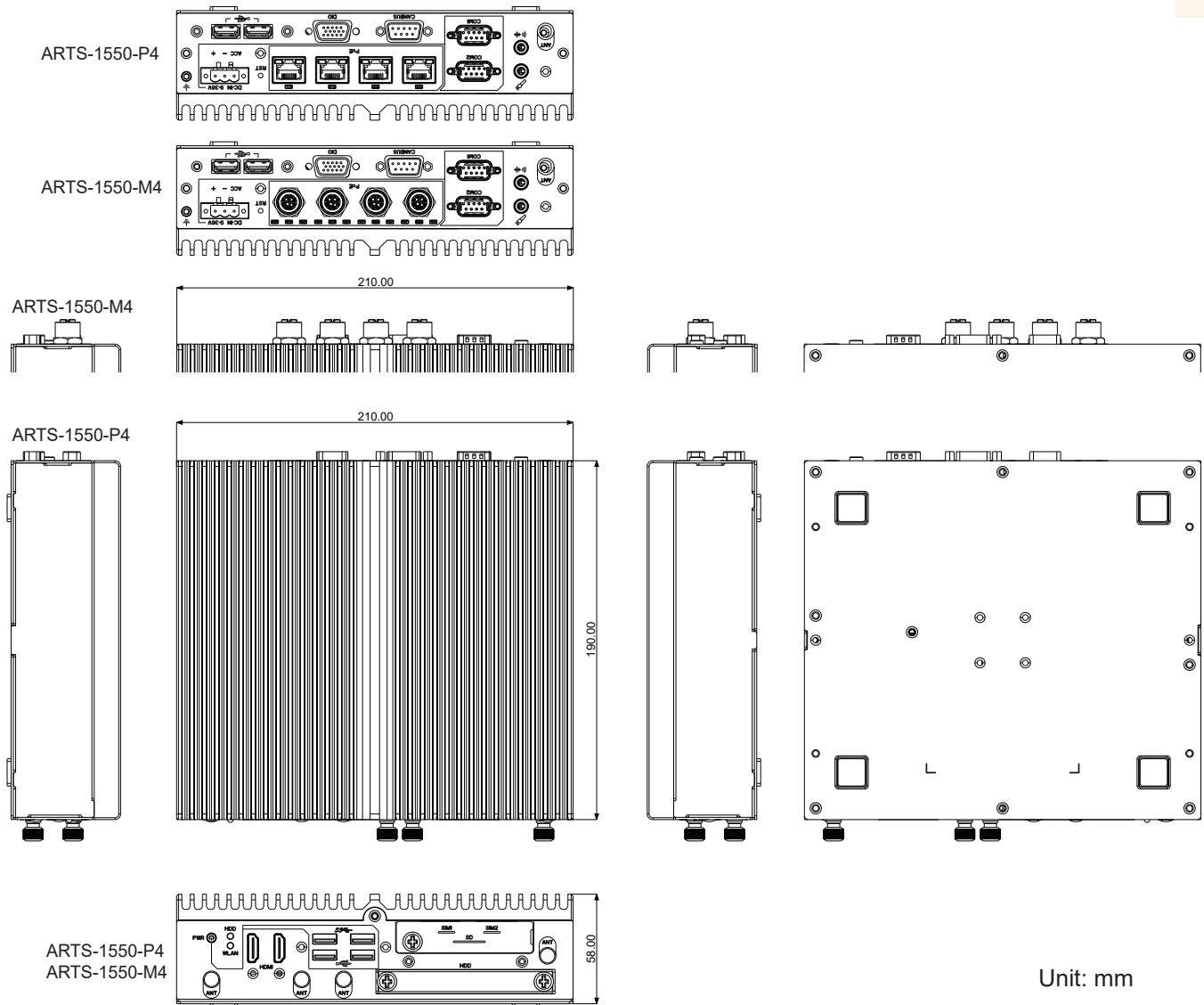
Windows 10® IoT / Windows 11® IoT / Linux Ubuntu 22.04

Ordering Information

ARTS-1550-P4	Intel® Atom® Processor x7433RE w/ 4 x PoE+ 2.5GbE LAN ports via RJ45
ARTS-1550-M4	Intel® Atom® Processor x7433RE w/ 4 x PoE+ 2.5GbE LAN ports via M12 X-coded



Dimension



Unit: mm

Standard Accessories

CLB-1550	Cable-Lock Bracket for ARTS-155X Series	
----------	---	--

Optional Accessories

PAC-120W6B-FSP-ES	19V/6.3A, 120W AC/DC Adapter Kit	
PAC-180W6C-FSP-ES	24V/7.5A, 180W AC/DC Adapter Kit	
DDR5 8G/16G RAM	DDR5-5600 8G/16G SO-DIMM Module	
WiFi-AT4550	Atheros QCNFA324 mPCIe Wi-Fi+BT Module Kit (w/ 2 x 30cm RF Cable)	
WiFi-MT1440	MediaTek MT7921AUN M.2 B-Key Wi-Fi 6E+BT Module Kit (w/ 2 x 25cm RF Cable)	
LTE-4450	Quectel EG25-G mPCIe LTE Cat 4 Module Kit (for Global, w/ 1 x 25cm RF Cable)	
ANT-T15	1 x Wi-Fi 6E Tri-band 2.4G/5G/6G Dipole Antenna Kit	
ANT-H11	1 x 2dBi HSUPA Antenna Kit	
WMK-1973	Wall Mounting Bracket Kit for ARTS-155X Series	