



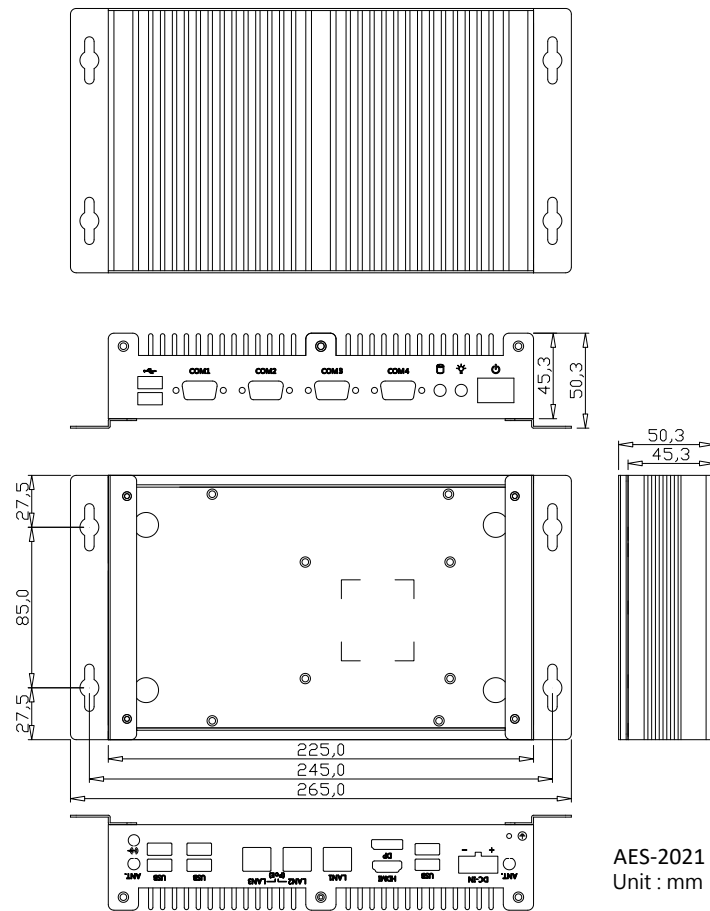
Features

- Fanless Box PC supports operating wide temperature -20°C ~ +70°C by Intel Elkhart Lake Atom x6425E QC CPU
- Supports DDR4 3200MHz, 1xSO-DIMM, up to 32GB system memory
- 1 x DP++, 1 x HDMI, 2x USB 3.2, 6x USB 2.0, 1x Line-out
- 1 x Intel 2.5GbE by I226-LM, 2 x Intel i210 GbE support option PoE
- 4 x COM, COM1/2/3/4 by RS-232/422/485
- Onboard M.2 M/E-Key, option TPM 2.0
- DC 9~48V input, option 60W(12V/5A), 120W(24V/5A) power adapter
- Supports Microsoft Windows 10 IoT 64bit (Ent 2019 LTSC)
- Designed for extreme operating environment as outdoor applications

Specifications

AES-2021 Series Key Features		AES-2021M-M0M00P0	AES-2021P-M0M00P0	AES-2021N-M0M00P0
Processor System	CPU Max./Base Speed	Up 3.0GHz/2.0GHz	Up 3.0GHz/2.0GHz	Up 3.0GHz/1.3GHz
	L2 Cache / Core	1.5MB, 4-Core	1.5MB, 4-Core	1.5MB, 2-Core
	CPU/ TDP	Atom x6425E / 12W	Atom x6425E / 12W	Atom x6211E / 6W
	BIOS	AMI UEFI 256Mbit		
Security	Graphics Processor	Intel UHD Graphics		
	TPM	TPM2.0(option)		
Expansion Slot	M.2 M-Key	1 x M.2 M-Key 2242/2280 (PCIe x2 Gen3/SATA 3.0) Slot		
	M.2 E-Key	1 x M.2 E-Key 2230(PCIe x1 Gen3/USB 2.0) for Wireless		
Memory	Specification (SO-DIMM)	1 x DDR4 3200MHz SO-DIMM 8GB, option wide temperature (Max. up to 32GB)		
Graphics	DP	1 x DP++, resolution up to 4096x2160 @ 60Hz		
	HDMI	1 x HDMI, resolution up to 4096x2160 @30Hz		
Ethernet	LAN Gigabit Controller	1 x 2.5GbE LAN (Intel I226-LM)		
	PoE	2 x GbE LAN (Intel i210)	2 x PoE IEEE 802.3at	2 x GbE LAN (Intel i210)
Storage	M.2 M-Key	1 x M.2 M-Key 2242/2280(PCIe x2 Gen3/SATA 3.0)		
System Rear I/O	DP	1 x DP++, up to 4K@60Hz		
	HDMI	1 x HDMI, up to 4K@30Hz		
	LAN1	1 x RJ45 (2.5GbE)		
	LAN2/3 (option PoE)	2 x RJ45 (GbE)	2 x RJ45(PoE)	2 x RJ45 (GbE)
	USB Type A	2 x USB 3.2(Gen 2), 4 x USB 2.0		
	Audio	1 x Audio port (Line-out)		
	System Power Input	1 x DC Input by 2-pin connector, 9~48Vdc Input (+/-10% DC)		
	Antenna(option)	2 x Antenna holes (options)		
System Front Bezel	Power-On Button	1 x Moment button switch to turn-on system		
	System Power LED	1 x LED for system power status		
	HDD LED	1 x LED for SSD data access status		
	COM1/2/3/4	1 x DB-9 (RS-485/422/232)		
Operation System	USB Type A	2 x USB 2.0		
	Windows 64-bit	Win 10 IoT 64-bit		
Watchdog Timer	Linux 64-bit	Ubuntu 19.04 / 20.04; Fedora 30; RHEL 7.6/8.0/8.2; SUSE Leap/SLES		
Power Requirement	Output and Interval	System reset, programmable 1 ~ 255 sec/min; 1 sec. or 1min. /step		
Environment	DC Input	9~48Vdc input (option DC12V/5A 60W adapter)		
	Operating Temperature	-20°C ~ 70°C(-4°F ~ 158°F)		
	Air Flow condition	65°C ~70°C (149°F ~158°F) w/0.7m/s air flow and by x6425E CPU		
Physical Size	Storage Temperature	-40 ~ 85°C (-40°F ~ 185°F)		
	Dimensions	225mm(W) x 140mm(D) x 45mm(H)		
Packing Size	Dimensions	300mm(W) x 270mm(D) x 130mm(H)		
Weight	N.W / G.W.	Single packed: 2.5Kg / 3Kg		
Certifications	EMC	CE/FCC Class B		

Dimensions Outlook



Ordering Information

Part Number	CPU	HDMI/DP	2.5GbE/GbE	PoE	USB3.2	USB 2.0	COM	DDR4 RAM	M.2 M-Key	60/120W PSU
AES-2020M-M0M00P0	x6425E	1/1	1/2	0	2	6	4	Option	Option	Option
AES-2020N-M0M00P0	x6211E	1/1	1/2	0	2	6	4	Option	Option	Option
AES-2020P-M0M00P0	x6425E	1/1	1/2PoE	2	2	6	4	Option	Option	Option
AES-2020P-M8PA8P0	x6425E	1/1	1/2PoE	2	2	6	4	8GB	M.2 2280 128GB NVMe	Option
AES-2020P-M8NA8P0	x6425E	1/1	1/2PoE	2	2	6	4	8GB	M.2 2242 128GB NVMe	Option

Optional Items

Part Number	Description
SODIMM-DDR4- M8	204-Pin SODIMM DDR4-3200 8GB
M.2-SA8(2280) / M.2-SB6	M.2 2280 SATA3 2280 128GB TLC / 256GB TLC
M.2-PA8(2280) / M.2-PB6	M.2 2280 PCIe4 Gen3 128GB NVMe / 256GB NVMe
M.2-NPA(2242) / M.2-NB6	M.2 2280 PCIe4 Gen3 128GB NVMe / 256GB NVMe
AC-9260	M.2 2230 (E-KEY) Wi-Fi Module, Intel AC9260 802.11abgn + Bluetooth 5.0, dual band 2T2R
DHAN3-60W-2P	AC-DC 60W Adapter, 90V-264Vac input by C14 socket, DC 12V@5A output with 2-pin phoneix connector
96PSA-A120W24T2	AC-DC 120W Adapter, 90V~264Vac input by C14 socket, DC 24V@5A output with 2-pin phoneix connector
AES WM-140 Kits	AES Wall Mount Kits with Screws (WM-140)