



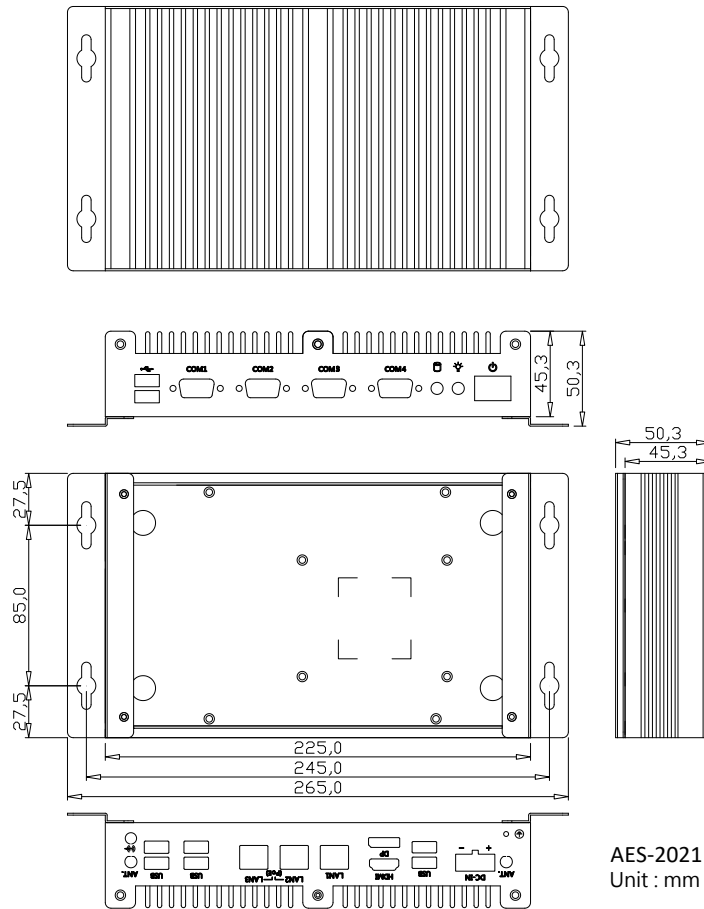
### Features

- Fanless Box PC supports operating wide temperature -20°C ~ +55°C with 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 3.1, 6x USB 2.0, 1x Line-out
- 1 x Intel 2.5GbE by I226-LM, 2 x Intel i210 GbE support option PoE
- 4x COM, COM 1 by RS-485/422/232, COM 2/3/4 by RS-232
- Onboard M.2 M/E-Key, option TPM 2.0
- DC 9~48V input, option 60W(12V/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-2021N-M0M00P0
Processor System	CPU Max. Speed	Up 3.0GHz/2.0GHz	Up 3.0GHz/2.0GHz
	L2 Cache / Core	1.5MB, 4-Core	1.5MB, 4-Core
	CPU/ TDP	Atom x6425E / 12W	Atom x6425E / 12W
	BIOS	AMI SPI 256Mbit, XQ2.0	
Security	Graphics Processor	Intel UHD Graphics	
	TPM	fTPM(default), dTPM2.0(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 wide temperature (Max. up to 32GB)	
Graphics	DP	1 x DP++, resolution up to 4096x2160 @ 60Hz	
	HDMI	1 x HDMI, resolution up to 4K@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
Storage	M.2 M-Key	1 x M.2 M-Key 2242/2280	
System Rear I/O	DP	1 x DP++	
	HDMI	1 x HDMI	
	LAN1	1 x RJ45 (2.5GbE)	
	LAN2/3 (option PoE)	2 x RJ45 (GbE) / option 2 x RJ45(PoE)	
	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-in by 2-pin connector, 9~48Vdc Input (+/-10% DC)	
	Antenna	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	1 x DB-9 (RS-485/422/232)	
	COM2/COM3/COM4	3 x DB-9 (RS-232)	
Operation System	USB Type A	2 x USB 2.0	
	Windows 64-bit	Win 10 IoT 64-bit	
	Linux 64-bit	Ubuntu 19.04 / 20.04; Fedora 30; RHEL 7.6/8.0/8.2; SUSE Leap/SLES	
Watchdog Timer	Output and Interval	System reset, programmable 1 ~ 255 sec/min; 1 sec. or 1min. /step	
Power Requirement	DC Input	12Vdc input (option DC12V/5A 60W adapter)	
Environment	Operating Temperature	-20°C ~ 50°C(-4°F ~ 122°F)	
	Air Flow condition	50°C ~55°C (122°F ~131°F) w/0.7m/s air flow and by x6425E CPU	
	Storage Temperature	-40 ~ 85°C (-40°F ~ 185°F)	
Physical Size	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		

## Dimensions Outlook



## Ordering Information

Part Number	CPU	HDMI/DP	2.5GbE/GbE	PoE	USB3.1	USB 2.0	COM	DDR4 RAM	M.2 M-Key	60W PSU
AES-2020M-M0M00P0	x6425E	1/1	1/2	0	2	6	4	Option	Option	Option
AES-2020N-M0M00P0	x6425E	1/1	1/0	2	2	6	4	Option	Option	Option
AES-2020M-M8S8AP0	x6425E	1/1	1/2	0	2	6	4	8GB	128GB SATA3 TLC	Option
AES-2020N-M8P8AP0	X6425E	1/1	1/0	2	2	6	4	8GB	128GB PCIe2 NVMe	Option

## Optional Items

Part Number	Description
SODIMM-DDR4- M8	204-Pin SODIMM DDR4-3200 8GB
M2-S8A(2280)	M.2 SATA3 2280 128GB 3D-TLC
M2-P8A(2280)	M.2 PCIe2 Gen3 128GB 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
AES-WM-BK	AES Wall Mount Kits with Screws