

# AES-2345 Series

Intel Whiskey Lake i3-8145UE/i5-8365UE CPU  
Fanless Industrial Computer, 2HDMI, 2LAN  
4USB3/6USB2, M.2 E/M, SIM, DC-IN 9-36V



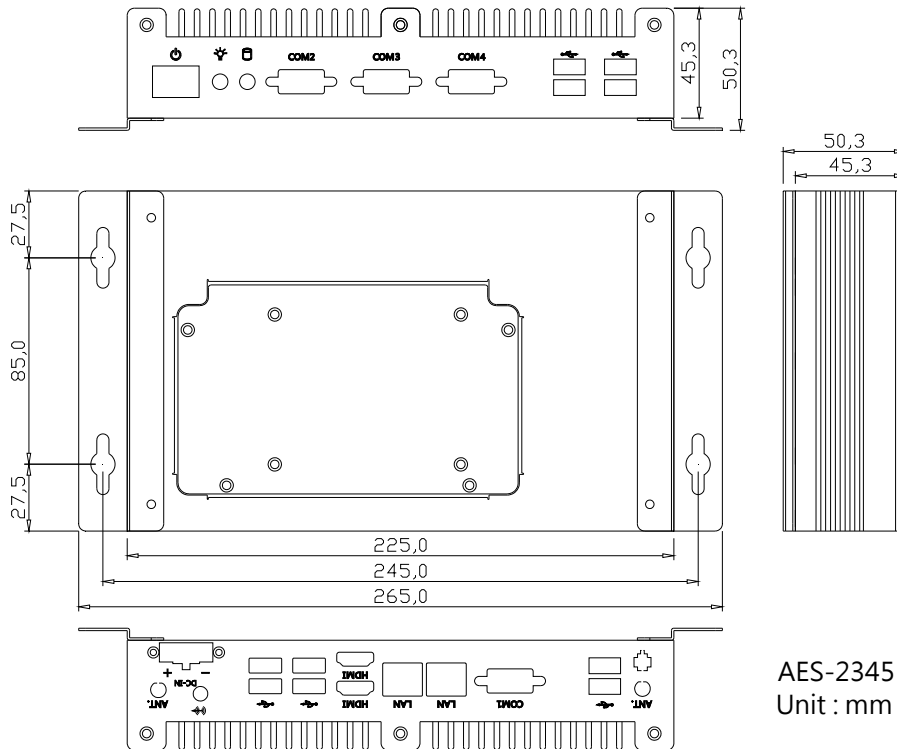
## Features

- Intel 8th Whiskey Lake-U Core i3-8145UE/i5-8365UE CPU
- Supports DDR4 2400MHz, 2xSO-DIMM, up to 32GB system memory
- Dual HDMI 1.4 port, max resolution up to 4096x2340 @24Hz
- 2 Gigabit Intel LAN, 4x USB 3.1(Gen2), 2x USB 2.0
- 4x COM, COM1 by RS-485/422/232, COM2/3/4 by RS-232
- M.2 M-Key Ultra-Fast PCIe Gen3 x4, 1 x Full-size Mini-PCIe w/SIM
- Wide DC 9-36V Input by 2-Pin phoenix connector
- Supports Microsoft Windows 10 IoT 64bit (Ent 2019 LTSC)
- ATM, Kiosk, self-service, machine automation, IoT gateway platform

## Specifications

		AES-2345L-C4	AES-2345E-C4	AES-2345H-C4
Processor System	CPU Max. Speed	Up 3.9GHz/ 2.2GHz	Up to 4.1GHz/ 1.6GHz	Up to 4.4GHz/ 1.7GHz
	L2 Cache / Core	4MB, 2-Core/4T	6MB, 4-Core/8T	8MB, 4-Core/8T
	CPU/ TDP 15W	i3-8145UE	i5-8365UE	i7-8665UE
	BIOS	256Mb SPI MX25L25673GM21-08G		
	Graphics Processor	Intel UHD Graphics 620		
Expansion Slot	Mini-PCIe	1 x full-size Mini-PCIe( Mini-PCIe x1 + USB 2.0) supports 3G/4G module		
	M.2 E-Key	1 x M.2 E-Key 2230(WiFi/BT)		
	M.2 M-Key	1 x M.2 M-Key 2280 (PCIe 3.0 x4/SATA 3.0)		
Memory	Specification (SO-DIMM)	2 x DDR4 2400MHz ( 2 x SO-DIMM, 16GB per SO-DIMM)		
	System Max. Capacity	32GB		
Graphics	HDMI	2 x HDMI 1.4 (max. resolution up to 4096x2340@24Hz)		
Ethernet	LAN Gigabit Controller	2 x LAN (1x Intel i211AT, 1x Intel i219V )		
Storage	M.2 M-Key	1 x M.2 M-Key 2280(PCI-E x4/SATA 3.0)		
	SATA 3.0	1 x SATA 3.0 6Gb/s for 2.5" SATA HDD/SSD		
System Rear I/O	HDMI	2 x HDMI		
	Ethernet	2 x RJ45		
	USB Type A	4 x USB 3.1(Gen 2) , 2 x USB 2.0		
	Audio	1 x Audio port (Line-out)		
	COM1 Port	1 x DB-9 (RS-485/422/232, Pin9 PI/+5/+12V selectable)		
	System Power Input	1 x 2-pin phoenix connector 9-36Vdc Input		
System Front Bezel	Antenna	2 x Antenna holes (options)		
	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		
	COM2-4 Port	3 x DB-9 ( RS-232)		
	USB 2.0 Type A	4 x USB 2.0		
Operation System	Win 10	Win 10 IoT 64-bit, Ent 2019 LTSC		
Watchdog Timer	Output and Interval	System reset, programmable 1 ~ 255 sec/min; 1 sec. or 1min. /step		
Power Requirement	DC Input	9-36Vdc input (option DC12V 60W adapter)		
Environment	Operating Temperature	0°C ~50°C(32~122°F)		
	Air Flow condition	50°C -60°C with 0.7m/s air flow		
	Storage Temperature	-40°C ~ 85°C ( -40 ~ 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	CE/FCC Class B		
	LVD, UL	N/A		

## Dimensions Outlook



## Ordering Information

Part Number	CPU	HDMI	GbE	USB 3.1	USB 2.0	COM	DDR4 RAM	M.2 M-Key(2280)	2.5" SATA SSD	60W PW
AES-2345L-C4M0S64LP0	i3-8145UE	2	2	4	6	4	Option	Option	64GB SSD MLC	Option
AES-2345E-C4M0H00P0	i5-8365UE	2	2	4	6	4	Option	Option	Option	Option
AES-2345E-C4M8N12DP0	i5-8365UE	2	2	4	6	4	8GB	128GB TLC	Option	Option
AES-2345E-C4M8R12DP0	i5-8365UE	2	2	4	6	4	8GB	128GB NVMe	Option	Option
AES-2345H-C4M8N25DP0	i7-8665UE	2	2	4	6	4	8GB	256GB TLC	Option	Option

\*AES-2345 series with Wi-Fi by request and with MOQ.

## Optional Items

Part Number	Description
SODIMM-DDR4- 4GB / 8GB	204-Pin SODIMM DDR4-2666, 4GB / 8GB
SSD-S64L; SSD-S12D/S25D/S51D	2.5" SATA3 SSD 64GB MLC; SATA3 SSD 3D-TLC, 128GB/256GB/512GB
M2-N12D/N25D/N51D(2280/S80)	M.2 SATA3 2280(S80) 128GB/256GB/512GB 3D-TLC (M-KEY)
M2-R12D/R25D/R51D(2280/P80)	M.2 2280(P80) PCIe4 NVMe TLC 128GB/256GB/512GB
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