

## Edge Controller, KGEC Series

# KGEC-6310

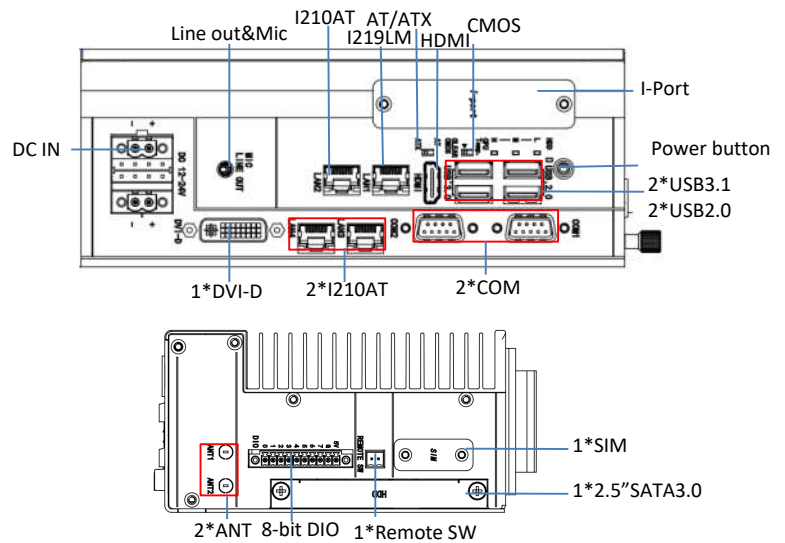
Intel® Whiskey lake-U CPU, 4\*LAN, 2\*USB3.1, 3\*USB2.0, HDMI, DVI-D, 2\*COM, 8-bit DIO, RTOS, TSN



KGEC-6310 is a newly edge motion controller, It powered by Intel® Whiskey lake-U CPU, 2\*DDR4 2133/2400MHz, up to 32GB. Rich IO interface ,HDMI+ DVI-D, 3\*Intel I210AT, optional support for EtherCAT protocol and CanOpen protocol ,1\*Intel I219LM, support iAMT12.0, 2\*USB3.1, 3\*USB2.0, 2\*COM, 1\*Mini PCIe, support 4G/Wifi/BT, 1\*M.2 2230 E-key, 1\*2.5"SATA3.0, 1\*mSATA used for storage. DC 12~24V wide power input ,support wall mounting and Din-Rail mounting. BIOS optimized and support real-time system, Ubuntu Preemt-RT, optional support INTime. The aluminum profile bottom shell design is good for heat dissipation of hard disk. The machine is small, powerful and delicate, which are very suitable for Machine Vision, CNC control, Motion control and so on.

### Key Features

- Aluminum chassis, Fanless design
- Intel® Whiskey lake-U CPU
- DVI-I/DP the display signal can be extended without attenuation
- 3\* I210 AT network chips, Optional support for a variety of real-time industrial Ethernet protocols
- 1\*I219LM, support iAMT12.0
- BIOS optimization and support high real-time system
- 1\*Mini PCIe with SIM slot, 1\*M.2, 2230 E-Key
- Support software development platform (optional)
- DC 12~24V, Wide power supply
- Support wall mounting and Din-Rail mounting



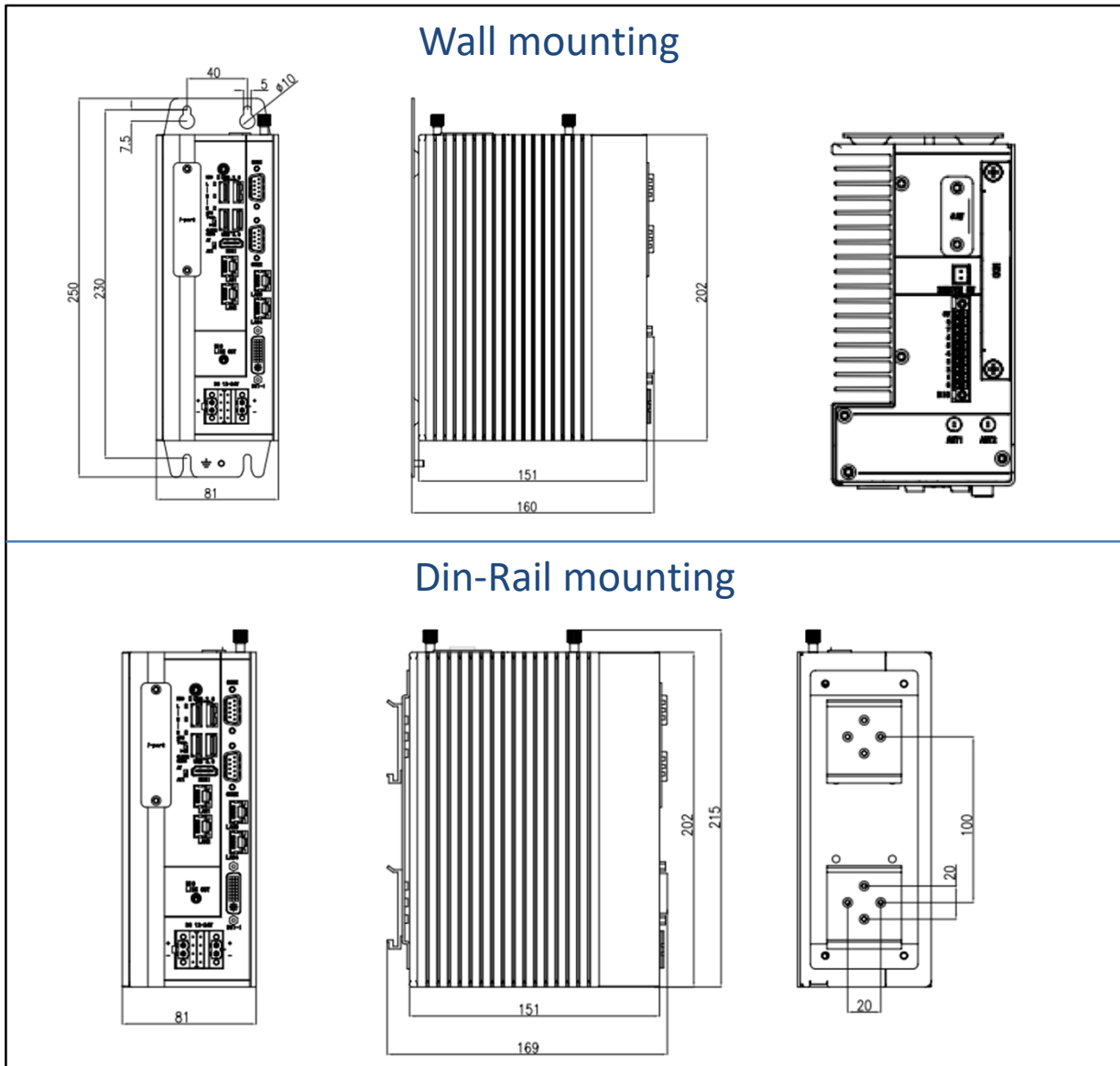
### SPEC.

System	CPU	Celeron 4305U	Core I3-8145U	Core I5-8265U	Core I7-8565U	
		Cores	2	2	4	4
		Threads	2	4	8	8
		Frequency(GHz)	2.2	2.1-3.9	1.6-3.9	1.8-4.6
System Memory	Dual channel DDR4 2400MHz SO-DIMM , up to 32GB					
Expansion	1*full size Mini PCIe (PCIe X1+ USB) with SIM slot,support 4G/Wifi/BT/CAN module 1* M.2 E-key 2230, with PCIe X1+ USB2.0 signal, expansion of Wifi/BT module					
Intel Graphics	Intel Gen. 9 UHD Graphics,HEVC/H265 HWen/decoder HDMI max. res. 4096*2304@60Hz DVI-D max. res. 2560x1600,60Hz					
Audio	Realtek ALC662VD controller, 1*Line out&Mic high fidelity audio interface, support 5.1 channel					
LAN	3*Intel I210AT PCIe Gig. Ethernet, 10/100/1000Mbps ; 1*Intel®I219LM , support iAMT12.0					
Storage	1*2.5" SATA3.0 HDD/SSD 1*mSATA full size support AHCI					
I/O ports	4*Gig-LAN(RJ45) 2*USB3.1(Type A), 2*USB2.0(Type A) 2*RS232/422/485 (DB9) 1*8-bit DIO (1*10Pin phoenix) 1*HDMI+ 1*DVI-D 1*Line out&Mic 3.5mm phone jack					
LED	1*Power LED, 1*HDD LED, 3*CPU temp. LED (Red is warning , Yellow is high, Green is normal)					
Control SW	1*Power button, 1*AT/ATX Select SW, 1*Clear CMOS Select SW					
Power Supply	DC 12~24V Input, 2*2-pin ter. Connector,TDP:12V/2.64 A (CPU I3-8145U 4GB)					
Watchdog Timer	Watchdog timeout programmable via software 1 to 255 second					
OS Support	RTOS: INtime, EC-Win, RTX-2014/2016, Ubuntu Preempt-RT Windows 7, Windows 10, Linux Fedora Ubuntu (Note: Gen.7th Intel® Kabylake-S processors don't support Windows 7)					

Mechanical	Structure	Aluminum chassis, SGCC frame
	Color	Silk grey
	Mounting	Wall-mounting, Din-Rail mounting
	Dimension	(W*H*D):202*151*81mm
	Net weight	2.59KG
Environmental	Operating temperature	-20°C~60°C, wide operating temp. SSD
	Storage Temperature	-40°C~85°C
	Storage Humidity	10~90%@40°C, Non-condensing
	Vibration	5grms/5~500Hz/random/in working(SSD); 1grms/5~500Hz/random/in working(HDD)
	Shock	50g peak acceleration(11ms duration)(SSD); 20g peak acceleration(11ms duration)(HDD)
	Certification/EMC	CE/FCC Class B

## Dimension

Unit:mm



## Ordering Info.

Model No.	CPU	Introduction
KGEC-6310/S001	Intel® Core I3-8145U	Edge controller,Dual-ch DDR4 2*SO-DIMM, 4*LAN, 2*USB3.1, 3*USB2.0, 2*COM,8-bit DIO, 1*Mini PCIe, 1*M.2, 1*DVI-D, 1*HDMI, 1*mSATA, 1*2.5" SATA3.0, DC 12~24V
KGEC-6310/S002	Intel® Core I5-8265U	Edge controller,Dual-ch DDR4 2*SO-DIMM, 4*LAN, 2*USB3.1, 3*USB2.0, 2*COM,8-bit DIO, 1*Mini PCIe, 1*M.2, 1*DVI-D, 1*HDMI, 1*mSATA, 1*2.5" SATA3.0, DC 12~24V
KGEC-6310/S003	Intel® Core I7-8565U	Edge controller,Dual-ch DDR4 2*SO-DIMM, 4*LAN, 2*USB3.1, 3*USB2.0, 2*COM,8-bit DIO, 1*Mini PCIe, 1*M.2, 1*DVI-D, 1*HDMI, 1*mSATA, 1*2.5" SATA3.0, DC 12~24V
KGEC-6310/S004	Intel® Celeron 4305U	Edge controller,Dual-ch DDR4 2*SO-DIMM, 4*LAN, 2*USB3.1, 3*USB2.0, 2*COM,8-bit DIO, 1*Mini PCIe, 1*M.2, 1*DVI-D, 1*HDMI, 1*mSATA, 1*2.5" SATA3.0, DC 12~24V
PA-120DC19	AC/DC power adapter, DC19V/6.32A 120W	

\*All specifications and photos are subject to change without notice.  
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