

Edge Controller, KGEC Series

KGEC-6301

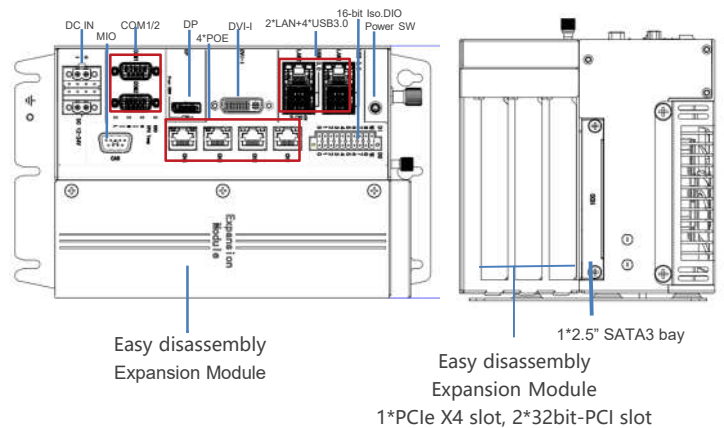
Intel® Skylake-S/Kabylake-S CPU, 2*LAN, 4*POE, 4*USB3.0, DP, DVI-I, 2*COM, 16-bit Iso. DIO, Modularization, RTOS, TSN



KGEC-6301 is a newly edge motion controller, It powered by Intel® Skylake-S / Kabylake-S CPU, H110 Chipset, 1*DDR4 2133/2400MHz, up to 16GB. Rich IO interface ,DP+ DVI-I, 2*LAN, 4*POE, all use Intel I210AT, optional support for EtherCAT protocol and CanOpen protocol ,4*USB3.0, 2*COM, 1*MIO, 1*PCIe X4 slot, 2*32bit-PCI slot,1*Mini PCIe, support 4G/Wifi/BT. 1*mSATA, 1*2.5"SATA3.0 used for storage. DC 12~24V wide power input ,support wall mounting and Din-Rail mounting. Adopt active and passive cooling design, fan wind speed can be intelligently controlled. BIOS optimized and support real-time system, Ubuntu Preemt-RT, optional support INtime. The extension module and the host are designed with easy disassembly, and the extension quantity is flexible. Different extension modules can be selected for different application scenarios, which are very suitable for Machine Vision, CNC control, Motion control and so on.

Key Features

- Intel® Kabylake-S/Skylake-S CPU, up to 65W
- CPU active and passive cooling design
- Intelligent temperature control fan, silent and dustproof
- DVI-I/DP the display signal can be extended without attenuation
- Dual I210 AT network chips, Optional support for a variety of real-time industrial Ethernet protocols
- BIOS optimization and support high real-time system
- 4*I210 AT chip POE camera interface and 16-bit iso. DIO
- 1*PCIe X4 slot, 2*32bit-PCI slot
- Support software development platform (optional)
- DC 12~24V, Wide power supply
- Support wall mounting and Din-Rail mounting



SPEC.

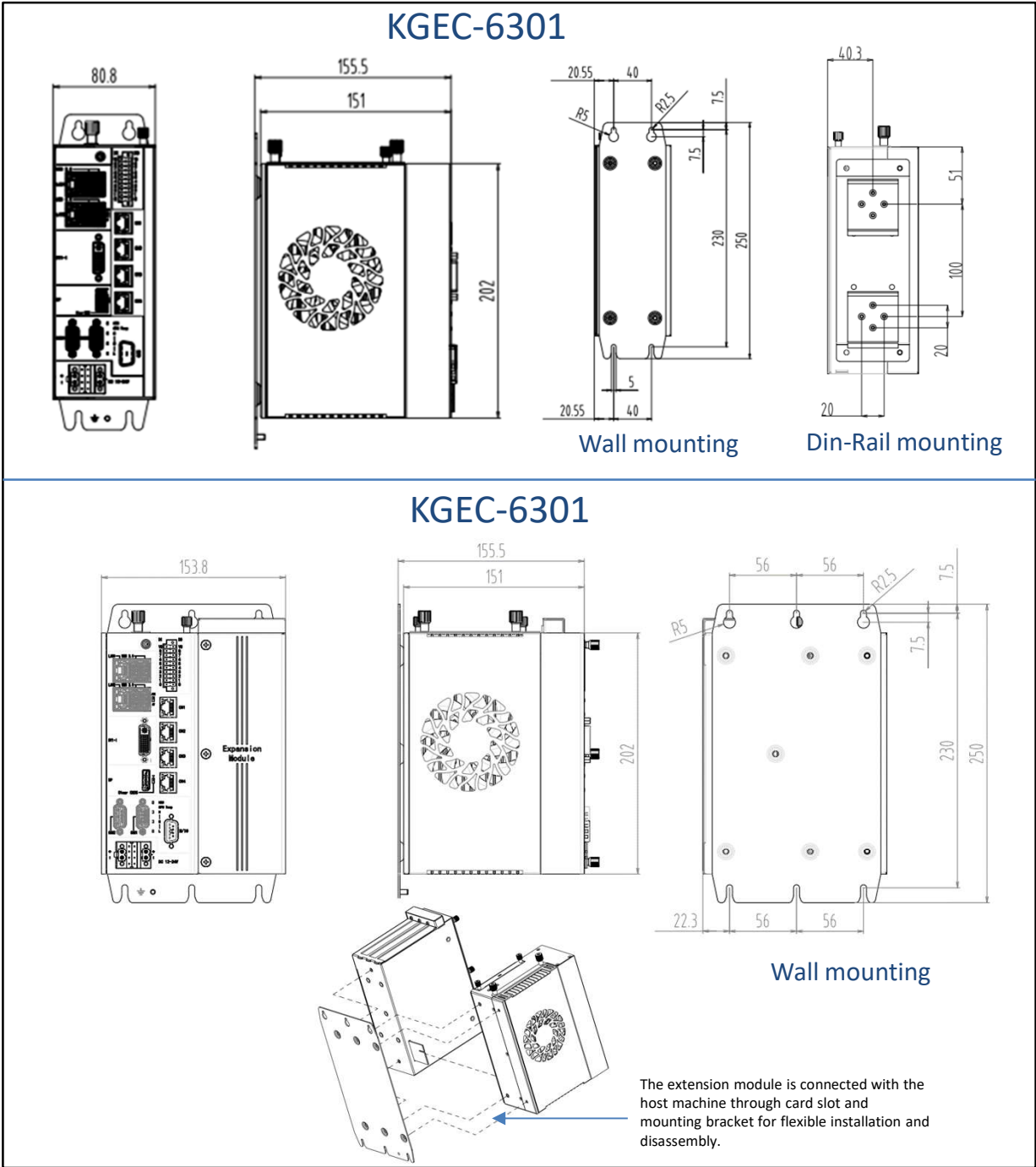
System	CPU	Gen.6th Intel® Skylake-S/gen.7th Intel® Kabylake-S Pentium/Core I3/I5/I7 CPU, LGA 1151 socket
	Chipset	Intel® H110
	System Memory	1*260-Pin SODIMM, DDR4 2400/2133MHz, up to 16GB
	Expansion	1*full size Mini PCIe (PCIe X1+ USB) with SIM slot,support 4G/Wifi/BT/CAN module
		1*PCIe X4 slot (X1 signal)
	Intel Graphics	2*32bit-PCI support motion control card, acceleration card and other functions of the expansion card
		Intel Gen. 9 HD Graphics,HEVC/H265 HW HD en/decoder DP max. res. 4096*2304@60Hz DVI-I(DVI-D+ VGA) DVI-D max. res. 1920*1200@60Hz, VGA max. res. 2560*1600@60Hz
	LAN	2*Intel I210AT PCIe Gig. Ethernet, 10/100/1000Mbps ; 4*Intel I210AT PCIe Gig. Ethernet with POE function, 802.3af(15.4W)
	Storage	1*2.5" SATA3.0 HDD/SSD 1*mSATA full size(SATA & USB2.0)
	DIO	16-bit DIO(20-pin phoenix) 8-bit Iso. DI(High:5~24V,Low:0~1.5V) and 8-bit Iso. DO(200mA)
	I/O ports	2*Gig-LAN(RJ45), 4*POE (RJ45) 4*USB3.0(Type A) 1*MIO with CAN、Uart signal (DB9) 2*RS232/422/485 with TVS Iso. (DB9) 1*DP+ 1*DVI-I
	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
Mechanical	Power Supply	DC 12~24V Input, 2*2-pin ter. Connector,TDP: S001(12V/4.1A I7~6700T 4GB) , add expansion card (12V/4.4A I7~6700T 4GB)
	Watchdog Timer	Watchdog timeout programmable via software 1 to 255 second
	OS Support	RTOS: INtime, EC-Win, RTX-2014/2016和Ubuntu Preempt-RT Windows 7, Windows 10, Linux Fedora Ubuntu (Note: Gen.7th Intel® Kabylake-S processors don't support Windows 7)
	Structure	Aluminum chassis, SGCC frame
	Color	Silk grey
	Mounting	Wall-mounting, Din-Rail mounting
	Dimension	(W*H*D) : S001(202*151*80.8mm),add expansion card (202*151*151mm)
	Net weight	S001: 3KG, add expansion card : 4.4KG

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

Environ- mental	Operating temperature	-20℃~60℃, wide operating temp. SSD
	Storage Temperature	-40℃~85℃
	Storage Humidity	10~90%@40℃, 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.	Introduction
KGEC-6301/S001	Edge controller, Intel® Skylake-S/Kabylake-S LGA1151 CPU, H110 Chipset, 1*DDR4, 2*LAN, 4*POE, 4*USB3.0, 2*COM, 1*MIO,1*Mini PCIe, 1*DVI-I, 1*DP, 16-bit Iso. DIO, 1*2.5" SATA bay, 1*mSATA, DC 12~24V
3 slot expansion component	1*PCIeX4slot (X1 signal) +2*PCI , 3 expansion slot
PA-120DC19	AC/DC power adpter , DC19V/6.32A,120W
PA-220DC24	AC/DC power adpter , DC24V@9.17A ,220W

Support CPU List

Series	Intel® Core™					Intel® Pentium®				
7th Gen	I3-7100	2C/4T	I5-7500	4C/4T	I7-7700	4C/8T	G4600	2C/2T	G4600T	2C/2T
	I3-7100T	2C/4T	I5-7500T	4C/4T	I7-7700T	4C/8T				
6th Gen	I3-6100	2C/4T	I5-6500	4C/4T	I7-6700	4C/8T	G4400	2C/2T	G4400T	2C/2T
	I3-6100T	2C/4T	I5-6500T	4C/4T	I7-6700T	4C/8T				

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Updated Jul. 10th, 2020