

# JHCTECH

Shenzhen JHC Technology Development Co., Ltd.

15F., No. 85, Sec. 1, Zhongxiao E. Rd., Zhongzheng Dist., Taipei City  
100, Taiwan (R.O.C.)

**JHCTECH** IoT Computer  
Connecting the Dots

# KMDA

Embedded Box Computer

# KMDA

Tel : +886-2-2321-0389  
FAX: +886-2-2321-0309  
Email : sales@jhc-technology.com  
Website : www.jhc-technology.com



# JHCTECH

## About JHCTECH

JHCTECH was established in Shenzhen, China, in April 2002, and it has become an intelligent IoT system supplier with strong capabilities in R&D, production, sales and service.

Relying on its rich industry experiences and following the strategy of "Proactive Innovation and Intelligent Manufacturing Based in China", JHCTECH has been focusing on the development and production of industrial computers and system application platforms. Its diversified products and services include the industrial tablet computers, industrial touch monitors, embedded box computers, single-board computers, etc., as well as customized solutions focusing on industry applications and AI-enabled value-added services. Its products have passed the CE, FCC, E-Mark, EN50155 and other safety regulations and industry certifications, and are widely used in many areas including the Industrial Internet of Things (IIoT), Intelligent Transportation System (ITS), Smart Security, Energy and Environmental Protection, and Biological Safety. JHCTECH has built a solid foundation for the businesses of Intelligent IoT and Edge Computing.

Harmony is invaluable, sincerity is the foundation. JHCTECH serves customers with the core values of integrity, gratitude, and responsibility in maximizing values for the society with technological innovation. Adhering to the business philosophy of "focus on the industry, specialize in products, and excel in services", do not lose hope if one's fail, but strive to become a role model of smart ecological commercial civilization that keeps the integrity, emphasizes quality, be courageous, seeks win-win outcome, and dedicated to building a competitive international brand!

Brand strategy : IOT Computer Connecting the Dots

Business philosophy : Focus on the industry, specialize in products, and excel in services.

Stgic slogan : Promote the industry to the world.

Core values : Integrity, gratitude, and responsibility.

Corpo Spirit : Humility, loyalty, innovation, seriousness, solidarity, learning, perseverance  
Corpo Mission : Committed to building a smarter earth and a smarter tomorrow.

Corpo Vision : Better lose than to lose integrity. Become a model of smart IoT ecological commercial civilization that keeps integrity, emphasizes quality, be courageous, and seeks win-win outcomes.

Eight corpo values:

1. Value: Create maximum value for users with the help of technological innovation.
2. Strive: Adhere to long-termism, hard work, and savor the joy of work.
3. Spirit: All methodologies are measured by core values and corpo spirit.
4. Learning: Learning is vital as all manifestation are ultimately the reflection of ability.
5. Team: The interest of the team is of the highest interest, and the individual must obey the organization.
6. Action: The criterion of success is goal pursuit, efficiency and action are the keys
7. Affection: Be empathy, not egalitarianism and oppose opportunism
8. Win-Win: Connect the symbiosis, achieve more, and brings benefit to the society.

APPLICATION



Industrial Automation Equipment



COMPLETE LIST

Product Listing **B1-B7**

KMDA-2602	<b>01</b>	KMDA-3601	<b>19</b>
KMDA-2602 T002	<b>03</b>	KMDA-3602	<b>21</b>
KMDA-2620	<b>05</b>	KMDA-3610	<b>23</b>
KMDA-2701	<b>07</b>	KMDA-3820	<b>25</b>
KMDA-2702	<b>09</b>	KMDA-3920	<b>27</b>
KMDA-3201	<b>11</b>	KMDA-3920 ETC	<b>29</b>
KMDA-3202	<b>13</b>	KMDA-3921	<b>31</b>
KMDA-3212	<b>15</b>	KMDA-5610 S001	<b>33</b>
KMDA-3230	<b>17</b>	KMDA-5920 S001	<b>35</b>
		KMDA-5920 S002	<b>37</b>

KMDA-5921 S001	<b>39</b>
KMDA-5921 S002	<b>41</b>
SCC-3116	<b>43</b>
PADA-M101	<b>45</b>
<b>New</b> KMDA-2630	<b>47</b>
<b>New</b> KMDA-3301	<b>49</b>

Factory Information System



Highway toll



Security Monitoring

地网雪亮工程之智慧社区综治大数据平台



Environmental monitoring



APPLICATION



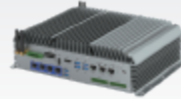
Medical Equipment

# Product Listing

## IoT Gateway

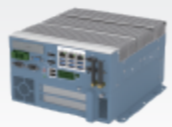
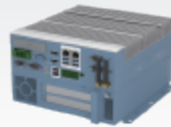


	KMDA-2602	KMDA-2602/T002	KMDA-2620	KMDA-2701	KMDA-2702	KMDA-3201	KMDA-3202
<b>Processor</b>							
CPU	Intel Baytrail-D Celeron J1900 ,Frequency 2.0~2.42GHz, 4C4T, 2M cache, 22nm, TDP 10W	Intel Baytrail-D Celeron J1900 ,Frequency 2.0~2.42GHz, 4C4T, 2M cache, 22nm, TDP 10W	Intel® Apollolake Atom E3940 CPU	Intel Baytrail-D Celeron J1900 ,Frequency 2.0~2.42GHz, 4C4T, 2M cache, 22nm, TDP 10W	Intel Baytrail-D Celeron J1900 , Frequency 2.0~2.42GHz, 4C4T, 2M cache, 22nm, TDP 10W	Intel Skylake-U/Kabylake-U CPU Celeron/Core i3/i5/i7	Intel Skylake-U/Kabylake-U CPU Celeron/Core i3/i5/i7
RAM	1*DDR3L,1333MHz,SODIMM, Max. 8GB	1*DDR3L,1333MHz,SODIMM, Max. 8GB	1*DDR3L, 1866MHz, SODIMM, Max. 8GB	1*DDR3L, 1333MHz, SODIMM, Max. 8GB	1*DDR3L, 1333MHz, SODIMM, Max. 8GB	2*260-Pin SODIMM, DDR4,2133MHz, Max. 32GB	2*260-Pin SODIMM, DDR4,2133MHz, Max. 32GB
Graphics	Intel HD Graphics, Support synchronous or asynchronous dual display, VGA:1920*1200@60Hz, HDMI:1920*1080@60Hz, support OpenGL 3.2, DirectX 11, OpenCL 1.2, MPGE2/H.264	Intel HD Graphics, Support synchronous or asynchronous dual display VGA:1920*1200@60Hz, HDMI:1920*1080@60Hz, support OpenGL 3.2, DirectX 11, OpenCL 1.2, MPGE2/H.264	Gen. 9th Intel HD Graphics, DP:4096*2160@60Hz, HDMI:3840*2160@30Hz,support OpenGL 4.3, DirectX 11, OpenCL 2.0, MPGE2, H.265	Intel HD Graphics, Support dual independent display, VGA:1920*1200@60Hz, HDMI:1920*1080@60Hz,support OpenGL 3.2, DirectX 11, OpenCL 1.2, MPGE2/H.264	Intel HD Graphics, Support dual independent display VGA:1920*1200@60Hz, HDMI:1920*1080@60Hz,support OpenGL 3.2, DirectX 11, OpenCL 1.2, MPGE2/H.264	Intel Gen. 9th HD Graphics, HEVC/H265 HW HD codec, HDMI: 3840*2160@30Hz, DP: 4096*2304@60Hz	Intel Gen. 9th HD Graphics, HEVC/H265 HW HD codec, HDMI: 3940*2160@30Hz, DP: 4096*2160@60Hz
<b>I/O Port</b>							
LAN	4*Intel I211AT PCIe, 10/100/1000Mbps	2*Intel I211AT PCIe, 10/100/1000Mbps	4/2*Intel I211AT PCIe, 10/100/1000Mbps	4*Intel I211AT PCIe, 10/100/1000Mbps	3*Intel I211AT PCIe, 10/100/1000Mbps	2*Intel I211AT PCIe, 10/100/1000Mbps 1*Intel I219 LM support Intel Vpro	2*Intel I211AT PCIe, 10/100/1000Mbps, 1*Intel I219 LM support Intel Vpro, 4*Intel I211AT PCIe Full bandwidth POE
USB	1* USB3.0, 5*USB2.0, 1*USB2.0 (Build-in)	1* USB3.0, 3*USB2.0	2* USB3.0, 4/2*USB2.0, 1*USB2.0 (Build-in)	1* USB3.0, 5*USB2.0, 1*USB2.0 (Build-in)	1* USB3.0, 5*USB2.0, 1*USB2.0 (Build-in)	4* USB3.0, 2*USB2.0, 1*USB2.0 (Build-in)	4* USB3.0, 4*USB2.0, 1*USB2.0 (Build-in)
Display	1*HDMI+1*VGA	1*HDMI+1*VGA	1*DP+1*HDMI	1*VGA+1*HDMI	1*VGA+1*HDMI	1*DP+1*HDMI	1*DP+1*HDMI
Audio	1*Line out,optional audio	1*Line out,optional audio	1*Line out,optional audio	1*Line out+1*Mic, optional audio	1*Line out+1*Mic, optional audio	1*Line out, optional audio	1*Line out+1*Mic,optional audio
Serial port/ Others	2*RS232/422/485, 2*RS232, 2*RS232/485, 1*2 pin terminal, Remote switch, USB mouse/keyboard	2*RS232/422/485, 1*2 pin terminal, Remote switch, USB mouse/keyboard	4/2*RS232/422/485, 2*RS232, 1*2 pin terminal, Remote switch, USB mouse/keyboard	4*RS232/422/485, 2*RS232, 1*2 pin terminal, Remote switch, USB mouse/keyboard	8*RS232/422/485, 2*RS232, 1*2 pin terminal, Remote switch, USB mouse/keyboard	2*RS232/422/485, 4*RS232, 1*2 pin terminal, Remote switch, USB mouse/keyboard	2*RS232/422/485, 4*RS232, 1*PS/2(mouse/keyboard)
DIO	8-bit TTL signal, Programmed input-output	8-bit TTL signal, Programmed input-output	8-bit TTL signal, Programmed input-output	24-bit TTL signal, Programmed input-output	16-bit TTL signal, Programmed input-output	8-bit TTL signal, Programmed input-output	8-bit TTL, Programmable input and output 8-bit Iso. DI(High:5-24V,Low:0-1.5V) and 8-bit Iso. DO(100mA)
<b>Storage</b>							
Storage	1*2.5" HDD SATA2 Bay, 3.0 Gbps, 1*mSATA Full-height card, support AHCI	1*2.5" HDD SATA2 Bay, 3.0 Gbps, 1*mSATA Full-height card, support AHCI	1*2.5" HDD SATA3 Bay, 6.0 Gbps, 1*mSATA Full-height card, support AHCI	1*3.5" HDD SATA2 Bay, 3.0 Gbps, 1*mSATA Full-height card, support AHCI	1*2.5" HDD SATA2 Bay, 3.0 Gbps, 1*mSATA Full-height card, support AHCI	1/2*2.5" HDD SATA3 Bay, 6.0 Gbps, 1*mSATA Full-height card, support AHCI	1*2.5" SATA3 Bay, 6.0 Gbps, SSD/HDD, 1*mSATA Full-height card, support AHCI
<b>Expansion</b>							
Expansion Port	1*Mini PCIe, with SIM slot, support 4G/Wifi/BT, 1*I-port(LPT/USB2.0/Mini PCIe)	1*Mini PCIe, with SIM slot, support 4G/Wifi/BT,	1*M.2 B-key, with SIM slot, support 4G/Wifi/BT, 1*I-port (LPT/USB2.0/Mini PCIe)	1*Mini PCIe, with SIM slot, support 4G/Wifi/BT	1*Mini PCIe, with SIM slot, support 4G/Wifi/BT	1*Mini PCIe, with SIM slot, 1*M.2 B-key with PCIe+USB signal &SIM slot,support dual 4G/Wifi/BT, 1*I-port(LPT/USB2.0/Mini PCIe)	1*Mini PCIe, with SIM slot, 1*M.2 B-key with PCIe+USB signal &SIM slot,support dual 4G/Wifi/BT, 1*I-port(LPT/USB2.0/Mini PCIe)
<b>Power Supply</b>							
Input voltage	DC IN 9~36V, D-Jack with M8 interface, short circuit protection, OVP&OCP	DC IN 9~36V, D-Jack with M8 interface, short circuit protection, OVP&OCP	DC IN 9~36V, D-Jack with M8 interface, short circuit protection, OVP&OCP	DC IN 9~36V, D-Jack with M8 interface, short circuit protection, OVP&OCP	DC IN 9~36V, D-Jack with M8 interface, short circuit protection, OVP&OCP	DC IN 9~30V, 3pin terminal, With reverse polarity protection, short circuit protection, OVP&OCP	DC IN 9~30V, 3pin terminal, With reverse polarity protection, short circuit protection, OVP&OCP
Power consumption	14.4W(2.5" HDD)	14.4W(2.5" HDD)	20.04W(E3940 CPU,4G DDR3L)	19.2W(3.5" HDD)	15.6W(2.5" HDD)	27.72W(I5-7200U 8GB)	27.72W(I5-7200U 8GB)
<b>Mechanical</b>							
Structure	Top/Bottom Aluminum Chassis, SGCC frame	Top/Bottom Aluminum Chassis, SGCC frame	Top/Bottom Aluminum Chassis, SGCC frame	U-shaped Aluminum Chassis, SGCC frame	U-shaped Aluminum Chassis, SGCC frame	Aluminum Chassis, SGCC frame	Aluminum Chassis, SGCC frame
Color	Silver gray	Silver gray	Silver gray	Silver gray	Silver gray	Silver gray	Silver gray
Installation	desktop mounting & VESA 100*100mm	desktop mounting &VESA 100*100mm	desktop mounting &VESA 100*100mm	desktop mounting	desktop mounting	desktop mounting	desktop mounting
Dimension(W*H*D)	155*111.8*65mm	155*111.6*49mm	155*111.8*65mm	210*144*82.7mm	210*144*82.7mm	210*144.3*75.5mm	210*144.3*75.5mm
Net Weight	1.30KG	1.05KG	1.30KG	2.60KG	2.60KG	2.20KG	2.20KG
<b>Environmental</b>							
Operating Temp	-20°C~65°C,fanless, wide temperature SSD -10°C~55°C,fanless, normal temperature HDD	-20°C~65°C,fanless, wide temperature SSD -10°C~55°C,fanless, normal temperature HDD	-20°C~70°C,fanless, wide temperature SSD -10°C~55°C,fanless, normal temperature HDD	-20°C~70°C,fanless, wide temperature SSD -10°C~55°C,fanless, normal temperature HDD	-20°C~70°C,fanless, wide temperature SSD -10°C~55°C,fanless, normal temperature HDD	-20°C~70°C,fanless, wide temperature SSD -10°C~50°C,fanless, normal temperature HDD	-20°C~70°C,fanless, wide temperature SSD -10°C~50°C,fanless, normal temperature HDD
Storage Temp	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C
Storage Humidity	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation
Vibration	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)
Shock	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)
Certificate/EMC	CE/FCC Class A	CE/FCC Class A	CE/FCC Class A	CE/FCC Class A	CE/FCC Class A	CE/FCC Class A	CE/FCC Class A
<b>OS</b>							
	Windows 7, Windows 8.1, Windows 10, Linux Fedora,Ubuntu	Windows 7, Windows 8.1, Windows 10, Linux Fedora,Ubuntu	Windows 7, Windows 8.1, Windows 10, Linux Fedora,Ubuntu	Windows 7, Windows 8.1, Windows 10, Linux Fedora,Ubuntu	Windows 7, Windows 8.1, Windows 10, Linux Fedora,Ubuntu	Windows 7, Windows 10, Linux Fedora,Ubuntu	Windows 7, Windows 10, Linux Fedora,Ubuntu
Watchdog timer	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second



	KMDA-3212	KMDA-3230	KMDA-3601	KMDA-3602	KMDA-3820	KMDA-3610	KMDA-3920	KMDA-3920ETC
<b>Processor</b>								
CPU	Intel Skylake-U/Kabylake-U CPU Celeron/Core i3/i5/i7	Intel® Whiskey lake U Celeron/Core i3/i5/i7	Intel Skylake-S/Kabylake-S Celeron/Pentium/Core i3/i5/i7, Q170 Chipset	Intel Skylake-S/Kabylake-S Celeron/Pentium/Core i3/i5/i7, Q170 Chipset	Intel Skylake-U 3855/Kabylake-U Celeron/Core i3/i5/i7	Intel Skylake-S/Kabylake-S Celeron/Pentium/Core i3/i5/i7, H110 Chipset	Intel Skylake-S/Kabylake-S Celeron/Pentium/Core i3/i5/i7 H110 Chipset,optional Q170 Chipset	Intel Skylake-S/Kabylake-S Celeron/Pentium/Core i3/i5/i7 H110 Chipset,optional Q170 Chipset
RAM	1*DDR4,SODIMM,2133MHz, Max.16GB	2*DDR4 SODIMM,2400MHz, Max. 32GB	2*260-Pin SODIMM, DDR4,2133MHz, Max. 32GB	2*260-Pin ,DDR4,2133/2400MHz, Max. 32GB	1*260-Pin ,DDR4,2133MHz, Max. 16GB	2*260-Pin ,DDR4,2133/2400MHz, Max. 32GB	2*260-Pin ,DDR4,2133/2400MHz, Max. 32GB	2*260-Pin ,DDR4,2133/2400MHz, Max. 32GB
Graphics	Intel Gen. 9th HDGraphics, HEVC/H265 HW HD codec, HDMI:4096*2304@24Hz, DP:4096*2304@60Hz,VGA:1920*1200@60Hz	Intel® Gen. 9 UHD Graphics,Support dual independent display HDMI:4096*2304@24Hz DP:4096*2304@60Hz	Intel Gen. 9 HD Graphics, HEVC/H265 HW HD codec,support 3 independent display DP:4096*2304@60Hz,VGA:2650*1600@60Hz, HDMI:3840*2160@30Hz,	Intel® Gen. 9 HD Graphics, HEVC/H265 HW HD codec, DP/HDMI support dual 4K HD display 1*MXM3.1 GPU module, support max. 120W power consumption GPU, 3*DP & 1*HDMI four 4K display	Intel Gen. 9th HD Graphics, HEVC/H265 HW HD codec, HDMI:4096*2304@24Hz, DP:4096*2304@60Hz,VGA:1920*1200@60Hz	Intel Gen. 9 HD Graphics,HEVC/H265 HW HD codec, HDMI:3840*2160@30Hz, DP:4096*2304@60Hz,VGA:1920*1200@60Hz, support 2 independent display+1 copy display	Intel Gen. 9 HD Graphics,HEVC/H265 HW HD codec, HDMI:3840*2160@30Hz, DP:4096*2304@60Hz,VGA:1920*1200@60Hz, support 3 independent display(Intel Q170)	Intel Gen. 9 HD Graphics,HEVC/H265 HW HD codec, HDMI:3840*2160@30Hz, DP:4096*2304@60Hz,VGA:1920*1200@60Hz, support 3 independent display(Intel Q170)
<b>I/O Port</b>								
LAN	2*Intel I211AT PCIe, 10/100/1000Mbps, 1*Intel I219 LM support Intel Vpro,	4*Intel I210AT PCIe, 10/100/1000Mbps, 1*Intel®I219LM	2*Intel I210AT PCIe,10/100/1000Mbps, 1*Intel I219 LM support Intel Vpro, 4*Intel I210AT Full bandwidth POE, optional 8/11*Gig LAN	2*Intel I210AT PCIe,10/100/1000Mbps, 1*Intel I219 LM support Intel Vpro, 4*Intel I210AT PCIe Full bandwidth POE, optional 4*LAN	2*Intel I211AT PCIe ,10/100/1000Mbps, 1*Intel I219 LM support Intel Vpro,	1*Intel I211AT PCIe ,10/100/1000Mbps, 1*Intel I219 LM,support Intel Vpro,	1*Intel I211AT PCIe ,10/100/1000Mbps, 1*Intel I219 LM support Intel Vpro(Intel Q170),	1*Intel I211AT PCIe ,10/100/1000Mbps, 1*Intel I219 LM support Intel Vpro(Intel Q170),
USB	4* USB3.0, 2*USB2.0 , 1*USB2.0 (Build-in)	4* USB3.1, 2*USB2.0	6* USB3.0, 2*USB2.0 , 1*USB2.0 (Build-in)	6* USB3.0, 2*USB2.0 , 1*USB2.0 (Build-in)	4* USB3.0, 2*USB2.0 , 1*USB2.0 (Build-in)	4* USB3.0, 2*USB2.0 , 1*USB2.0 (Build-in)	4* USB3.0, 2*USB2.0 , 1*USB2.0 (Build-in)	4* USB3.0, 1*USB2.0 (Build-in)
Display	1*DP+1*HDMI+1*VGA	1*DP+1*HDMI	1*DP+1*HDMI+1*VGA	1*DP+1*HDMI+1*VGA	1*DP+1*HDMI+1*VGA	1*DP+1*HDMI+1*VGA	1*DP+1*HDMI+1*VGA	1*DP+1*HDMI+1*VGA
Audio	1*Line out+1*Mic, optional audio	1*Line out+1*Mic, optional audio	1*Line out+1*Mic,optional audio	1*Line out+1*Mic,optional audio	1*Line out+1*Mic,optional audio	1*Line out+1*Mic,optional audio	1*Line out+1*Mic, optional audio	1*Line out+1*Mic, optional audio
Serial port/ Others	2*RS232/422/485, 2*RS232, 1*PS/2(mouse/keyboard)	2*RS485, 3*RS232,	2*RS232/422/485, 2*RS232,	2*RS232/422/485	2*RS232/422/485, 2*RS232, 1*PS/2(mouse/keyboard)	2*RS232/422/485, 2*RS232, 1*PS/2(mouse/keyboard)	2*RS232/422/485, 2*RS232, 1*PS/2(mouse/keyboard)	2*RS232/422/485, 2*RS232, 1*PS/2(mouse/keyboard)
DIO	8-bit TTL signal, Programmed input-output	8-bit iso DIO(4-bit 2.5KV optical Iso. DO,4-bit 2.5KV optical Iso. DI)	16/24-bit optical Iso. DIO optional 16-bit TTL Programmable input and output	16/24-bit optical Iso. DIO optional 16-bit TTL Programmable input and output	8-bit TTL signal, Programmable DIO optional 16-bit TTL Programmable input and output	8-bit TTL signal, Programmable DIO 16-bit TTL signal, Programmable DIO	8-bit TTL signal, Programmable DIO	16-bit Programmable DIO (2*10Pin) 16-bit Programmable DIO(DB25),TTL signal
<b>Storage</b>								
Storage	1*2.5" SATA3 Bay, 6.0 Gbps, SSD/HDD, 1*mSATA Full-height card, support AHCI	1*2.5" SATA port, 1*mSATA Full-height card, support AHCI	2*2.5" SATA,HDD/SSD, 1*mSATA Full-height card, 1*M.2 B-key with SIM slot	1*2.5" SATA3,HDD/SSD, 1*mSATA Full-height card, 1*M.2 B-key with SIM slot	1*2.5" SATA3,HDD/SSD, 1*mSATA Full-height card, support AHCI	2*2.5" SATA3,HDD, 1*mSATA Full-height card,1*M.2 2242 B-key	2*2.5" SATA3 HDD,support RAID0,1(Intel Q170), 1*mSATA,1*M.2 2242 B-key	2*2.5" SATA3 HDD,support RAID0,1(Intel Q170), 1*mSATA,1*M.2 2242 B-key
<b>Expansion</b>								
Expansion Port	1*Mini PCIe, with SIM slot, support 4G/Wifi/BT,	1*Mini PCIe, with SIM slot, support 3G/4G/Wifi/ BT/ GPRS,1*M.2 E-key 2230 Wifi/BT module expansion, 1*I-Port(LPT/USB2.0/Mini PCIe)	1*Mini PCIe, with SIM slot, 1*half length Mini PCIe,support dual 4G LTE/Wifi/BT, 1*I-Port(LPT/USB2.0/Mini PCIe)	1*Mini PCIe, with SIM slot,, 1*half length Mini PCIe,support dual 4G LTE/Wifi/BT & GPS/BDS 1*-port(LPT/USB2.0/Mini PCIe)	1*Mini PCIe, with SIM slot, support 4G/Wifi/BT,1* PCIe X4(X4 signal), 1*PCIe X4(X1signal),or 2*PCI 1*I-port(LPT/USB2.0/Mini PCIe...etc)	1*Mini PCIe, with SIM slot, support 4G/Wifi/BT	1*Mini PCIe, with SIM slot, support 4G LTE/Wifi/BT, 1*PCIe X16, 1*PCIe X4, or 2*PCI, 1*I-port(LPT/USB2.0/Mini PCIe)	1*Mini PCIe, with SIM slot, support 4G LTE/Wifi/BT, 1*PCIe X16,or 1*PCI
<b>Power Supply</b>								
Input voltage	DC IN 12~24V, 3pin terminal(front panel),	DC IN 9~36V, 3pin terminal,	DC 6~48V input,	DC 6~48V input,	DC 12~24V input,	DC 12~24V input,	DC 12~24V input,	DC 12~24V input,
Power consumption	58.56W(I5-7200U 16GB DDR4)	30W (I5-8265U , 8GB DDR4, 128GB SSD)	38W(I5-7500T , 4GB RAM, 128G SSD)	115.92W (I5-7500T +GTX 1060M GPU)	58.56W (I5-7200U 16GB DDR4)	68.4W (I7-6700T CPU 16GB DDR4)	68.78W (I7-6700T , 4GB DDR4, 1TB HDD,install card)	68.78W (I7-6700T , 4GB DDR4, 1TB HDD,install card)
<b>Mechanical</b>								
Structure	Aluminum Chassis, SGCC frame	Aluminum Chassis, SGCC frame	Aluminum Chassis, SGCC cover	Aluminum Chassis, SGCC frame and cover	Aluminum rectangular cooling plates, SGCC paint main cabinet	Aluminum rectangular cooling plates, SGCC paint main cabinet	Aluminum rectangular cooling plates, SGCC paint main cabinet	Aluminum rectangular cooling plates, SGCC paint main cabinet
Color	Silver gray	Silver gray	Silver gray	Silver gray	Silver gray	Silver gray	Silver gray	Silver gray
Installation	desktop mounting	desktop mounting	desktop mounting	desktop mounting,Anti-vibration plane	desktop mounting	desktop mounting	desktop mounting,wall-mount	desktop mounting,wall-mount
Dimension (W*H*D)	200*200*85.3mm	210*147*78mm	284*222*84.7mm	284*222*81mm	200*200*128.3mm	221*251*88mm	220*250*131mm	220*250*131.5mm
Net Weight	3.3KG	2.29KG	4.65KG	5.60KG(with Shock-absorbing chassis,no GPU)	3.65KG	4.84KG	5.27KG	5.27KG
<b>Environmental</b>								
Operating Temp	-20°C~70°C,fanless, wide temperature SSD -10°C~50°C,fanless, normal temperature HDD	-20°C~70°C,fanless, wide temperature SSD -10°C~50°C,fanless, normal temperature HDD	-20°C~65°C,fanless, wide temperature SSD -10°C~55°C,fanless, normal temperature HDD	-20°C~65°C,fanless, wide temperature SSD -10°C~50°C,fanless, normal temperature HDD	-20°C~70°C,fanless, wide temperature SSD -10°C~50°C,fanless, normal temperature HDD	-20°C~65°C,fanless, wide temperature SSD -10°C~55°C,fanless, normal temperature HDD	-20°C~65°C,fanless, wide temperature SSD -10°C~55°C,fanless, normal temperature HDD	-20°C~65°C,fanless, wide temperature SSD -10°C~55°C,fanless, normal temperature HDD
Storage Temp	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C
Storage Humidity	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation
Vibration	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5.5 grms/5~500Hz/random/operation (SSD) 1.5 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)
Shock	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)
Certificate /EMC	CE/FCC Class A	CE/FCC Class B	CE/FCC Class B	CE/FCC Class B,E-Mark	CE/FCC Class A	CE/FCC Class B	CE/FCC Class B	CE/FCC Class B
<b>OS</b>								
OS	Windows 7, Windows 10, Linux Fedora,Ubuntu	Windows 10, SUSE, Ubuntu, Wind River, Red Hat Enterprise	Windows 7, Windows 10, Linux Fedora,Ubuntu	Windows 7, Windows 10, Linux Fedora,Ubuntu	Windows 7, Windows 10, Linux Fedora,Ubuntu	Windows 7, Windows 10, Linux Fedora,Ubuntu	Windows 7, Windows 10, Linux Fedora,Ubuntu	Windows 7, Windows 10, Linux Fedora,Ubuntu
Watchdog timer	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second

# Product Listing



	KMDA-3921	KMDA-5610/S001	KMDA-5920/S001	KMDA-5920/S002	KMDA-5921/S001	KMDA-5921/S002	SCC-3116	PADA-M101	
<b>Processor</b>									
CPU	Intel Skylake-S/Kabylake-S Celeron/Pentium/Core i3/i5/i7 H110 Chipset, optional Q170 Chipset	Intel® Coffee lake 9th/8th-Gen Core™ i7/i5/i3/Pentium/Celeron LGA1151 processor H310 chipset	Intel® Coffee lake 9th/8th-Gen Core™ i7/i5/i3/Pentium/Celeron LGA1151 processor H310 chipset	Intel® Coffee lake 9th/8th-Gen Core™ i7/i5/i3/Pentium/Celeron LGA1151 processor Q370 chipset	Intel® Coffee lake 9th/8th-Gen Core™ i7/i5/i3/Pentium/Celeron LGA1151 processor H310 chipset	Intel® Coffee lake 9th/8th-Gen Core™ i7/i5/i3/Pentium/Celeron LGA1151 processor Q370 chipset	Intel® Baytrail-D Celeron J1900 , frequency 2.0~2.42GHz, quad-core with 4 threads, 2M cache, 22nm, TDP 10W	8th-Gen Intel® Core™ i3/i5/i7/Celeron U	
RAM	2*260-Pin ,DDR4,2133/2400MHz, Max. 32GB	2*260-Pin ,DDR4,2400/2666MHz, Max. 64GB	2*260-Pin ,DDR4,2400/2666MHz, Max. 64GB	4*260-Pin ,DDR4,2400/2666MHz, Max. 128GB	2*260-Pin ,DDR4,2400/2666MHz, Max. 64GB	4*260-Pin ,DDR4,2400/2666MHz, Max. 128GB	1*DDR3L, 1333MHz SODIMM, Max. 8GB	2*DDR4, 2400MHz, Max. 32GB	
Graphics	Intel Gen. 9 HD Graphics,HEVC/H265 HW HD codec, HDMI:3840*2160@30Hz, DP:4096*2304@60Hz,VGA:1920*1200@60Hz, support 3 independent display (Intel Q170)	Intel UHD Graphics, Supports DirectX11.1, OpenGL 5.0 and OpenCL 2.1 or PCIe X16, DP:4096*2304@60Hz,VGA:1900*1200@60Hz, HDMI:3840*2160@30Hz(2 independent displays, 1 Copy Display)	Intel UHD Graphics, Supports DirectX11.1, OpenGL 5.0 and OpenCL 2.1 or PCIe X16, DP:4096*2304@60Hz, VGA:1900*1200@60Hz, HDMI:3840*2160@30Hz(2 independent displays, 1 Copy Display)	Intel UHD Graphics, Supports DirectX11.1, OpenGL 5.0 and OpenCL 2.1 or PCIe X16, DP:4096*2304@60Hz, VGA:1900*1200@60Hz, support 3 independent display	Intel UHD Graphics, Supports DirectX11.1, OpenGL 5.0 and OpenCL 2.1 or PCIe X16, DP:4096*2304@60Hz,VGA:1900*1200@60Hz, HDMI:4096*2160@30Hz(2 independent displays, 1 Copy Display)	Intel UHD Graphics, Supports DirectX11.1, OpenGL 5.0 and OpenCL 2.1 or PCIe X16, DP:4096*2304@60Hz,VGA:1900*1200@60Hz, HDMI:4096*2160@30Hz(2 independent displays, 1 Copy Display)	Intel UHD Graphics, Supports DirectX11.1, OpenGL 5.0 and OpenCL 2.1 or PCIe X16, DP:4096*2304@60Hz, VGA:1900*1200@60Hz, support 3 independent display	Intel HD Graphics, VGA : 1920*1200@60Hz, HDMI:1920*1080@60Hz,Support dual independent display, support OpenGL 3.2, DirectX 11, OpenCL 1.2, MPGE2/H.264	Intel® Gen. 9 UHD Graphics,Support dual independent display HDMI :4096*2304@24Hz, DP:4096*2304@60Hz
<b>I/O Port</b>									
LAN	1*Intel I211AT PCIe ,10/100/1000Mbps, 1*Intel I219 LM. support Intel Vpro(Intel Q170),1*Intel I219 LM,	1*Intel I210AT PCIe ,10/100/1000Mbps, 1*Intel I219 LM,	1*Intel I210AT PCIe ,10/100/1000Mbps, 1*Intel I219 LM,	2*Intel I210AT PCIe ,10/100/1000Mbps, 1*Intel I219 LM, support Intel Vpro	1*Intel I210AT PCIe ,10/100/1000Mbps, 1*Intel I219 LM	2*Intel I210AT PCIe ,10/100/1000Mbps, 1*Intel I219 LM support Intel Vpro	3*Intel I211AT PCIe, 10/100/1000Mbps,	2*Intel I210AT PCIe,	
USB	4* USB3.0, 2*USB 2.0, 1*USB2.0 (Build-in)	4* USB3.1, 2*USB2.0, 1*USB2.0(Build-in)	4* USB3.1, 2*USB2.0, 1*USB2.0(Build-in)	6* USB3.1, 2* USB2.0, 2*USB2.0(Build-in)	4* USB3.1, 2*USB2.0, 1*USB2.0(Build-in)	6* USB3.1, 2*USB2.0, 2*USB2.0(Build-in)	1* USB3.0, 6*USB2.0 , 1*USB2.0 (Build-in)	4*USB3.0	
Display	1*DP+1*HDMI+1*VGA	1*DP+1*HDMI+1*VGA	1*DP+1*HDMI+1*VGA	2*DP+1*VGA	1*DP+1*HDMI+1*VGA	2*DP+1*VGA	1*HDMI+1*VGA	1*DP+1*HDMI	
Audio	1*Line out+1*Mic, optional audio	1*Line out+1*Mic, optional audio	1*Line out+1*Mic, optional audio	1*Line out+1*Mic, optional audio	1*Line out+1*Mic, optional audio	1*Line out+1*Mic, optional audio	1*Line out+1*Mic, optional audio	1*Line out+1*Mic, optional audio	
Serial port/ Others	2*RS232/422/485 , 2*RS232, 1*PS/2(mouse/keyboard)	2*RS232/422/485, 2*RS232,	2*RS232/422/485, 2*RS232,	2*RS232/422/485, 2*RS232,	2*RS232/422/485, 2*RS232,	2*RS232/422/485, 2*RS232,	4*RS232/422/485, 1*RS232, 1*PS/2 (mouse/keyboard)	2*RS232/422/485, 1*RS232,	
DIO	8-bit DIO(2*5Pin) 16-bit DIO(build-in),TTL signal, programmable input & output	16-bit iso DIO: 8-bit Iso. DI(High:5-24V,Low:0-1.5V) and 8-bit Iso. DO(200mA)	16-bit iso DIO: 8-bit Iso. DI(High:5-24V,Low:0-1.5V) and 8-bit Iso. DO(200mA)	16-bit iso DIO: 8-bit Iso. DI(High:5-24V,Low:0-1.5V) and 8-bit Iso. DO(200mA)	16-bit iso DIO: 8-bit Iso. DI(High:5-24V,Low:0-1.5V) and 8-bit Iso. DO(200mA)	16-bit iso DIO: 8-bit Iso. DI(High:5-24V,Low:0-1.5V) and 8-bit Iso. DO(200mA)	8-bit Programmable DIO(DB9),TTL signal	8-bit Programmable DIO(DB9),TTL signal	
<b>Storage</b>									
Storage	2*2.5" SATA3,HDD,support RAID0,1(Intel Q170), 1*mSATA,1*M.2 2242 B-key	2*2.5" SATA3,HDD, 1*mSATA,with SIMslot,support 4G	2*2.5" SATA3,HDD, 1*mSATA,with SIM slot ,support 4G	2*2.5" SATA3,support RAID0,1, 1*M.2 M-Key,PCIex4 Gen3.0, support NVME storage	2*2.5" SATA3,HDD, 1*full length Msata with SIM slot,support 4G	2*2.5" SATA3, support RAID0,1, 1*M.2 M-Key,PCIex4 Gen3.0, support NVME storage	1*2.5" SATA2,HDD/SSD, 1*mSATA full-height card,support AHCI mode	1*2.5" SATA,support max.15mm disk	
<b>Expansion</b>									
Expansion Port	1*Mini PCIe, with SIM slot, support 4G/Wifi/BT, 1*PCIeX16,1*PCIe X4(X1 signal)+2*PCI, or 2*PCIeX16(X8 signal)+1*PCIeX8(X4 signal) 1*I-port(LPT/USB2.0/16-bit DIO/Mini PCIe)	1*M.2 E-Key 2230, Support Gigabit WFI module, 1*I-port(LPT/USB2.0/16-bit DIO/Mini PCIe)	1*M.2 E-Key 2230, Support Gigabit WFI module, 1*PCIe X16, 1*PCIe X4, 1*I-port(LPT/USB2.0/16-bit DIO/Mini PCIe)	1*M.2 B-Key,with SIM slot. support5G, 1*M.2 E-Key, 1*PCIe X16,1*PCIe X4, 1*Mini PCIe,with SIM slot. support4G/WIFI/BT 1*I-port(LPT/USB2.0/16-bit DIO/Mini PCIe)	1*M.2 E-Key 2230, Support Gigabit WFI module/BTS.0 1*PCIe X16, 1*PCIe X4 , 2*32-bit PCI 1*I-port(LPT/USB2.0/16-bitDIO/Mini PCIe)	1*M.2 B-Key,with SIM slot. support 5G, 1*M.2 E-Key, 1*Mini PCIe,with SIM slot. support4G/WIFI/BT, 1*I-port(LPT/USB2.0/16-bit DIO/Mini PCIe), 2*PCIe X8,2*PCIe X4 or 1*PCIe X16,1*PCIe X4,2*PCI	1*Mini PCIe, with SIM slot, support 4G/Wifi/BT,	1*Mini PCIe, with SIM slot, support 4G/Wifi/BT, 1*M.2 E-Key,Wifi/BT module expansion	
<b>Power Supply</b>									
Input voltage	DC 12~24V input,	DC IN 9-36V 3-pin Term. 7.62mm, with protection of short circuit, over voltage, over current	DC IN 9-36V 3-pin Term. 7.62mm, with protection of short circuit, over voltage, over current	DC IN 9-36V 3-pin Term. 7.62mm, with protection of short circuit, over voltage, over current	DC IN 9-36V 3-pin Term. 7.62mm, with protection of short circuit, over voltage, over current	DC IN 9-36V 3-pin Term. 7.62mm, with protection of short circuit, over voltage, over current	DC IN 9-36V D-Jack/M8,with protection of short circuit, over voltage, over current	DC 12V, 3-pin terminal, optional 9~36V wide voltage power supply, 27.9W(I7-8565U,16GB DDR,1*4T SSD)	
Power consumption	68.78W (I7-6700T , 4GB DDR4, 1TB HDD)	96W(I7-8700 ,32G DDR4,128G SSD)	60.5W(I7-8700T,16G DDR4,128G SSD)	60.5W(I7-8700T,16G DDR4,128G SSD)	48.5W(I7-9700,16G DDR4,128G SSD)	48.5W(I7-9700,16G DDR4,128G SSD)	14.4W(2.5" HDD)		
<b>Mechanical</b>									
Structure	Aluminum Chassis, SGCC frame	Aluminum Chassis, SGCC frame	Aluminum Chassis, SGCC frame	Aluminum Chassis, SGCC frame	Aluminum Chassis, SGCC frame	Aluminum Chassis, SGCC frame	Aluminum Chassis, SGCC frame	SGCC	
Color	Silver gray	Silver white + Aquamarine	Silver white + Aquamarine	Silver white + Aquamarine	Silver white + Aquamarine	Silver white + Aquamarine	Silver gray	dark grey + pastel blue	
Installation	desktop mounting,wall-mount	desktop mounting	desktop mounting	desktop mounting	desktop mounting	desktop mounting	desktop mounting	desktop mounting	
Dimension (W*H*D)	220*250**172mm	230*267.3*92mm	230*273*143mm	230*273*143mm	230*273*204mm	230*273*204mm	268*160*57.6mm	200*140*67.5mm	
Net Weight	5.58KG	5.1KG	5.9KG	5.9KG	7.25KG	7.25KG	2.15KG	1.51KG	
<b>Environmental</b>									
Operating Temp	-20°C~65°C,fanless, wide temperature SSD -10°C~55°C,fanless, normal temperature HDD	-20°C~60°C,fanless, wide temperature SSD -10°C~55°C,fanless, normal temperature HDD	-20°C~60°C,fanless, wide temperature SSD -10°C~55°C,fanless, normal temperature HDD	-20°C~60°C,fanless, wide temperature SSD -10°C~55°C,fanless, normal temperature HDD	-20°C~60°C,fanless, wide temperature SSD -10°C~55°C,fanless, normal temperature HDD	-20°C~60°C,fanless, wide temperature SSD -10°C~55°C,fanless, normal temperature HDD	-20°C~65°C,fanless, wide temperature SSD -10°C~55°C,fanless, normal temperature HDD	-20°C~70°C, fanless, wide-temperature SSD	
Storage Temp	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	
Storage Humidity	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation	10~90%@40°C, No- condensation	
Vibration	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	5 grms/5~500Hz/random/operation (SSD) 1 grms/5~500Hz/random/operation (HDD)	
Shock	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	50g peak acceleration(duration 11ms,SSD) 20g peak acceleration(duration 11ms,HDD)	
Certificate /EMC	CE/FCC Class B	CE/FCC Class B	CE/FCC Class B	CE/FCC Class B	CE/FCC Class B	CE/FCC Class B	CE/FCC Class A	CE/FCC Class B	
OS	Windows 7, Windows 10, Linux Fedora,Ubuntu	Windows 10 Enterprise & IOT Enterprise(64-bit) Ubuntu, SuSe, Redhat Enterprise 1,2 (Kernel 4.14) Wind River VxWorks 7	Windows 10 Enterprise & IOT Enterprise (64-bit) Ubuntu, SuSe, Redhat Enterprise 1,2 (Kernel 4.14) Wind River VxWorks 7	Windows 10 Enterprise & IOT Enterprise (64-bit) Ubuntu, SuSe, Redhat Enterprise 1,2 (Kernel 4.14) Wind River VxWorks 7	Windows 10 Enterprise & IOT Enterprise (64-bit) Ubuntu, SuSe, Redhat Enterprise 1,2 (Kernel 4.14) Wind River VxWorks 7	Windows 10 Enterprise & IOT Enterprise (64-bit) Ubuntu, SuSe, Redhat Enterprise 1,2 (Kernel 4.14) Wind River VxWorks 7	Windows 7, Windows 8.1, Windows 10, Linux Fedora Ubuntu	Windows 10, SUSE, Ubuntu, Wind River, Red Hat Enterprise	
Watchdog timer	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second	Watchdog timeout programmable via software 1 to 255 second	



# KMDA-2602

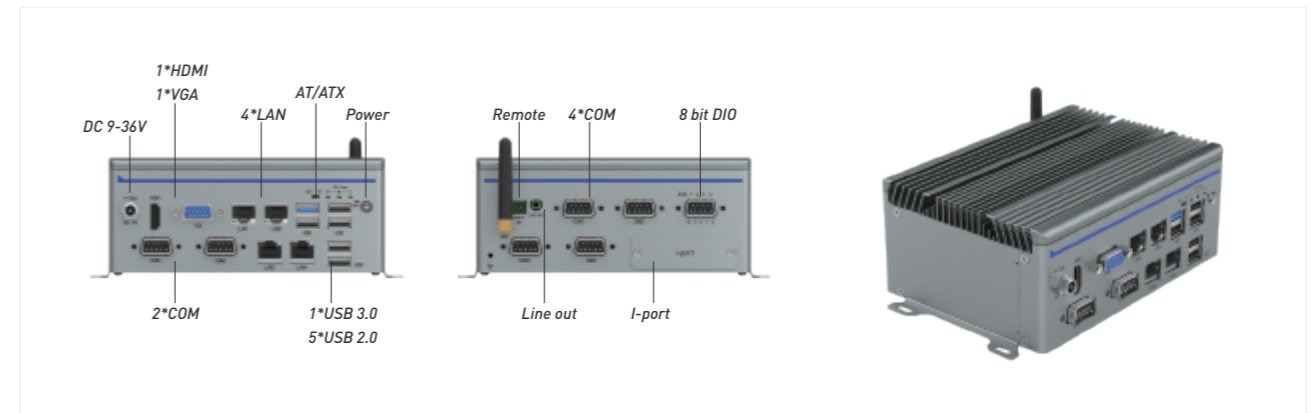
Intel Celeron J1900 CPU, 4\*LAN, 7\*USB, 6\*COM, Dual display,DC-IN 9~36V,LED Temperature control display

## Key Specification

- Compact Aluminum Chassis, fanless heat dissipation design
- Intel Baytrail Celeron J1900 2.0-2.42G CPU
- 1\*DDR3L 1333MHz SODIMM RAM, Max. 8GB
- 4\*Intel I211-AT PCIe Gig LAN
- 1\*HDMI & 1\*VGADual display, Audio Line out
- 1\*USB3.0, 6\*USB2.0,6\*COM, 8-bit DIO
- 1\*Mini PCIe(PCle+USB)
- 1\*2.5" SATA2 bay,1\*Mini PCIe(SATA+USB)
- DC 9~36V wide voltage power supply



## I/O View



## Product Overview

KMDA-2602 is a compact box PC, equipped with low-power processor, HDMI and VGA dual display,2\*Mini PCIe internal expansion,1\*2.5" SATA storage.DC 9~36V wide voltage power supply, Real-time operating temperature LED simulation display, It is economical and applicable with high reliability, which is suitable for equipment automation and IoT signal acquisition, etc.

## Product Parameters

### Processor

CPU Intel Baytrail-D Celeron J1900 , frequency 2.0~2.42GHz, 4C4T, 2M cache, 22nm, TDP 10W

RAM 1\*DDR3L,1333MHz,SODIMM, Max. 8GB

Graphics Intel HD Graphics, Support dual independent display  
VGA:1920\*1200@60Hz,  
HDMI:1920\*1080@60Hz, support OpenGL 3.2, DirectX 11, OpenCL 1.2, MPGE2/H.264

### I/O Port

LAN 4\*Intel I211AT PCIe Gigabit Ethernet, 10/100/1000Mbps

USB 1\* USB3.0, 5\*USB2.0 , 1\*USB2.0 (Build-in)

Display 1\*HDMI+ 1\*VGA

Audio 1\*Line out,optional audio

Serial port/ Others 2\*RS232/422/485, 2\*RS232(rear panel), 2\*RS232/485(front panel),1\*2pin terminal, remote switch signal, USB(mouse/keyboard)

DIO 8-bit TTL, programmable input & output

### Storage

Storage 1\*2.5" HDD SATA2 bay, 3.0 Gbps,  
1\*mSATA Full-height card, support AHCI

### Others

Indicator light 1\*power indicator, 1\*hard disk indicator, 3\*CPU temperature indicator (Red is high temperature, Yellow is normal temperature, Green is low temperature)

Control switch 1\*power switch (front panel), 1\*2pin terminal switch signal (rear panel), 1\*AT/ATX selector switch (front panel)

Watchdog Programmable timeout interrupt or system reset, 1 to 255 seconds timer

### Expansion

Expansion Port 1\*Mini PCIe, with SIM slot, support 4G LTE. Wifi/BT,  
1\*Mini PCIe with USB+SATA3 signal,  
I-Port 1\*USB2.0 or Mini PCIe interface(i.e. CAN Bus & Gig. LAN)

### Power Supply

Input voltage DC IN 9~36V, D-Jack with M8 interface,  
with protection of short circuit, over voltage, over current  
Power consumption 14.4W(2.5" HDD)

### Mechanical

Sturcture Top/Bottom Aluminum Chassis, SGCC frame

Color Silver gray

Installation desktop mousing & VESA 100\*100mm

Dimension (W\*H\*D) 155\*111.8\*65mm

Net Weight 1.30KG

### Environmental

Operating Temp -20°C~65°C – fanless design, wide-temperature SSD  
-10°C~55°C – fanless design, normal temperature HDD

Storage Temp -40°C~85°C

Storage Humidity 10~90%@40°C, No- condensation

Vibration 5 grms/5~500Hz/random/during operation (SSD)  
1 grms/5~500Hz/random/during operation (HDD)

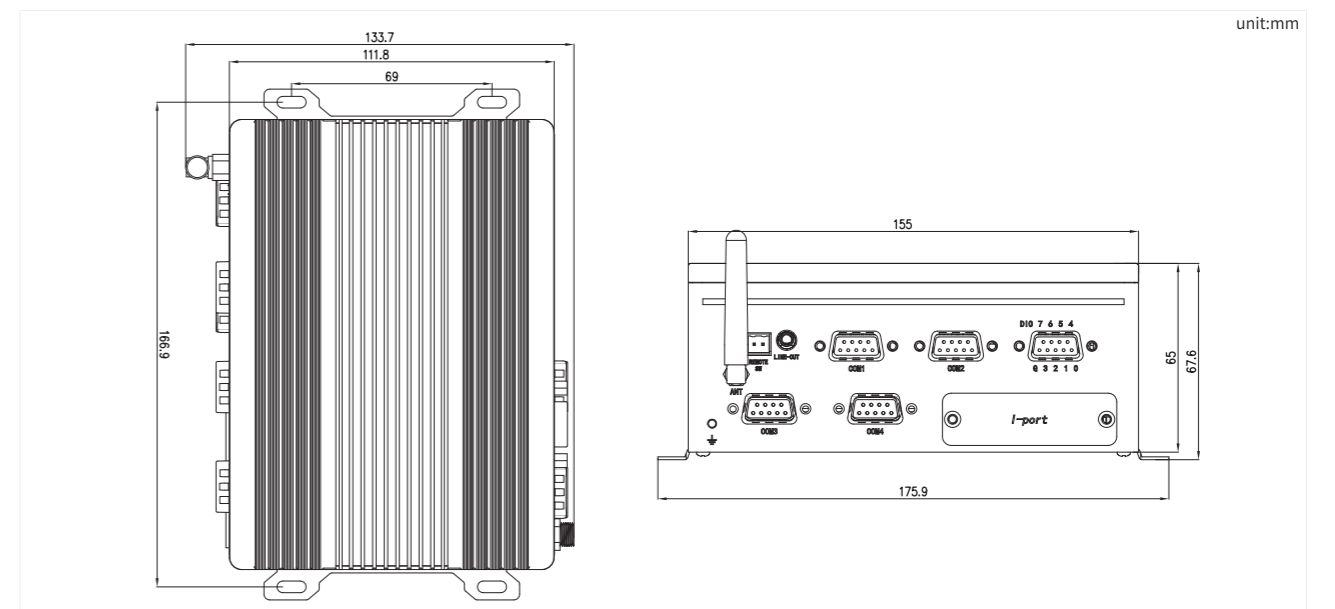
Shock 50g peak acceleration(duration 11ms) with SSD,  
20g peak acceleration(duration 11ms) with HDD

Certificate/EMC CE/FCC Class A

### OS

Operating System Windows 7, Windows 8.1, Windows 10,  
Linux Fedora,Ubuntu

## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-2602/S002	Intel® J1900 CPU	4*LAN, 1*USB3.0, 6*USB2.0,6*COM, 8-bit DIO, 1*HDMI, 1*VGA, 1*Line out, 2*Mini PCIe(One of them shares slots with mSATA), 1*I-port, 1*2.5" SATA bay, DC 9~36V
KMDA-2602/T001	Intel® J1900 CPU	2*LAN, 1*USB3.0, 4*USB2.0,4*COM, 8-bit DIO, 1*HDMI, 1*VGA, 1*Line out, 2*Mini PCIe(One of them shares slots with mSATA), 1*I-port, 1*2.5" SATA bay, DC 9~36V
PA-60DC12		AC/DC adaptor, DC12V/5A 60W



# KMDA-2602/T002

Intel® Celeron J1900 CPU, 2\*LAN, 4\*USB, 8-bit DIO, 2\*COM, Dual independent display, support Din Rail mounting

## Key Specification

- Compact Aluminum Chassis, fanless heat dissipation design
- Intel® Baytrail Celeron J1900 2.0-2.42G CPU
- 1\*DDR3L 1333MHz SODIMM RAM, Max. 8GB
- 2\*Intel I211-AT PCIe Gig LAN
- 1\*HDMI & 1\*VGA Dual display, Audio Line out
- 1\*USB3.0, 3\*USB2.0, 2\*COM, 8-bit DIO
- 1\*Mini PCIe(PCIE+USB)
- 1\*2.5" SATA2 bay, 1\*Mini PCIe(SATA+USB)
- DC 9~36V wide voltage power supply
- Compact and thin structure design, support rail installation, flexible and convenient



## Product Overview

KMDA-2602-T002 is a compact box PC with thin and light design, which can support Din Rail mounting, flexible and convenient. 2\*Mini PCIe internal expansion, 2.5" SATA storage. DC9-36V wide voltage power supply, real-time working temperature LED simulation display, economical and high reliability, suitable for equipment automation and IoT data acquisition.

## Product Parameters

### Processor

CPU Intel Baytrail-D Celeron J1900, frequency 2.0~2.42GHz, 4C4T, 2M cache, 22nm, TDP 10W

RAM 1\*DDR3L, 1333MHz, SODIMM, Max. 8GB

Graphics Intel HD Graphics, Support dual independent display  
VGA: 1920\*1200@60Hz,  
HDMI: 1920\*1080@60Hz, support OpenGL 3.2, DirectX 11, OpenCL 1.2, MPGE2/H.264

### I/O Port

LAN 2\*Intel I211AT PCIe Gigabit Ethernet, 10/100/1000Mbps

USB 1\* USB3.0, 3\*USB2.0

Display 1\*HDMI+1\*VGA

Audio 1\*Line out, optional audio, 1\*3W Speaker pin

Serial port/ 2\*RS232/422/485(rear panel),

Others 1\*2 pin terminal, Remote switch, USB mouse/keyboard

DIO 8-bit TTL, programmable input & output

### Storage

Storage 1\*2.5" HDD SATA2 bay, 3.0 Gbps, 1\*msATA Full-height card, support AHCI

### Others

Indicator 1\*power indicator, 1\*hard disk indicator, 3\*CPU temperature indicator (Red is high temperature, Yellow is normal temperature, Green is low temperature)

Control switch 1\*power switch (front panel), 1\*2pin terminal switch signal (rear panel), 1\*AT/ATX selector switch (front panel)

Watchdog timer Programmable timeout interrupt or system reset, 1 to 255 seconds

### Expansion

Expansion Port 1\*Mini PCIe, with SIM slot, support 4G LTE, Wifi/BT, 1\*Mini PCIe with USB+SATA3 signal

### Power Supply

Input voltage DC IN 9~36V, D-Jack. D-Jack with M8 interface, short circuit protection, OVP&OCP

Power consumption 14.4W(2.5" HDD)

### Mechanical

Structure Top/Bottom Aluminum Chassis, SGCC frame

Color Silver gray

Installation desktop mouning, Din-rail mounting (optional)

Dimension (W\*H\*D) 155\*111.6\*49mm

Net Weight 1.05KG

### Environmental

Operating Temp. -20°C~65°C - fanless design, wide-temperature SSD

-10°C~55°C - fanless design, normal temperature HDD

Storage Temp. -40°C~85°C

Storage Humidity 10~90%@40°C, No- condensation

Vibration 5 grms/5~500Hz/random/during operation (SSD)

1 grms/5~500Hz/random/during operation (HDD)

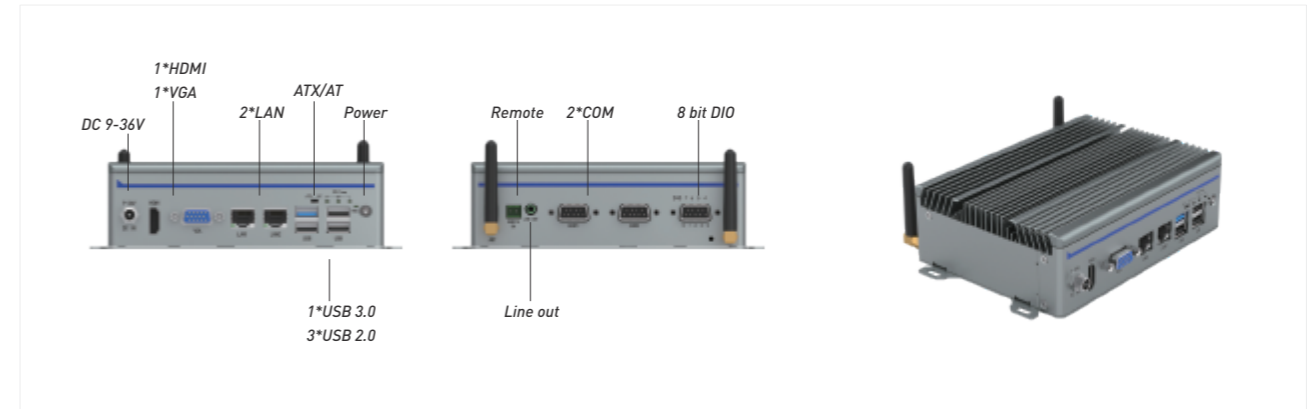
Shock 50g peak acceleration(duration 11ms) with SSD, 20g peak acceleration(duration 11ms) with HDD

Certificate/EMC CE/FCC Class A

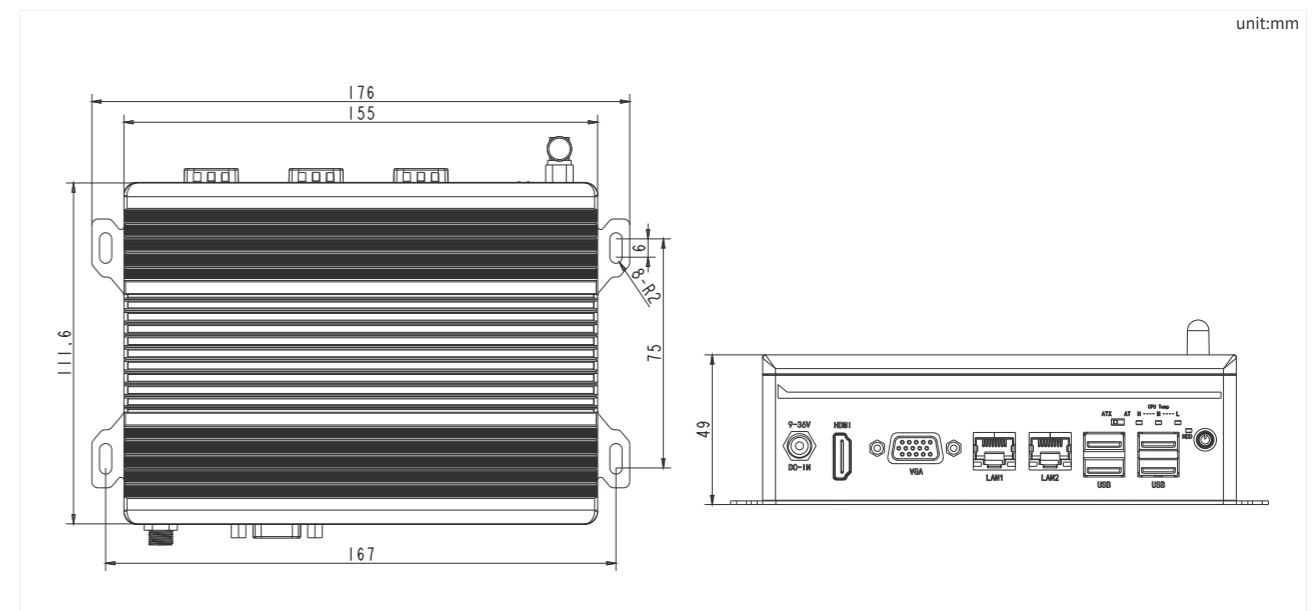
### OS

Operating system Windows 7, Windows 8.1, Windows 10, Linux Fedora, Ubuntu

## I/O View



## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-2602/T002	Intel® J1900 CPU	2*LAN, 1*USB3.0, 3*USB2.0, 2*COM, 8-bit DIO, 1*HDMI, 1*VGA, 1*Line out, 2*Mini PCIe, 1*2.5" SATA bay, DC 9~36V
PA-120DC19		AC/DC adaptor, DC 12V/5A 60W
Din-rail mounting module		KMDA-2602-T002 Din-rail mounting module

# KMDA-2620

Intel® Apollolake E3940 CPU, 4\*LAN, 7\*USB, 8-bit DIO, 6\*COM,4K Dual independent display,LED Temperature control display,DC-IN 9-36V

## Key Specification

- Compact Aluminum Chassis, fanless heat dissipation design
- Intel® Apollolake Atom E3940 CPU
- 1\*DDR3L 1866MHz SODIMM RAM, Max. 8GB
- 4\*Intel I211-AT PCIe Gig LAN
- 1\*HDMI & 1\*VGA 4K Dual display, Audio Line out
- 2\*USB3.0, 5\*USB2.0,6\*COM, 8位DIO
- 1\*M.2 2242 B-key
- 1\*2.5" SATA3 bay, 1\*mSATA
- Aluminum cover for HDD heat dissipation, increasing hard disk operating temperature (3-5°C)
- DC 9~36V wide voltage power supply



## Product Overview

KMDA-2620 is a compact box PC equipped with Intel® Apollolake Atom E3940 CPU, HDMI and DP dual 4K displays, 8-bit DIO, 1 M.2 2242 B-key, 1 mSATA and 1 2.5-inch SATA Disk storage. DC9-36V wide voltage power supply, real-time working temperature LED simulation display, economical and high reliability, suitable for equipment automation and IoT data acquisition...etc

## Product Parameters

### Processor

CPU	Intel® Apollolake Atom E3940 CPU
RAM	1*DDR3L, 1866MHz, SODIMM, Max. 8GB
Graphics	Gen. 9th Intel HD Graphics, DP: 4096*2160@60Hz, HDMI: 3840*2160@30Hz, support OpenGL 4.3, DirectX 11, OpenCL 2.0, MPGE2, H.265
LAN	4/2*Intel I211AT PCIe Gigabit Ethernet, 10/100/1000Mbps
USB	2* USB3.0, 4/2*USB2.0, 1*USB2.0 (Build-in)
Display	1*DP+1*HDMI
Audio	1*Line out, optional audio
Serial port/ Others	4/2*RS232/422/485, 2*RS232, 1*2 pin terminal, Remote switch, USB mouse/keyboard
DIO	8-bit TTL, programmable input & output

### Storage

Storage	1*2.5"HDD SATA3 bay, 6.0 Gbps, 1*mSATA Full-height card, support AHCI
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### Others

Indicator	1*power indicator, 1*HDD indicator, 3*CPU temperature indicator (Red is high temperature, Yellow is normal temperature, Green is low temperature)
Control switch	1*power switch (front panel), 1*2pin terminal switch signal(rear panel), 1*AT/ATX selector switch (front panel)
Watchdog timer	Programmable timeout interrupt or system reset, 1 to 255 seconds

### Expansion

Expansion Port	1*M.2 B-key with PCIe+USB signal & SIM slot, support dual 4G/Wifi/BT,
Input voltage	I-Port 1*USB2.0 or Mini PCIe interface(i.e. CAN Bus & Gig. LAN)
Power consumption	DC IN 9~36V, with protection of short circuit, over voltage, over current 20.04W(E3940 CPU, 4G DDR3L)

### Mechanical

Sturcture	Top/Bottom Aluminum Chassis, SGCC frame
Color	Silver gray
Installation	desktop mouning & VESA 100*100mm
Dimension(W*H*D)	155*111.8*65mm
Net Weight	1.30KG

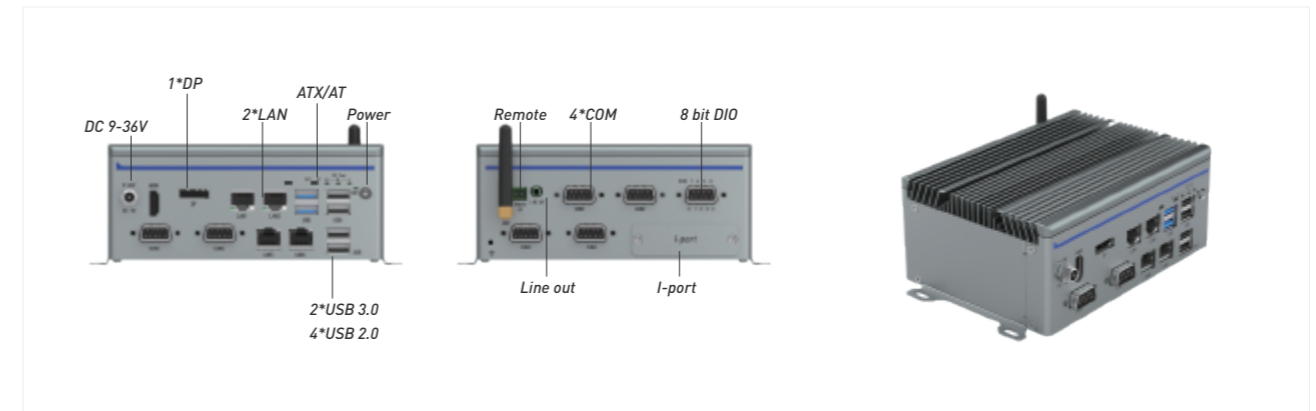
### Environmental

Operating Temp	-20°C~70°C – fanless design, wide-temperature SSD -10°C~55°C – fanless design, normal temperature HDD
Storage Temp	-40°C~85°C
Storage Humidity	10~90%@40°C, No- condensation
Vibration	5 grms/5~500Hz/random/during operation (SSD) 1 grms/5~500Hz/random/during operation (HDD)
Shock	50g peak acceleration(duration 11ms) with SSD, 20g peak acceleration(duration 11ms) with HDD
Certificate/EMC	CE/FCC Class A

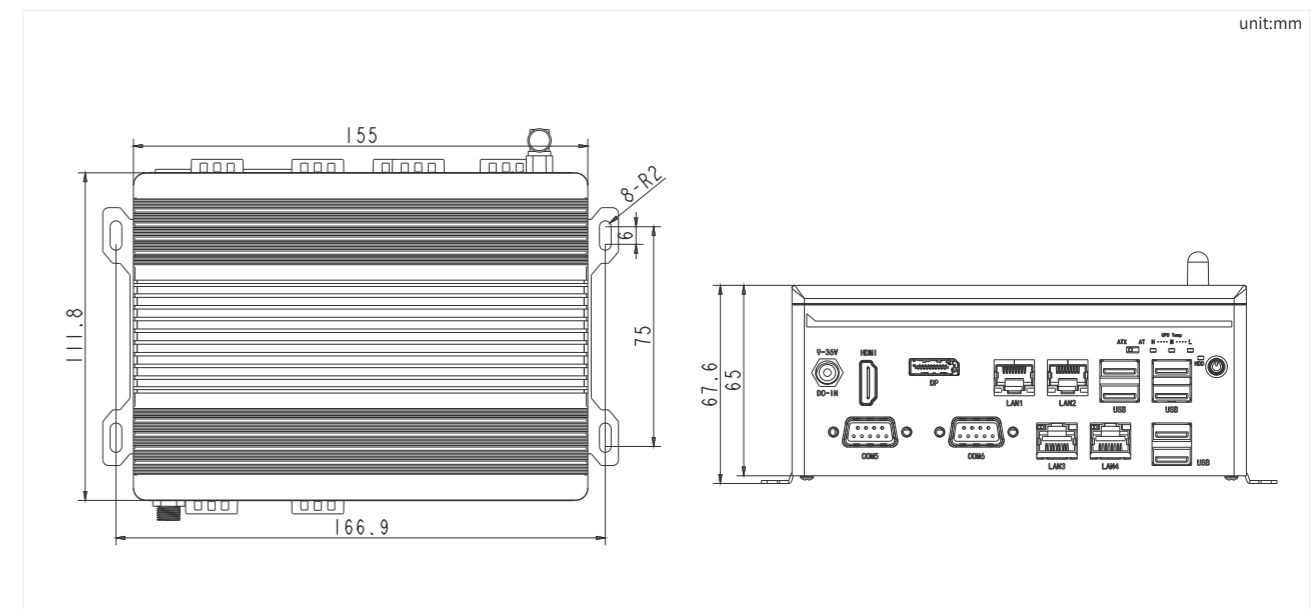
### OS

Operating system	Windows 7, Windows 8.1, Windows 10, Linux Fedora, Ubuntu
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## I/O View



## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-2620/S001	Intel® Apollolake Atom E3940 CPU	4*LAN, 2*USB3.0, 5*USB2.0, 6*COM, 8-bit DIO, 1*HDMI, 1*DP, 1*Line out, 1*M.2, 1*mSATA, 1*I-port, 1*2.5" SATA bay, DC 9~36V
KMDA-2620/T002	Intel® Apollolake Atom E3940 CPU	2*LAN, 2*USB3.0, 3*USB2.0, 4*COM, 8-bit DIO, 1*HDMI, 1*DP, Line out, 1*M.2, 1*mSATA, 1*Port, 1*2.5" SATA bay, DC 9~36V
PA-120DC19		AC/DC adaptor, DC 12V/5A 60W

# KMDA-2701

Intel Baytrail-D Celeron J1900 CPU, 4\*LAN, 7\*USB, 6\*COM, Dual display, DC-IN 9~36V, Audio Line out & Mic, 24-bit DIO

## Key Specification

- Aluminum Chassis, fanless heat dissipation design
- Intel Baytrail-D Celeron J1900 2.0-2.42G CPU
- 1\*DDR3L 1333MHz SODIMM RAM, Max. 8GB
- 4\*Intel I211-AT PCIe Gig LAN
- 1\*HDMI & 1\*VGA Dual display, Audio Line out
- 1\*USB3.0, 6\*USB2.0, 6\*COM, 24-bit DIO
- 1\*Mini PCIe(PCIE+USB), 1\*Mini PCIe(SATA+USB)
- 1\*3.5" SATA2 bay, 1\*mSATA
- DC 9~36V wide voltage power supply



## Product Overview

KMDA-2701 is a general-purpose box PC, equipped with Intel Baytrail-D Celeron J1900 2.0-2.42GHz quad-core processor, HDMI and VGA dual display, 24-bit DIO, DC9-36V wide-voltage power supply, real-time operating temperature LED simulation Display, economical and high reliability, suitable for intelligent security and equipment automation.

## Product Parameters

### Processor

CPU Intel Baytrail-D Celeron J1900, frequency 2.0~2.42GHz, 4C4T, 2M cache, 22nm, TDP 10W

RAM 1\*DDR3L, 1333MHz, SODIMM, Max. 8GB

Graphics Intel HD Graphics, Support dual independent display  
VGA: 1920\*1200@60Hz,  
HDMI: 1920\*1080@60Hz, support OpenGL 3.2, DirectX 11, OpenCL 1.2, MPGE2/H.264

LAN 4\*Intel I211AT PCIe Gigabit Ethernet, 10/100/1000Mbps

USB 1\* USB3.0, 5\*USB2.0, 1\*USB2.0 (Build-in)

Display 1\*VGA+1\*HDMI

Audio 1\*Line out+1\*Mic, optional audio, build-in 3W Speaker pin

Serial port/ Others 4\*RS232/422/485, 2\*RS232,  
1\*2 pin terminal, Remote switch, USB mouse/keyboard

DIO 16-bit TTL, programmable input & output  
8-bit TTL, programmable input & output

### Storage

Storage 1\*3.5" HDD SATA2 bay, 3.0 Gbps,  
1\*mSATA Full-height card, support AHCI

### Others

Indicator light 1\*power indicator, 1\*hard disk indicator, 3\*CPU temperature indicator (Red is high temperature, Yellow is normal temperature, Green is low temperature)

Control switch 1\*power switch (front panel), 1\*2pin terminal switch signal (rear panel), 1\*AT/ATX selector switch (front panel)

Watchdog timer Programmable timeout interrupt or system reset, 1 to 255 seconds

### Expansion

Expansion Port 1\*Mini PCIe, with SIM slot, support 4G LTE, Wifi/BT,  
I-Port 1\*USB2.0 or other Mini PCIe interface(i.e. CAN Bus & Gig. LAN)

### Power Supply

Input voltage DC IN 9~36V, D-Jack with M8 interface, short circuit protection,  
over voltage & over current protection

Power consumption 19.2W(3.5" HDD)

### Mechanical

Structure U-shaped Aluminum Chassis, SGCC frame

Color Silver gray

Installation desktop mousing

Dimension(W\*H\*D) 210\*144\*82.7mm

Net Weight 2.60KG

### Environmental

Operating Temp -20°C~70°C – fanless design, wide-temperature SSD  
-10°C~55°C – fanless design, normal temperature HDD

Storage Temp -40°C~85°C

Storage Humidity 10~90%@40°C, No- condensation

Vibration 5 grms/5~500Hz/random/during operation (SSD)  
1 grms/5~500Hz/random/during operation (HDD)

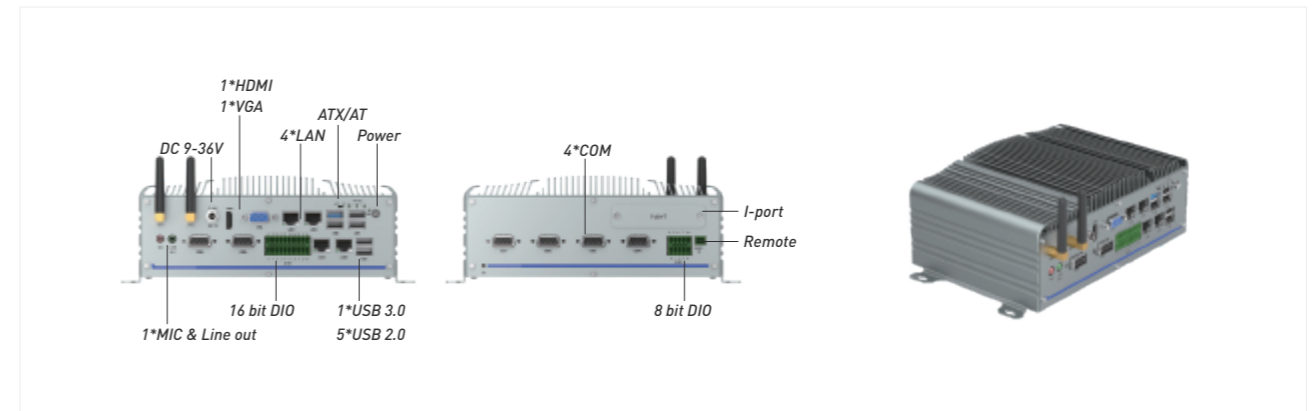
Shock 50g peak acceleration(duration 11ms) with SSD,  
20g peak acceleration(duration 11ms) with HDD

Certificate/EMC CE/FCC Class A

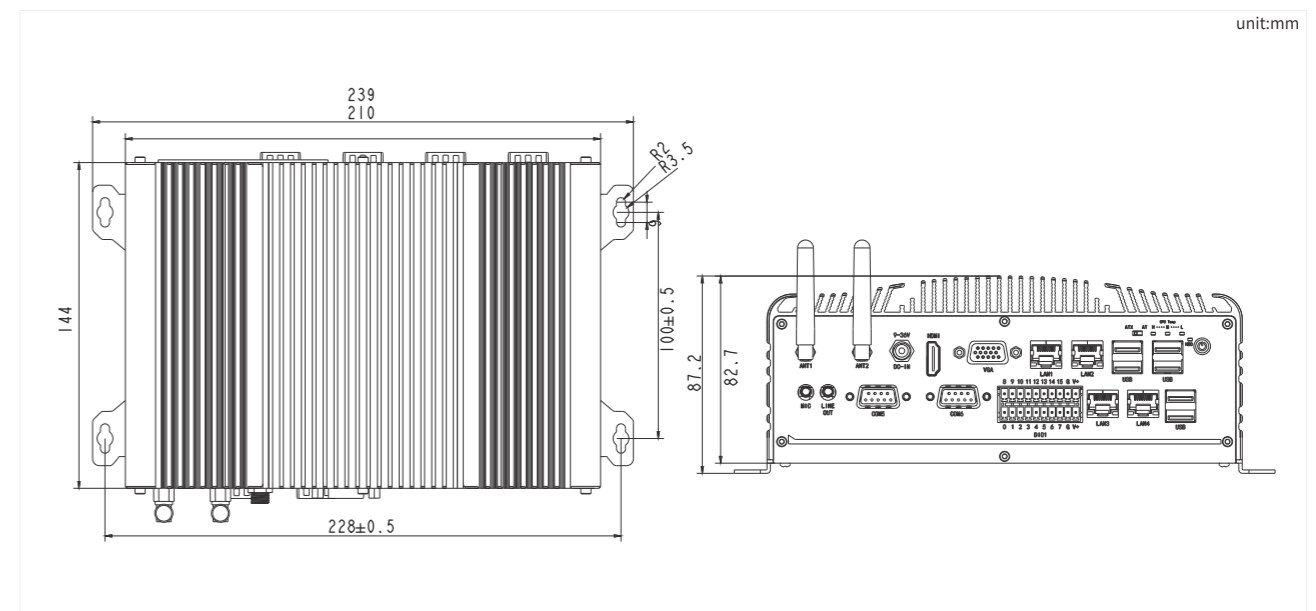
### OS

Operating system Windows 7, Windows 8.1, Windows 10,  
Linux Fedora, Ubuntu

## I/O View



## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-2701/S002	Intel® J1900 CPU	4*LAN, 1*USB3.0, 6*USB2.0, 6*COM, 24-bit DIO, 1*HDMI, 1*VGA, 1*Line out, 1*Mic, 1*Mini PCIe(share slots with mSATA), 1*mSATA, 1*I-port, 1*3.5" SATA bay, DC 9~36V
KMDA-2701/T001	Intel® J1900 CPU	2*LAN, 1*USB3.0, 4*USB2.0, 4*COM, 8-bit DIO, 1*HDMI, 1*VGA, Line out 2*Mini PCIe(share slots with mSATA), 1*mSATA, 1*I-port, 1*3.5" SATA bay, DC 9~36V
PA-60DC12		AC/DC adaptor, DC 12V/5A 60W

# KMDA-2702

Intel Baytrail-D Celeron J1900 CPU, 3\*LAN, 7\*USB, 10\*COM, Dual display, DC-IN 9~36V, Audio Line out & Mic, 16-bit DIO

## Key Specification

- Aluminum Chassis, fanless heat dissipation design
- Intel Baytrail-D Celeron J1900 2.0-2.42G CPU
- 1\*DDR3L 1333MHz SODIMM RAM, Max. 8GB
- 3\*Intel I211-AT PCIe Gig LAN
- 1\*HDMI & 1\*VGA Dual display, Audio Line out
- 1\*USB3.0, 6\*USB2.0, 10\*COM, 1\*PS2, 16-bit DIO
- 1\*Mini PCIe(PCIE+USB), 1\*Mini PCIe(SATA+USB)
- 1\*2.5" SATA2 bay, 1\*mSATA
- DC 9~36V wide voltage power supply



## Product Overview

KMDA-2702 is a general-purpose box PC, equipped with Intel Baytrail-D Celeron J1900 2.0-2.42GHz quad-core processor, DC9-36V wide voltage power supply, real-time working temperature LED simulation display, economical, high reliability, suitable for environment Monitoring and new energy industry, etc.

## Product Parameters

### Processor

CPU Intel Baytrail-D Celeron J1900 , frequency 2.0~2.42GHz, 4C4T, 2M cache, 22nm, TDP 10W

RAM 1\*DDR3L, 1333MHz, SODIMM, Max. 8GB

Graphics Intel HD Graphics, Support dual independent display  
VGA: 1920\*1200@60Hz,  
HDMI: 1920\*1080@60Hz, support OpenGL 3.2, DirectX 11, OpenCL 1.2, MPGE2/H.264

LAN 3\*Intel I211AT PCIe Gig. Ethernet, 10/100/1000Mbps

USB 1\* USB3.0, 5\*USB2.0 , 1\*USB2.0 (Build-in)

Display 1\*VGA+1\*HDMI

Audio 1\*Line out+1\*Mic, optional audio, build-in 3W Speaker pin

Serial port/ Others 8\*RS232/422/485, 2\*RS232,  
1\*2 pin terminal, Remote Switch, PS2 mouse/keyboard

DIO 16-bit TTL, programmable input & output  
(2\*5Pin Phoenix terminal\*2)

### Storage

Storage 1\*2.5" HDD SATA2 bay, 3.0 Gbps,  
1\*mSATA Full-height card, support AHCI

### Others

Indicator light 1\*power indicator, 1\*hard disk indicator, 3\*CPU temperature indicator  
(Red is high temperature, Yellow is normal temperature, Green is low temperature)

Control switch 1\*power switch (front panel), 1\*2pin terminal switch signal (rear panel),  
1\*AT/ATX selector switch (front panel)

Watchdog timer Programmable timeout interrupt or system reset, 1 to 255 seconds

### Expansion

Expansion Port 1\*Mini PCIe, with SIM slot support 4G LTE, Wifi/BT

### Power Supply

Input voltage DC IN 9~36V, D-Jack. D-Jack with M8 interface,  
short circuit protection, over voltage & over current protection  
Power consumption 15.6W(2.5" HDD)

### Mechanic

Structure U-shaped Aluminum Chassis, SGCC frame

Color Silver gray

Installation desktop mousing

Dimension(W\*H\*D) 210\*144\*82.7mm

Net Weight 2.60KG

### Environmental

Operating Temp -20°C~70°C – fanless design, wide-temperature SSD  
-10°C~55°C – fanless design, normal temperature HDD

Storage Temp -40°C~85°C

Storage Humidity 10~90%@40°C, No- condensation

Vibration 5 grms/5~500Hz/random/during operation (SSD)  
1 grms/5~500Hz/random/during operation (HDD)

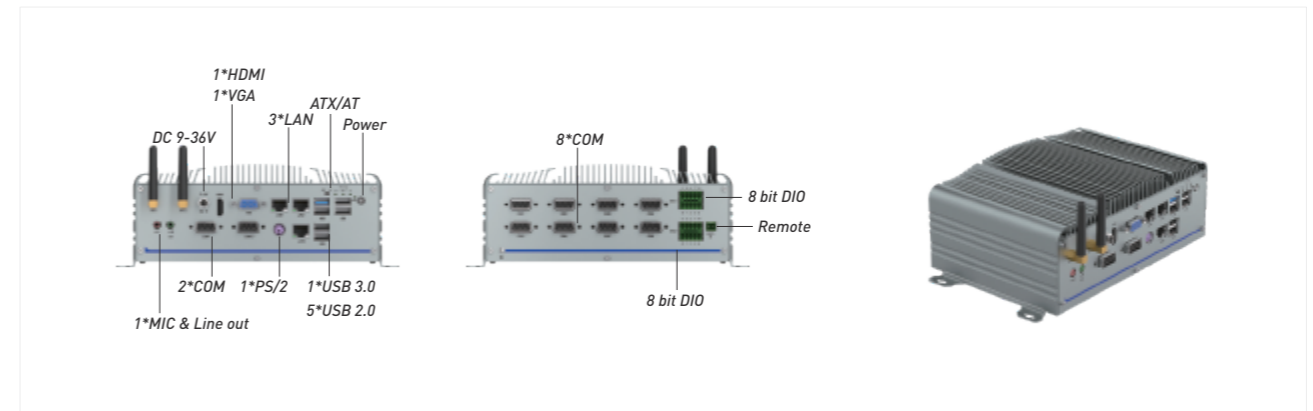
Shock 50g peak acceleration(duration 11ms) with SSD,  
20g peak acceleration(duration 11ms) with HDD

Certificate/EMC CE/FCC Class A

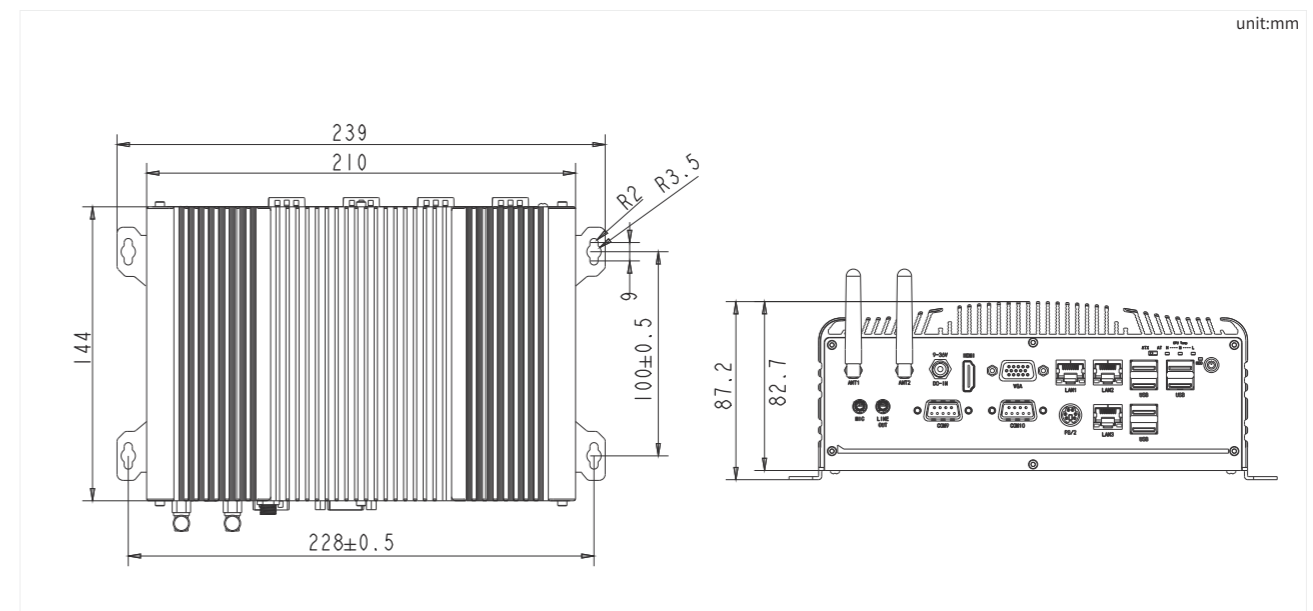
### OS

Operating system Windows 7, Windows 8.1, Windows 10,  
Linux Fedora, Ubuntu

## I/O View



## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-2702/S001	Intel® J1900 CPU	3*LAN, 1*USB3.0, 6*USB2.0, 10*COM, 16-bit DIO, 1*HDMI, 1*VGA, 1*Line out, 1*Mic, 2*Mini PCIe(one of them shares slots with mSATA), 1*2.5" SATA bay, DC 9~36V
PA-60DC12		AC/DC adaptor ,DC12V/5A 60W

# KMDA-3201

Intel Skylake-U/Kabylake-U CPU, 3\*LAN, 7\*USB, 6\*COM, 4K Dual independent display, 8-bit DIO, Intel Vpro, TPM2.0, DC 9~30V

## Key Specification

- Aluminum Chassis, fanless heat dissipation design
- Intel Skylake-U/Kabylake-U CPU
- 2\*DDR4 2133MHz SODIMM RAM, Max. 32GB
- 1\*HDMI & 1\*DP display, support 4K Dual display
- 3\*Gig LAN, 4\*USB3.0, 3\*USB2.0(one build-in)
- 6\*COM, 8-bit DIO, Line out
- 1\*Mini PCIe(PCIE+USB) full-height card, 1\*M.2 2242 B-key
- 1\*mSATA, 1/2\*2.5" SATA bay
- Support Intel vPro technology and optional TPM 2.0 security encryption
- DC 9~36V wide voltage power supply, With reverse polarity protection, short circuit protection, over voltage & over current protection



## Product Overview

KMDA-3201 is a new industrial design Box Computer with aluminum chassis and fanless design. It is equipped with Intel Skylake-U/Kabylake-U processor. It supports Intel vPro technology and optional TPM2.0 hardware encryption technology, high reliability, DC9-30V wide-voltage power supply, widely used in artificial intelligence, machine vision and intelligent transportation industries.

## Product Parameters

### Processor

CPU	Intel Skylake-U/Kabylake-U CPU Celeron/ Core i3/i5/i7 U
RAM	2*260-Pin SODIMM, DDR4, 2133MHz, Max. 32GB
Graphics	Intel Gen. 9th HD Graphics, HEVC/H265 HW HD codec, HDMI: 3840*2160@30Hz, DP: 4096*2304@60Hz
LAN	2*Intel I211AT PCIe Gig. Ethernet, 10/100/1000Mbps, 1*Intel I219 LM support Intel Vpro
USB	4* USB3.0, 2*USB2.0, 1*USB2.0 (Build-in)
Display	1*DP+1*HDMI
Audio	1*Line out, optional audio
Serial port/ Others	2*RS232/422/485, 4*RS232, 1*2 pin terminal, remote switch, USB mouse/keyboard
DIO	8-bit TTL, programmable input & output (2*5Pin Phoenix terminal)

### Storage

Storage	1*2.5" HDD SATA3 bay, 6.0 Gbps, 1*mSATA Full-height card, support AHCI
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### Others

Indicator light	1*power indicator, 1*hard disk indicator, 3*CPU temperature indicator (Red is high temperature, Yellow is normal temperature, Green is low temperature)
Control switch	1*power switch (front panel), 1*2pin terminal switch signal(rear panel), 1*AT/ATX selector switch (front panel)
Watchdog timer	Programmable timeout interrupt or system reset, 1 to 255 seconds

### Expansion

Expansion Port	1*Mini PCIe with SIM slot, 1*M.2 B-key with PCIe+USB signal & SIM slot, support dual 4G/Wifi/BT, I-port: optional 2*USB2.0, LVDS or Mini PCIe interface
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### Power Supply

Input voltage	DC IN 9~30V, 3pin terminal, With reverse polarity protection, short circuit protection, over voltage & over current protection
Power consumption	27.72W (I5-7200U 8GB)

### Mechanical

Structure	Aluminum Chassis, SGCC frame
Color	Silver gray
Installation	desktop mousing
Dimension(W*H*D)	210*144.3*75.5mm
Net Weight	2.20KG

### Environmental

Operating Temp	-20°C~70°C – fanless design, wide-temperature SSD -10°C~50°C – fanless design, normal temperature HDD
Storage Temp	-40°C~85°C
Storage Humidity	10~90%@40°C, No- condensation
Vibration	5 grms/5~500Hz/random/during operation (SSD) 1 grms/5~500Hz/random/during operation (HDD)

### Shock

Shock	50g peak acceleration(duration 11ms) with SSD, 20g peak acceleration(duration 11ms) with HDD
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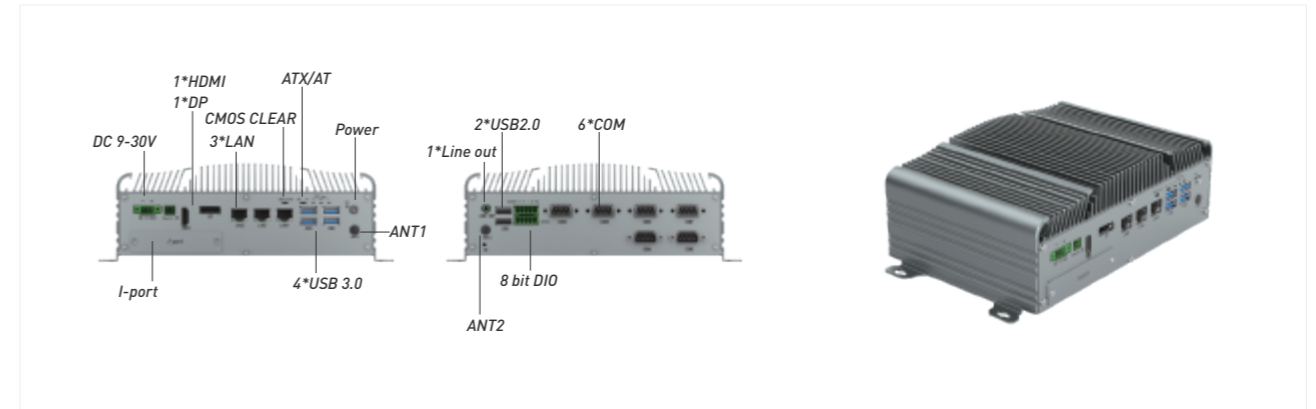
### Certificate/EMC

Certificate/EMC	CE/FCC Class A
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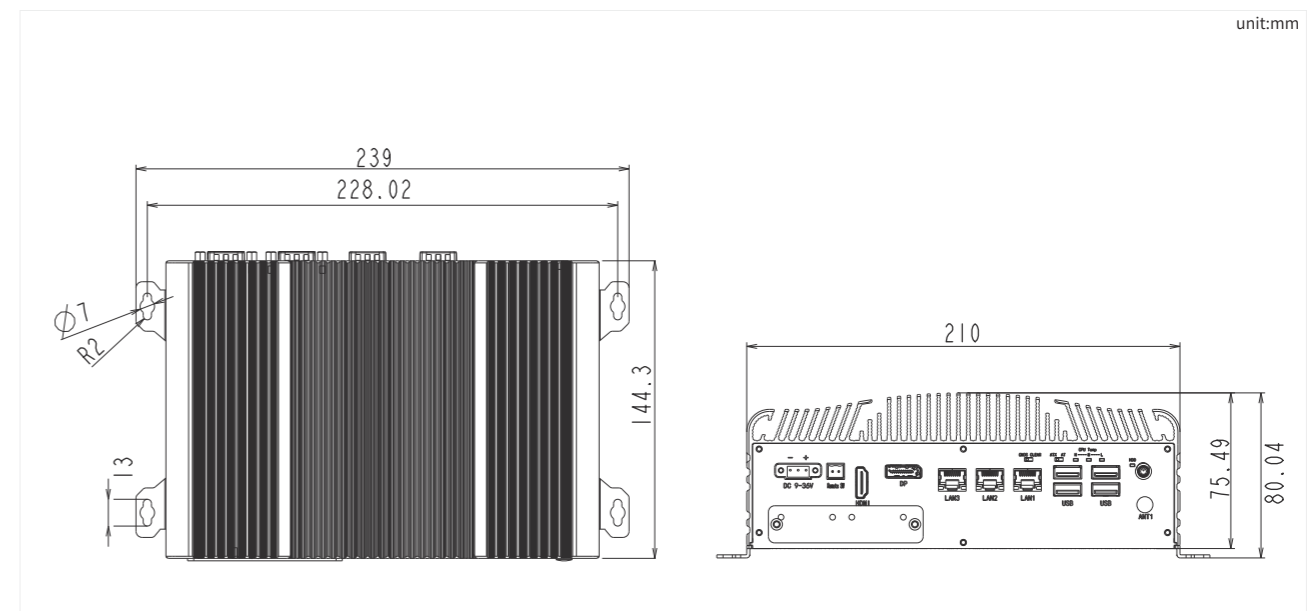
### OS

Operating system	Windows 7, Windows 10, Linux Fedora, Ubuntu
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## I/O View



## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-3201/S001	Intel Core I3-6100U/I3-7100U	3*LAN, 4*USB3.0, 3*USB2.0, 6*COM, 8-bit DIO, 1 *Mini PCIe, 1*M.2, 1*HDMI, 1*DP, 1*Line out, 1*I-port, 1*2.5" SATA bay, 1*mSATA, DC 9~30V
KMDA-3201/S002	Intel Core I5-6200U/I5-7200U	
KMDA-3201/S003	Intel Core I7-6500U/I7-7500U	
KMDA-3201/S004	Intel Celeron 3855U/3865U CPU	
PA-60DC12		AC/DC adaptor, DC12V@5A 60W
PA-120DC19		AC/DC adaptor, DC19V/6.32A, 120W

# KMDA-3202

Intel Skylake-U/Kabylake-U CPU, 3\*LAN, 4\*POE, 9\*USB, 6\*COM, Dual 4K display, 8-bit DIO+16-bit iso DIO, Intel Vpro, TPM2.0, DC 9~30V

## Key Specification

- Aluminum Chassis, fanless heat dissipation design
- Intel Skylake-U/Kabylake-U CPU
- 2\*DDR4 2133MHz SODIMM RAM, Max. 32GB
- 1\*HDMI & 1\*DP display, support 4K Dual display
- 3\*Gig LAN, 4\*POE, 4\*USB3.0, 5\*USB2.0 (one build-in)
- 6\*COM, 1\*PS2, 16bit iso DIO, 8-bit DIO, Line out & Mic
- 1\*Mini PCIe(PCle+USB) full-height card, 1\*M.2 2242 B-key
- 1\*mSATA, 1/2\*2.5" SATA bay
- Support Intel vPro technology and optional TPM 2.0 security encryption
- DC 9~36V wide voltage power supply, With reverse polarity protection, short circuit protection, over voltage & over current protection



## Product Overview

KMDA-3202 is a new industrial design Box Computer with aluminum chassis and fanless design. Using Intel Skylake-U/Kabylake-U processors, dual-channel DDR4 2133MHz SODIMM, up to 32GB, it is widely used in industries such as artificial intelligence, machine vision and robotics.

## Product Parameters

### Processor

CPU Intel Skylake-U/Kabylake-U CPU Celeron/ Core i3/i5/i7 U

RAM 2\*260-Pin SODIMM, DDR4,2133MHz, Max. 32GB

Graphics Intel Gen. 9th HD Graphics, HEVC/H265 HW HD codec, HDMI: 3940\*2160@30Hz, DP: 4096\*2160@60Hz

LAN 2\*Intel I211AT PCIe Gig. Ethernet,10/100/1000Mbps,

1\*Intel I219 LM support Intel Vpro,

4\*Intel I211AT PCIe Full bandwidth POE

USB 4\* USB3.0, 4\*USB2.0, 1\*USB2.0 (Build-in)

Display 1\*DP+1\*HDMI

Audio 1\*Line out+1\*Mic, optional audio

Serial port/ Others 2\*RS232/422/485, 4\*RS232,

1\*2pin terminal, Remote switch interface,1\*PS/2(mouse/keyboard)

8-bit TTL, programmable input & output(2\*5Pin Phoenix terminal)

DIO 8-bit Iso. DI(1\*10Pin Phoenix terminal),

8-bit Iso. DO (100mA) (1\*10Pin Phoenix terminal)

### Storage

Storage 1\*2.5" SATA3 bay, 6.0 Gbps HDD/SSD,

1\*mSATA Full-height card, support AHCI

### Others

Indicator light 1\*power indicator, 1\*hard disk indicator, 3\*CPU temperature indicator (Red is high temperature, Yellow is normal temperature, Green is low temperature)

Control switch 1\*power switch (front panel), 1\*2pin terminal switch signal(rear panel), 1\*AT/ATX selector switch (front panel)

Watchdog timer Programmable timeout interrupt or system reset, 1 to 255 seconds

### Expansion

Expansion Port 1\*Mini PCIe with SIM slot, 1\*M.2 B-key with PCIe+USB signal and SIM slot, support dual 4G/Wifi/BT

### Power Supply

Input voltage DC IN 9~30V, 3pin terminal, With reverse polarity protection, short circuit protection, over voltage & over current protection

Power consumption 27.72W(I5-7200U 8GB)

### Mechanical

Structure Aluminum Chassis, SGCC frame

Color Silver gray

Installation desktop mousing

Dimension(W\*H\*D) 210\*144.3\*75.5mm

Net Weight 2.20KG

### Environmental

Operating Temp -20°C~70°C – fanless design, wide-temperature SSD

-10°C~50°C – fanless design, normal temperature HDD

Storage Temp -40°C~85°C

Storage Humidity 10~90%@40°C, No- condensation

Vibration 5 grms/5~500Hz/random/during operation (SSD)

1 grms/5~500Hz/random/during operation (HDD)

Shock 50g peak acceleration(duration 11ms) with SSD,

20g peak acceleration(duration 11ms) with HDD

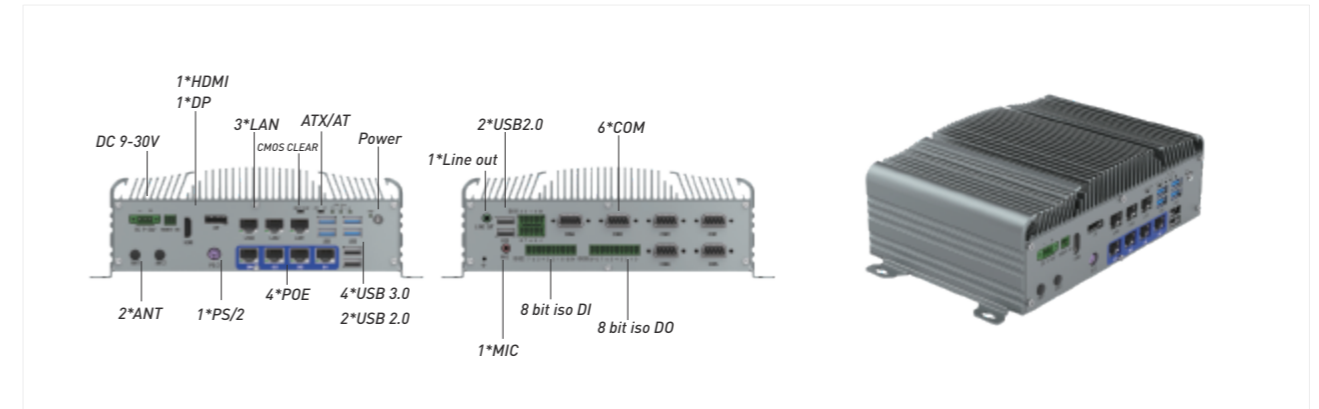
Certificate/EMC CE/FCC Class A

### OS

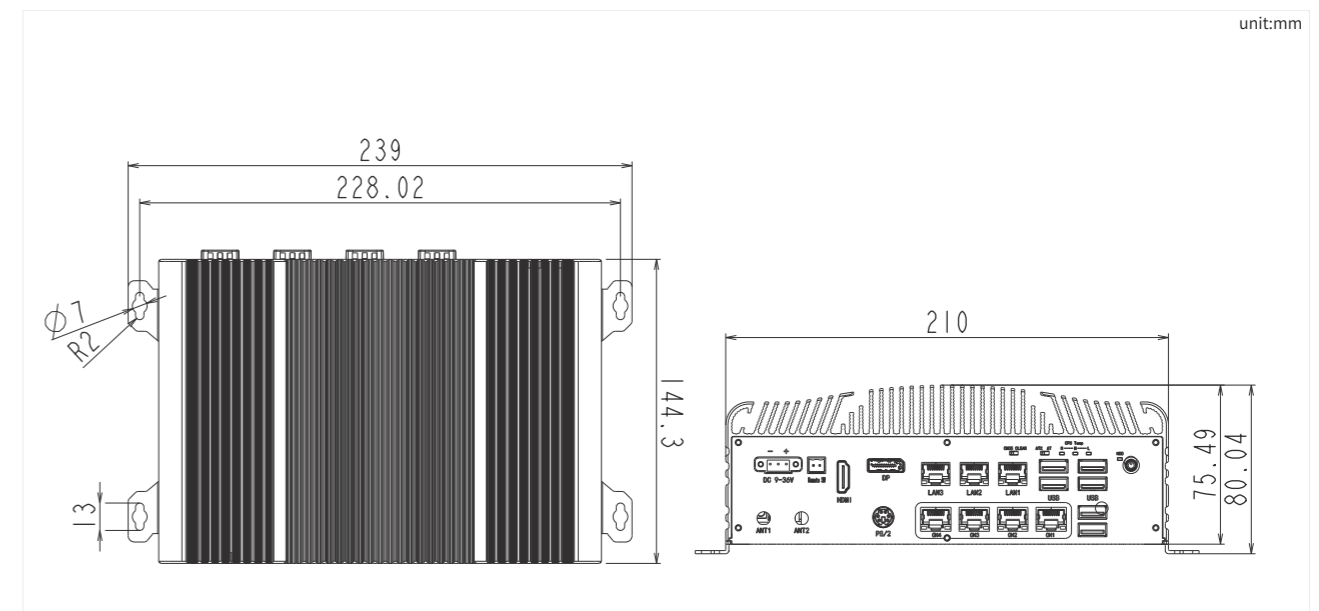
Operating system Windows 7, Windows 10,

Linux Fedora,Ubuntu

## I/O View



## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-3202/S001	Intel I3-6100U/I3-7100U	3*LAN, 4*POE, 4*USB3.0, 5*USB2.0, 6*COM, 16-bit iso. DIO, 8-bit DIO, 1 *Mini PCIe, 1*M.2, 1*PS/2, 1*HDMI, 1*DP, 1*Line out,1*Mic, 1*2.5" SATA bay, 1*mSATA, DC 9~30V
KMDA-3202/S002	Intel I5-6200U/I5-7200U	
KMDA-3202/S003	Intel I7-6500U/I7-7500U	
KMDA-3202/S004	Intel Celeron 3855U/3865U	
PA-60DC12		AC/DC adaptor, DC12V/5A 60W--for KMDA-3202-T00X
PA-120DC19		AC/DC adaptor,DC19V/6.32A 120W--forKMDA-3202-S00X

# KMDA-3212

Intel® Skylake-U/Kabylake-U CPU, 2/3\*LAN, 7\*USB, 4\*COM, Dual 4K display, 8-bit DIO, Intel Vpro, TPM2.0, DC IN 12~24V

## Key Specification

- Aluminum Chassis, fanless heat dissipation design
- Intel Skylake-U/Kabylake-U CPU
- 1\*DDR4 2133MHz SODIMM RAM, Max. 16GB
- 1\*HDMI & 1\*DP display, support 4K Dual display, 1\*VGA
- 2/3\*Gig LAN, 4\*USB3.0, 3\*USB2.0 (one build-in)
- 4\*COM, 8-bit DIO, 1\*Line out, 1\*Mic
- 1\*MiniPCIe(PCIe+USB)
- 1\*mSATA, 1\*2.5" SATA bay
- Support Intel vPro technology and optional TPM 2.0 security encryption
- DC 12~24V wide voltage power supply



## Product Overview

KMDA-3212 is a new industrial design Box Computer of JHCTECH with aluminum chassis and fanless design. Equipped with Intel® Skylake-U/Kabylake-U CPU, 1\*mSATA, dual storage, optional support for TPM2.0 and support for iVpro technology. DC12~24V, It is suitable for ITS, medical imaging, intelligent transportation fields.

## Product Parameters

### Processor

CPU	Intel Skylake-U/Kabylake-U CPU Celeron/ Core i3/i5/i7 U
RAM	1*260-Pin SODIMM, DDR4,2133MHz, Max. 16GB
Graphics	Intel Gen. 9th HDGraphics, HEVC/H265 HW HD codec, HDMI: 4096*2304@24Hz, DP: 4096*2304@60Hz,VGA: 1920*1200@60Hz
LAN	2*Intel I211AT PCIe Gig. Ethernet,10/100/1000Mbps; 1*Intel I219 LM support Intel Vpro,
USB	4* USB3.0, 2*USB2.0 , 1*USB2.0 (Build-in)
Display	1*DP+1*HDMI+1*VGA
Audio	1*Line out+1*Mic, optional audio
Serial port/ Others	2*RS232/422/485, 2*RS232, 1*PS/2(mouse/keyboard)
DIO	8-bit TTL, programmable input & output(2*5Pin Phoenix terminal)

### Storage

Storage	1*2.5" SATA3 bay, 6.0 Gbps HDD/SSD, 1*mSATA , support AHCI
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### Others

Indicator light	1*power indicator, 1*hard disk indicator, 3*CPU temperature indicator (Red is high temperature, Yellow is normal temperature, Green is low temperature)
Control switch	1*power switch (front panel), 1*2pin terminal switch signal(rear panel), 1*AT/ATX selector switch (front panel)
Watchdog timer	Programmable timeout interrupt or system reset, 1 to 255 seconds

### Expansion

Expansion Port	1*Mini PCIe, with SIM slot, support 4G LTE、Wifi/BT
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### Power Supply

Input voltage	DC IN 12~24V, 3pin terminal(front panel),
Power consumption	58.56W(I5-7200U 16GB DDR4)

### Mechanical

Sturcture	Aluminum Chassis, SGCC frame
Color	Silver gray
Installation	desktop mousing
Dimension(W*H*D)	200*200*85.3mm
Net Weight	3.3KG

### Environmental

Operating Temp	-20°C~70°C – fanless design, wide-temperature SSD -10°C~50°C – fanless design, normal temperature HDD
Storage Temp	-40°C~85°C
Storage Humidity	10~90%@40°C, No- condensation

Vibration	5 grms/5~500Hz/random/during operation (SSD) 1 grms/5~500Hz/random/during operation (HDD)
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Shock	50g peak acceleration(duration 11ms) with SSD, 20g peak acceleration(duration 11ms) with HDD
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Certificate/EMC	CE/FCC Class A
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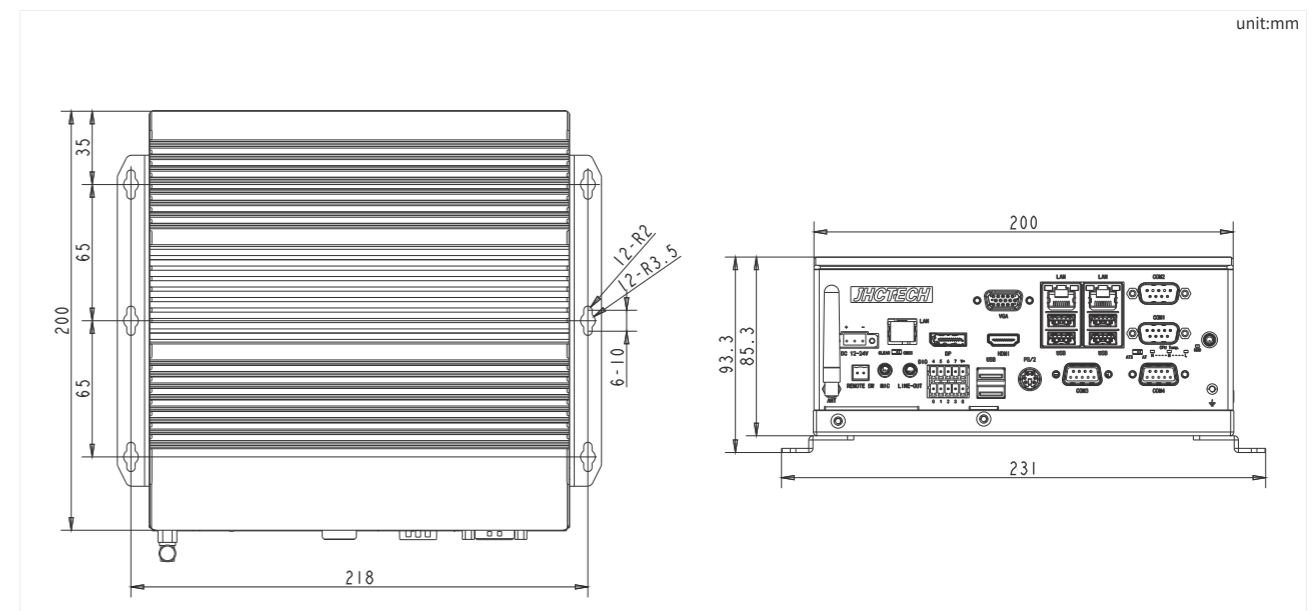
### OS

Operating system	Windows 7, Windows 10, Linux Fedora,Ubuntu
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## I/O View



## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-3212/S001	Intel I3-6100U/I3-7100U	3*LAN, 4*USB3.0, 3*USB2.0, 4*COM, 8-bit DIO, 1*Mini PCIe,1*HDMI, 1*DP, 1*VGA, 1*PS/2, 1*Line out, 1*Mic, 1*2.5" SATA bay, 1*mSATA, DC 12~24V
KMDA-3212/S002	Intel I5-6200U/I5-7200U	
KMDA-3212/S003	Intel I7-6500U/I7-7500U	
KMDA-3212/S004	Intel Celeron 3855U/3865U	
PA-60DC12		AC/DC adaptor,DC12V/5A 60W
PA-120DC19		AC/DC adaptor,DC19V/6.32A 120W

# KMDA-3230

Intel® Whiskey lake U CPU, 2-CH DDR4, 1\*HDMI, 1\*DP, 5\*G-LAN, 5\*COM, 4\*USB3.1, 2\*USB2.0, DC 9~36V

## Key Specification

- Aluminum Chassis, fanless heat dissipation design
- 8th-Gen Intel® Whiskey lake U series CPU
- 2-Ch DDR4 2400MHz SODIMM, Max. 32GB
- 1\*HDMI & 1\*DP display, support 4K Dual display
- 1\*Line out&Mic,4\*USB3.1,2\*USB2.0
- 5\* GbE LAN,5\*COM ,8-bit iso DIO
- 1\*mSATA,1\*2.5" SATA bay
- 1\*M.2,2230 E-Key, 1\*Mini-PCIe,1\*SIM slot
- DC 9~36V wide voltage power supply



## Product Overview

KMDA-3230 is a fanless embedded box PC, equipped with the 8th generation Intel® Whiskey lake U series processor. DC9~36V wide voltage power supply, Aluminum chassis for hard disk heat dissipation. It is small, powerful and exquisite, suitable for applications such as industrial IoT and machine vision.

## Product Parameters

### Processor

CPU	Intel® Whiskey lake U Celeron/Core i3/i5/i7
RAM	2*DDR4 SODIMM,2400MHz, Max. 32GB
Graphics	Intel® Gen. 9 UHD Graphics,Support dual independent display HDMI:4096*2304@24Hz DP:4096*2304@60Hz
LAN	4*Intel® I210AT PCIe, Gig. Ethernet, 10/100/1000Mbps; 1*Intel®I219LM
USB	4* USB3.1, 2*USB2.0
Display	1*DP+1*HDMI
Audio	1*Line out+1*Mic, optional audio
Serial port/ Others	2*RS485, 3*RS232,
DIO	8-bit Iso. DIO(4-bit 2.5KV optical Iso. DO,4-bit 2.5KV optical Iso. DI)

### Storage

Storage	1*2.5" SATA port, 1*mSATA Full-height card, support AHCI
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### Others

Indicator light	1*power indicator, 1*hard disk indicator, 3*CPU temperature indicator (Red is high temperature, Yellow is normal temperature, Green is low temperature)
Control switch	1*Power switch, 1*AT/ATX mode selection switch, 1*Clear CMOS data switch
Watchdog timer	Programmable timeout interrupt or system reset, 1 to 255 seconds

### Expansion

Expansion Port	1*Mini PCIe, with SIM slot, support 3G/4G/Wifi/ BT/ GPRS, 1*M.2 E-key 2230 Wifi/BT module expansion, 1*I-port(LPT/USB2.0/16-bit DIO/Mini PCIe,etc)
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### Power Supply

Input voltage	DC IN 9~36V, 3pin terminal,
Power consumption	30W (I5-8265U , 8GB DDR4, 128GB SSD)

### Mechanical

Sturcture	Aluminum Chassis, SGCC frame
Color	Silver gray
Installation	desktop mousing
Dimension(W*H*D)	210*147*78mm
Net Weight	2.29KG

### Environmental

Operating Temp	-20°C~70°C – fanless design, wide-temperature SSD -10°C~50°C – fanless design, normal temperature HDD
Storage Temp	-40°C~85°C
Storage Humidity	10~90%@40°C, No- condensation
Vibration	5 grms/5~500Hz/random/during operation (SSD) 1 grms/5~500Hz/random/during operation (HDD)

### Shock

Shock	50g peak acceleration(duration 11ms) with SSD, 20g peak acceleration(duration 11ms) with HDD
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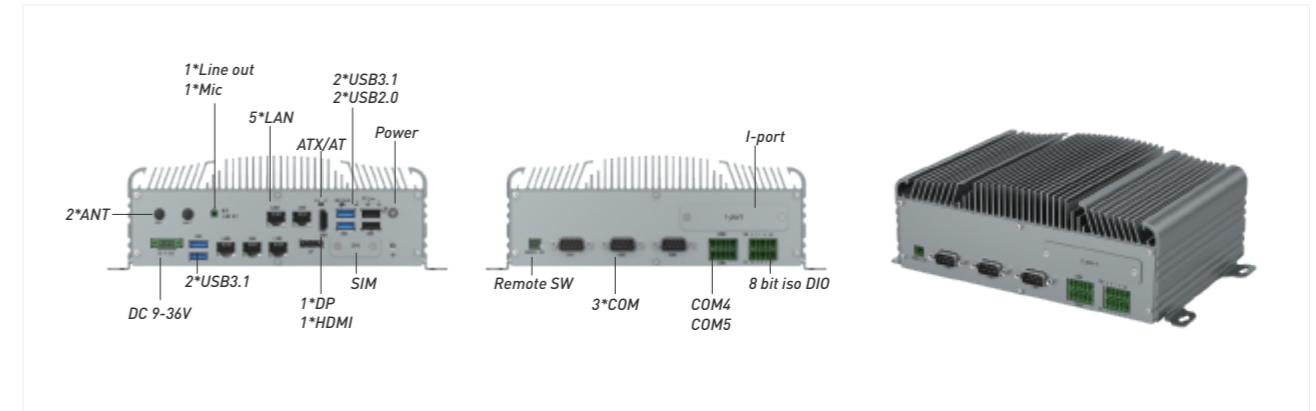
### Certificate/EMC

Certificate/EMC	CE/FCC Class B
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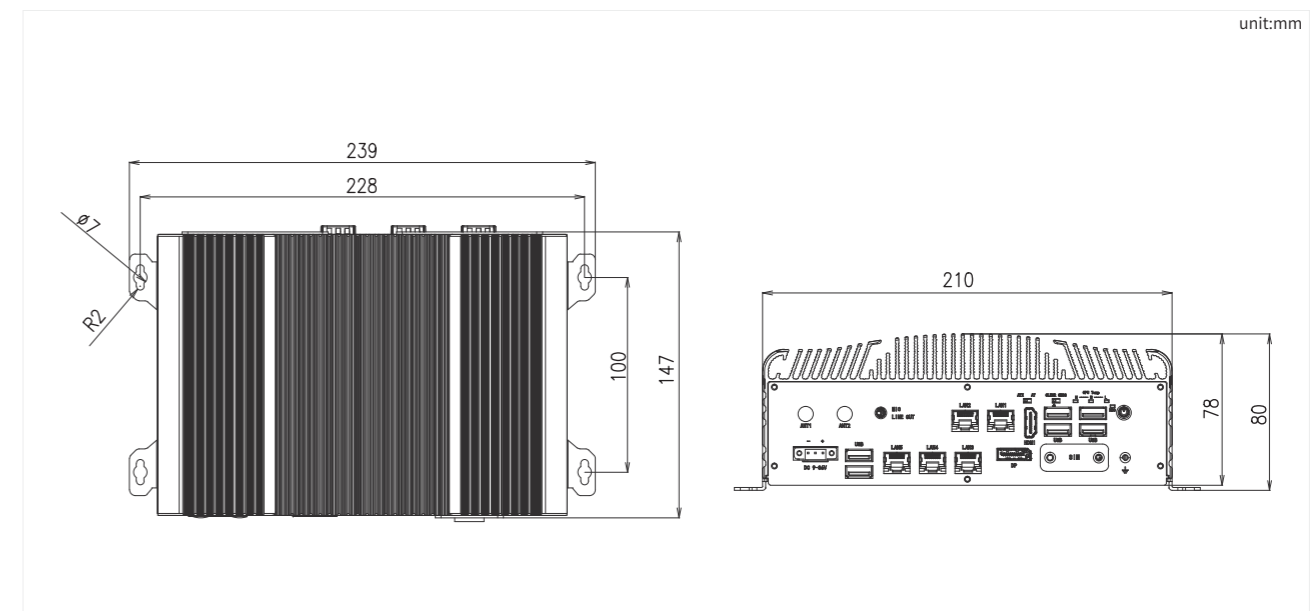
### OS

Operating system	Windows 10, SUSE, Ubuntu, Wind River, Red Hat Enterprise
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## I/O View



## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-3230/S001	Intel I3-8145U	2*DDR4 SO-DIMM,1*HDMI,1*DP,1*Line out,1*Mic, 5*LAN,4*USB3.1,2*USB2.0,5*COM,8-bit DIO,1*M.2,1*Mini PCIe,1*SIM slot, 1*mSATA,1*2.5" SATA,DC9~36V
KMDA-3230/S002	Intel I5-8265U	
KMDA-3230/S003	Intel I7-8565U	
KMDA-3230/S004	Intel Celeron 4305U	
PA-60DC12		AC/DC adaptor, DC 12V/5A 60W



# KMDA-3601

Intel Skylake-S/Kabylake-S CPU, 3\*LAN, 4\*POE, 6\*USB3.0, Dual 4K display,16-bit iso DIO, iVpro, Wide voltage DC 6~48V

## Key Specification

- Aluminum Chassis, fanless heat dissipation design
- Intel Skylake-S/Kabylake-S CPU
- 2\*DDR4 2133/2400MHz SODIMM RAM, Max. 32GB
- 1\*DP, 1\*HDMI & 1\*VGA three display, DP and HDMI 4K support
- 3\*GbE LAN, 4\*POE/8/11\*LAN, 6\*USB3.0, 3\*USB2.0
- 4\*COM, 16 or 24-bit iso DIO, 1\*Line out,1\*Mic
- 2\*Mini PCIe(PCIE+USB),1\*M.2 2242 B-Key
- 1\*mSATA, 2\*2.5" SATA3 bay, support RAID 0,1 support Intel vPro & optional support TPM2.0 security encryption
- DC 6~48V Wide-voltage power supply, short-circuit, over-voltage, over-current and under-voltage protection



## Product Overview

KMDA-3601 is a high-performance box PC with aluminum chassis and fanless design. Equipped with the latest Intel® Skylake-S/Kabylake-S processor, supporting 4G and Wifi/BT wireless communication, DC 6-48V wide-voltage power supply, suitable for applications such as intelligent transportation, video security and machine vision,etc.

## Product Parameters

### Processor

CPU Intel Skylake-S/Kabylake-S Celeron/Pentium/Core i3/i5/i7, Q170 chipset

RAM 2\*260-Pin SODIMM, DDR4,2133MHz, Max. 32GB

Graphics Intel Gen. 9 HD Graphics, HEVC/H265 HW HD codec, support 3 independent displays  
DP: 4096\*2304@60Hz,VGA: 2650\*1600@60Hz, HDMI: 3840\*2160@30Hz,

LAN 2\*Intel I210AT PCIe ,10/100/1000Mbps ;  
1\*Intel I219 LM, support iVpro,  
4\*Intel I210AT PCIe, Full bandwidth POE,optional 8/11\*LAN

USB 6\* USB3.0, 2\*USB2.0 , 1\*USB2.0 (build-in)

Display 1\*DP+1\*HDMI+1\*VGA

Audio 1\*Line out+1\*Mic, optional audio

Serial port /Others 2\*RS232/422/485, 2\*RS232,  
8/12-bit 2.5KV Iso. DI(1\*10Pin Phoenix terminal),  
8/12-bit 2.5KV Iso. DO (1\*10Pin Phoenix terminal)

DIO Optional 16-bit TTL programming input and output/ 24-bit iso DIO

### Storage

Storage 2\*2.5" SATA,HDD/SSD,1\*mSATA full-height card,1\*M.2 2242 B-key

### Others

Indicator light 1\*power indicator, 1\*hard disk indicator, 3\*CPU temperature indicator (Red is alarm, Yellow is high temperature, Green is normal temperature)

Control switch 1\*Power switch, 1\*Reset switch; 1\*2pin terminal switch signal, 1\*AT/ATX selector switch, 1\*CMOS/Clear selector switch

Watchdog timer Watchdog timeout programmable via software 1 to 255 second

### Expansion

Expansion Port 1\*Mini PCIe, with SIM slot, 1\*half-length Mini PCIe, 1\*M.2 B-key, with SIM slot,support dual 4G LTE/Wifi/BT  
1\*I-Port: optional 1\*LPT, 1\*USB2.0, 16-bit DIO, or Mini PCIe/M.2 Function card interface, i.e. serial port

### Power Supply

Input voltage DC 6~48V input,  
Power consumption 38W(i5-7500T , 4GB RAM, 128G SSD)

### Mechanical

Structure Aluminum Chassis, SGCC frame  
Color Silver gray  
Installation Desktop mounting  
Dimension(W\*H\*D) 284\*222\*84.7mm

Net Weight 4.65KG

### Environment

Operating Temp -20°C~65°C – Fanless design, wide-temperature SSD,  
-10°C~55°C – Fanless design, normal temperature HDD

Storage Temp -40°C~85°C

Storage Humidity 10~90%@40°C, No condensation

Vibration 5 grms/5~500Hz/random/during operation (SSD)  
1 grms/5~500Hz/random/during operation (HDD)

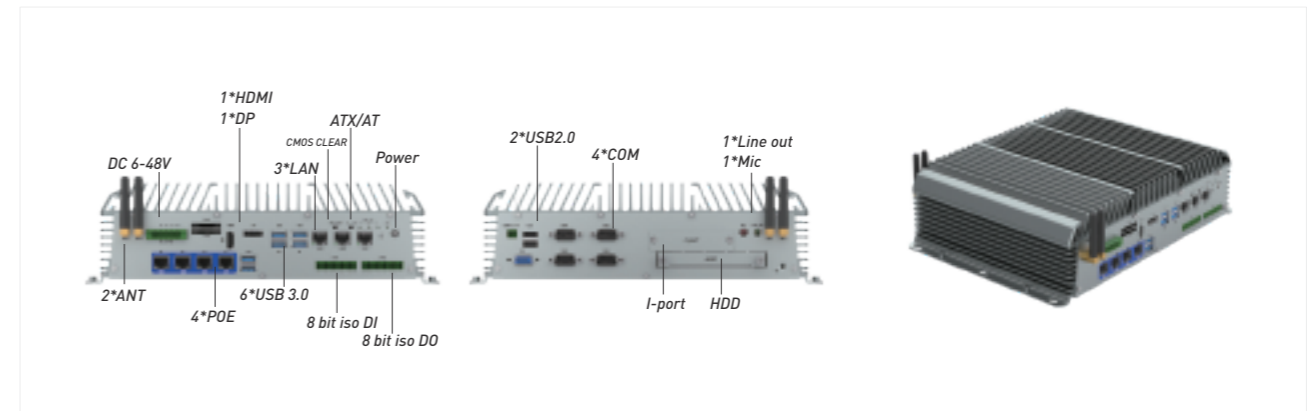
Shock 50g peak acceleration(duration 11ms) with SSD,  
20g peak acceleration(duration 11ms) with HDD

Certificate/EMC CE/FCC Class B

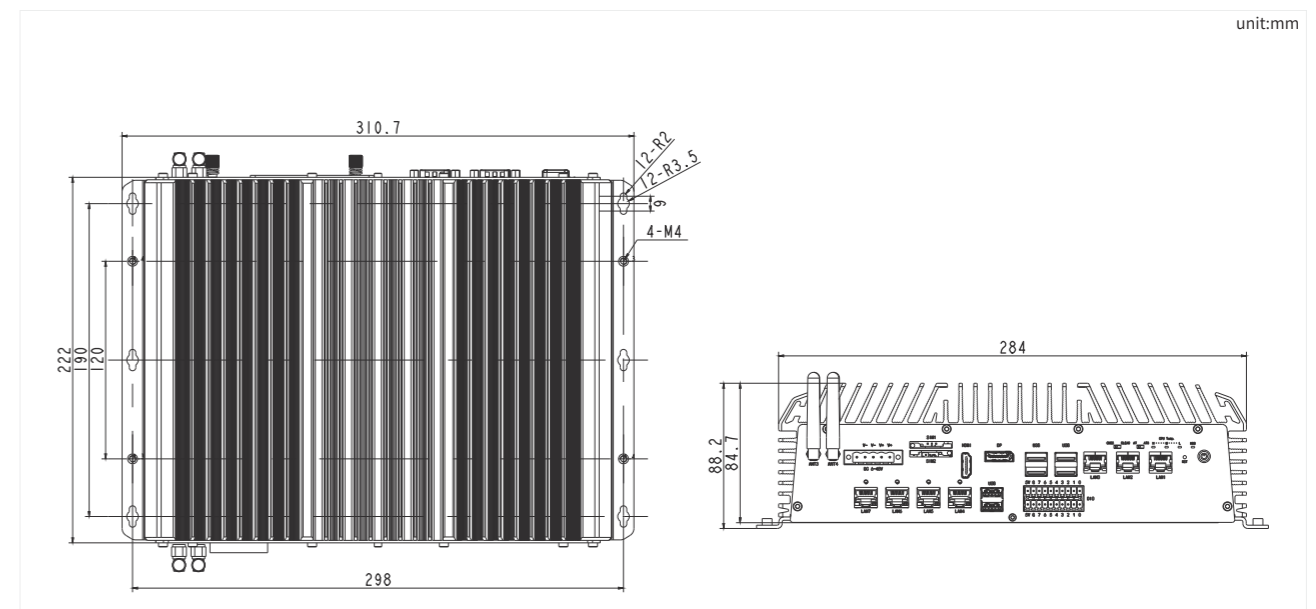
### OS

OS Windows 7, Windows 10,  
Linux Fedora,Ubuntu

## I/O View



## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-3601/S001	Intel® Q170 chip+ SKL/KAL-S LGA1151 CPU	3*LAN, 4*POE, 6*USB3.0, 3*USB2.0, 4*COM,16-bit Iso.DIO, 1*M.2, 2*Mini PCIe, 1*HDMI, 1*DP, 1*VGA, 1*Line out, 1*Mic, 1*I-port, 2*2.5" SATA bay 1*mSATA, DC 6~48V
KMDA-3601/S002	Intel® Q170 chip+ SKL/KAL-S LGA1151 CPU	7*LAN, 6*USB3.0, 3*USB2.0, 4*COM, 16-bit DIO,1*M.2, 2*Mini PCIe, 1*HDMI, 1*DP, 1*VGA, 1*Line out, 1*Mic, 1*I-port, 2*2.5" SATA bay, 1*mSATA, DC 6~48V
KMDA-3601/S003	Intel® Q170 chip+ SKL/KAL-S LGA1151 CPU	11*LAN, 4*USB3.0, 3*USB2.0, 4*COM, 24-bit Iso. DIO,1*M.2, 2*Mini PCIe, 1*HDMI, 1*DP, 1*VGA, 1*Line out, 1*Mic, 1*I-port, 2*2.5" SATA bay, 1*mSATA, DC 6~48V
PA-120DC19		AC/DC power adapter,DC19V/6.32A,120W
PA-220DC24		AC/DC Power Adapter,DC24V@9.17A ,220W

# KMDA-3602

Intel Skylake-S/Kabylake-S CPU,3\*LAN,4\*POE,6\*USB3.0,MXM3.1GPU,6\*4K display, 16-bit iso DIO,ITPS vehicle power

## Key Specification

- \* Aluminum Chassis, CPU with fanless heat dissipation design
- \* Intel Skylake-S/Kabylake-S CPU
- \* 2\*DDR4 2133/2400MHz SODIMM RAM, Max. 32GB
- \* MXM3.1 NVIDIA/AMDGPU module
- \* Integrated 1\*DP+1\*HDMI+1\*VGA, Independent Graphics 3\*DP+1\*HDMI
- \* 3\*Gig LAN, 4\*POE, 6\*USB3.0,3\*USB2.0
- \* 2\*COM, 16-bit iso DIO, 1\*Line out,1\*Mic,2\*Mini PCIe
- \* 1\*M.2 2242B-Key
- \* 1\*2.5" SATA3 bay, 1\*mSATA, Anti-vibration design
- \* DC 6~48V wide voltage power supply, ITPS vehicle management function



## Product Overview

KMDA-3602 is a high-performance vehicle computer with the latest combination of active and passive heat dissipation design. It is equipped with Intel®Skylake-S/Kabylake-S processor, DC 6-48V wide voltage power supply, ITPS time-delay switch function. CPU+GPU dual processor, high performance, multiple network ports, multiple displays, multiple wireless communications and shock absorption design. It is suitable for mobile law enforcement vehicles and special vehicles.

## Product Parameters

### Processor

CPU	Intel Skylake-S/Kabylake-S Celeron/Pentium/Core i3/i5/i7 Q170 chipset
RAM	2*260-Pin ,DDR4,2133/2400MHz, Max. 32GB
Graphics	Intel® Gen. 9 HD Graphics, HEVC/H265 HW HD codec Integrated DP/HDMI, Support dual 4K ultra-high-definition display, Independent Graphics 3*DP+1*HDMI four 4K display 1*MXM 3.1 GPU Module, support up to 120W power consumption GPU
LAN	2*Intel I210AT PCIe ,10/100/1000Mbps ; 1*Intel I219 LM, support iVpro, 4*Intel I210AT PCIe ,Full bandwidth POE,4*LAN (optional)
USB	6* USB3.0, 2*USB2.0 , 1*USB2.0 (build-in)
Display	Integrated 1*DP+1*HDMI+1*VGA ; Discrete 3*DP+1*HDMI
Audio	1*Line out+1*Mic, optional audio
Serial port /Others	2*RS232/422/485 8/12-bit 2.5KV Optically isolated input (1*10Pin Phoenix terminal)
DIO	8/12-bit 2.5KV Optically isolated output (1*10PinPhoenix terminal) Optional 16-bit TTL programming input and output /24-bit iso DIO

### Storage

Storage	1*2.5" SATA3,HDD/SSD,1*mSATA full-height card,1*M.2 2242 B-key
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### Others

Indicator light	1*power indicator, 1*hard disk indicator, 3*CPU temperature indicator (Red is alarm, Yellow is high temperature, Green is normal temperature)
Control switch	1*Power switch, 1*Reset switch; 1*2pin terminal switch signal, 1*AT/ATX selector switch, 1*CMOS/Clear selector switch
Watchdog timer	Watchdog timeout programmable via software 1 to 255 second

### Expansion

Expansion Port	1*Mini PCIe, with SIM slot, 1*half-length Mini PCIe, 1*M.2 B-key,with SIM slot,,support dual 4G LTE/Wifi/BT and GPS/BDS navigation, I-Port:optional 1*LPT、16-bit DIO, or 2*Mini PCIe/M.2 Function card, i.e. CAN BUS
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### Power Supply

Input voltage	DC 6~48V input,
Power consumption	115.92W(I5-7500T +GTX 1060M GPU)

### Mechanical

Structure	Aluminum Chassis, SGCC frame
Color	Silver gray
Installation	Desktop mounting, Anti-vibration plane
Dimension(W*H*D)	284*222*81mm
Net Weight	5.60KG (with Anti-vibration plane,no GPU)

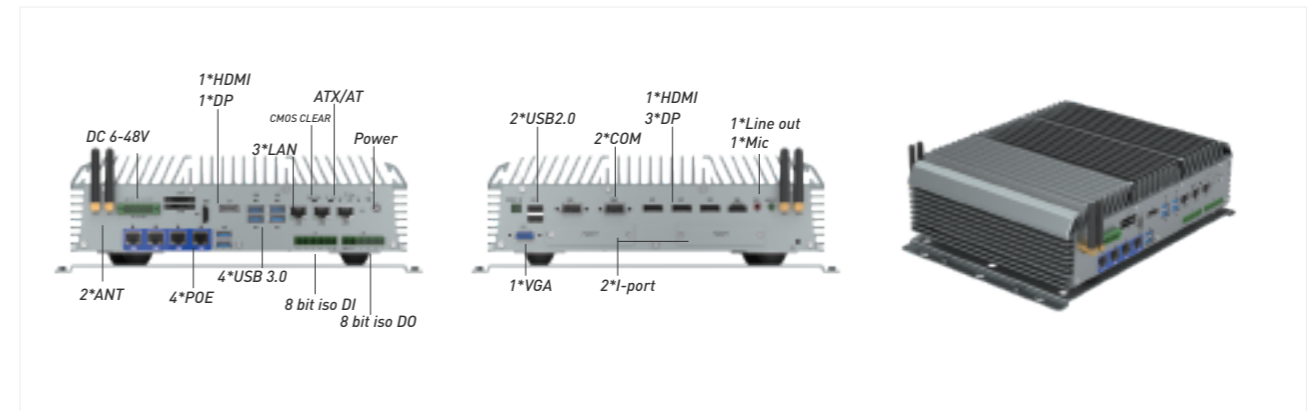
### Environment

Operating Temp	-20°C~65°C – 35WCPU,Fanless design,no GPU, -10°C~50°C – 35WCPU,with Fan, 80WGPU;
Storage Temp	-40°C~85°C
Storage Humidity	10~90%@40°C, No condensation
Vibration	5.5 grms/5~500Hz/random/during operation (SSD) 1.5 grms/5~500Hz/random/during operation (HDD)
Shock	55g peak acceleration(duration 11ms) with SSD; 25g peak acceleration(duration 11ms) with HDD
Certificate/EMC	CE/FCC Class B,E-Mark

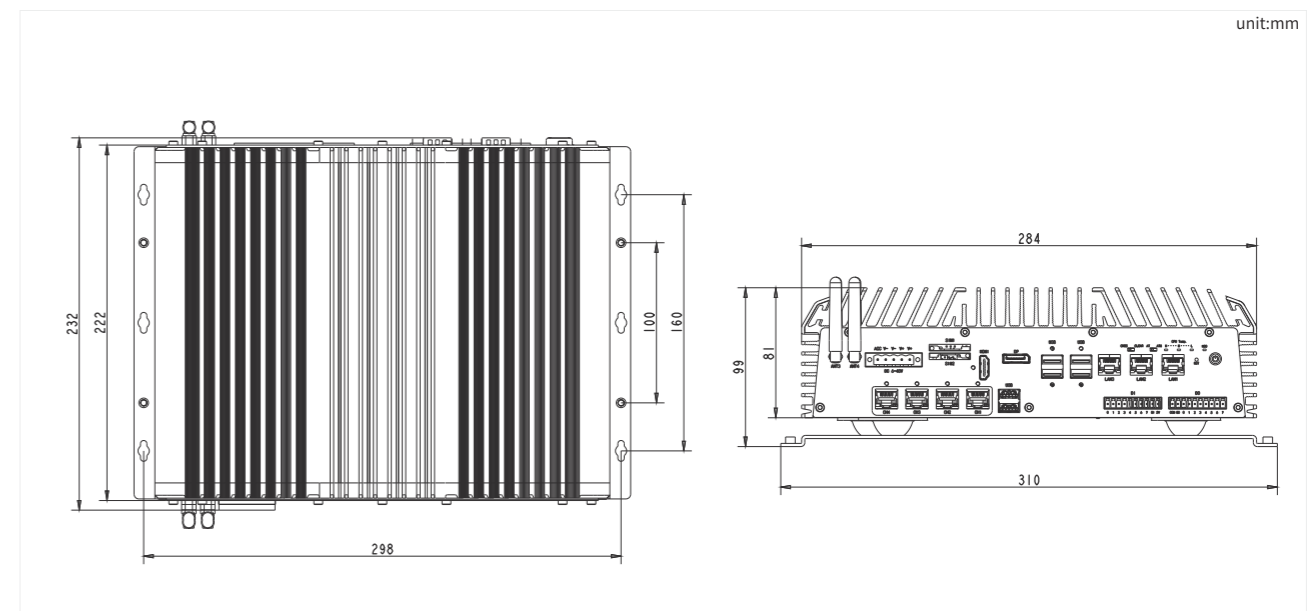
### OS

OS	Windows 7, Windows 10, Linux Fedora,Ubuntu
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## I/O View



## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-3602/S001	Intel® Q170 chip set+ SKL/KAL-S LGA1151 CPU	MXM3.1 GPU slot , 3*LAN, 4*POE, 6*USB3.0, 3*USB2.0, 2*COM, 16-bit sio DIO, 1*M.2, 2*Mini PCIe,2*HDMI,4*DP,1*VGA, 1*Line out,1*Mic, 2*I-port, 1*2.5" SATA3 bay,1*mSATA, ITPS, DC 6~48V
KMDA-3602/T001		7*LAN, 6*USB3.0, 3*USB2.0, 2*COM,16-bit DIO, 1*M.2, 2*Mini PCIe, 1*HDMI, 1*DP, 1*VGA, 1*Line out, 1*Mic, 2*I-port, 1*2.5" SATA3 bay,1*mSATA, ITPS DC 6~48V
NVIDIA GT 1030-2G		MXM3.1 Type A, NVIDIA GT 1030,GDDR5 2GB,64bit,384 CUDA Cores, with radiator
NVIDIA GTX 1050-2G		MXM3.1 Type A, NVIDIA GTX 1050,GDDR5 2GB,128bit,768 CUDA Cores, with radiator
NVIDIA GTX 1050TI-4G		MXM3.1 Type A, NVIDIA GTX 1050TI,GDDR5 4GB,128bit,768 CUDA Cores, with radiator
NVIDIA GTX 1060M-6G		MXM3.1 Type B, NVIDIA GTX 1060M,GDDR5 6GB,192bit,1280 CUDA Cores, with radiator
NVIDIA GTX 1070M-8G		MXM3.1 Type B, NVIDIA GTX 1070M,GDDR5 8GB,256bit,2048 CUDA Cores, with radiator
VIDIA GTX 1650-4G		MXM3.1 Type A, NVIDIA GTX 1650,GDDR5 4GB,128bit, 896 CUDA Cores, with radiator
NVIDIA GTX 1660S-6G		MXM3.1 Type B, NVIDIA GTX 1660S,GDDR6 6GB,192bit,1408 CUDA Cores, with radiator
MLU220-MXM		MXM3.1 Type A, Cambricon MLU-220, LPDDR4 8GB,64bit,16TOPS(INT8), with radiator
PA-120DC19		AC/DC power adapter,DC19V/6.32A,120W
PA-220DC24		AC/DC power adapter,DC24V@9.17A ,220W

# KMDA-3820

Intel® Skylake-U/Kabylake-U CPU, 2/3\*LAN, 7\*USB, 4\*COM, Dual 4K display, 8/24-bit DIO, iVpro, 2\*PCIe/PCI slot, DC IN 12~24V

## Key Specification

- Aluminum Chassis, fanless heat dissipation design
- Intel Skylake-U/Kabylake-U CPU
- 1\*DDR4 2133MHz SODIMM RAM, Max. 16GB
- 1\*HDMI and 1\*DP dual 4K display, 1\*VGA
- 2/3\*Gig LAN, 4\*USB3.0, 3\*USB2.0 (one is built-in)
- 4\*COM, 8-bit DIO, 1\*Line out,1\*Mic
- 2\*PCIeX4/PCI slot, 1\*Mini PCIe(PCIe+USB)
- 1\*mSATA, 1\*2.5" SATA bay, Anti-vibration design
- Support Intel vPro technology and optional TPM 2.0 security encryption
- DC 12~24V wide voltage power supply
- Half-open L-shaped folding cover, convenient for disassembly and assembly of functional modules and hard drives



## Product Overview

KMDA-3820 is a new industrial design box PC, with aluminum chassis and fanless design, equipped with Intel® Skylake-U/Kabylake-U processor, optional support TPM2.0 and support iVpro technology, DC 12~24V. L-shaped folding Cover design makes function modules installation easily, very suitable for AI, ITS, Machine Vision and other fields.

## Product Parameters

### Processor

CPU	Intel Skylake-U /Kabylake-U / Celeron/Core i3/i5/i7
RAM	1*260-Pin ,DDR4,2133MHz, Max. 16GB
Graphics	Intel Gen. 9th HD Graphics, HEVC/H265 HW HD codec, HDMI:4096*2304@24Hz, DP:4096*2304@60Hz,VGA:1920*1200@60Hz
LAN	2*Intel I211AT PCIe ,10/100/1000Mbps ; 1*Intel I219 LM, support iVpro,
USB	4* USB3.0, 2*USB2.0 , 1*USB2.0 (built-in)
Display	1*DP+1*HDMI+1*VGA
Audio	1*Line out+1*Mic, optional audio
Serial port /Others	2*RS232/422/485, 2*RS232, 1*PS/2 (Mouse and keyboard)
DIO	8-bit DIO, TTL Programmable input-output (2*5Pin) Optional 16-bit DIO, TTL, Programmable input and output

### Storage

Storage	1*2.5" SATA3,HDD/SSD,1*mSATA full-height card,Support AHCI mode
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### Others

Indicator light	1*power indicator, 1*hard disk indicator, 3*CPU temperature indicator (Red is alarm, Yellow is high temperature, Green is normal temperature)
Control switch	1*Power switch (front panel), 1*2 pin terminal switch signal (front panel), 1*AT/ATX selector switch (front panel)
Watchdog timer	Watchdog timeout programmable via software 1 to 255 second
TCPM/TPM	support TPM2.0 (optional)

### Expansion

Expansion Port	1*Mini PCIe, with SIM slot, support 4G LTE/Wifi/BT, 1* PCIe X4 (X4 signal) ,1*PCIe X4 (X1 signal) ,or 2*PCI
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### Power Supply

Input voltage	DC 12~24V input,
Power consumption	58.56W (I5-7200U 16GB DDR4)

### Mechanical

Structure	Aluminum Chassis, SGCC frame
Color	Silver gray
Installation	Desktop mounting
Dimension(W*H*D)	200*200*128.3mm
Net Weight	3.65KG

### Environment

Operating Temp	-20°C~70°C – Fanless design, with air flow, wide-temperature SSD; -10°C~50°C – Fanless design, with air flow, normal temperature HDD
Storage Temp	-40°C~85°C
Storage Humidity	10~90%@40°C, No condensation

Vibration	5 grms/5~500Hz/random/during operation (SSD) 1 grms/5~500Hz/random/during operation (HDD)
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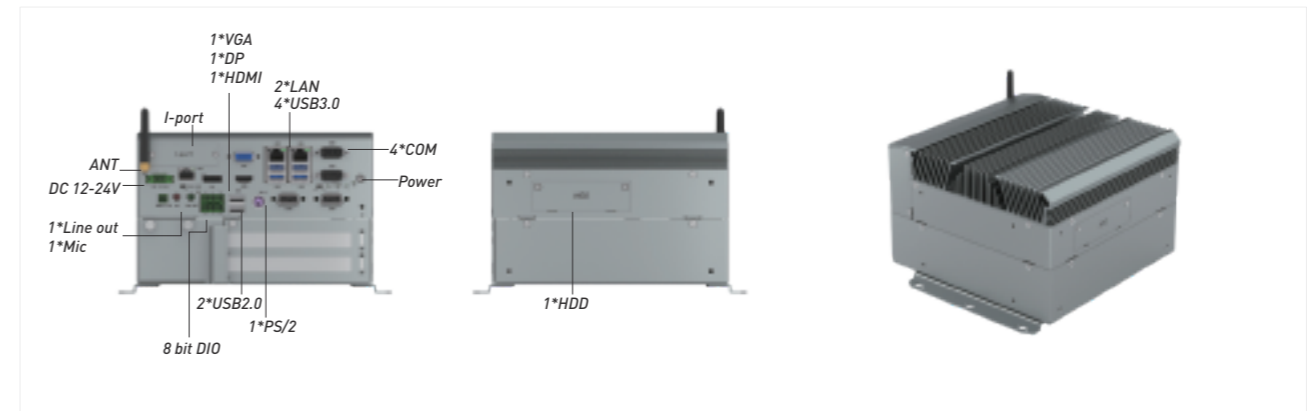
Shock	50g peak acceleration(duration 11ms) with SSD; 20g peak acceleration(duration 11ms) with HDD
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Certificate/EMC	CE/FCC Class A
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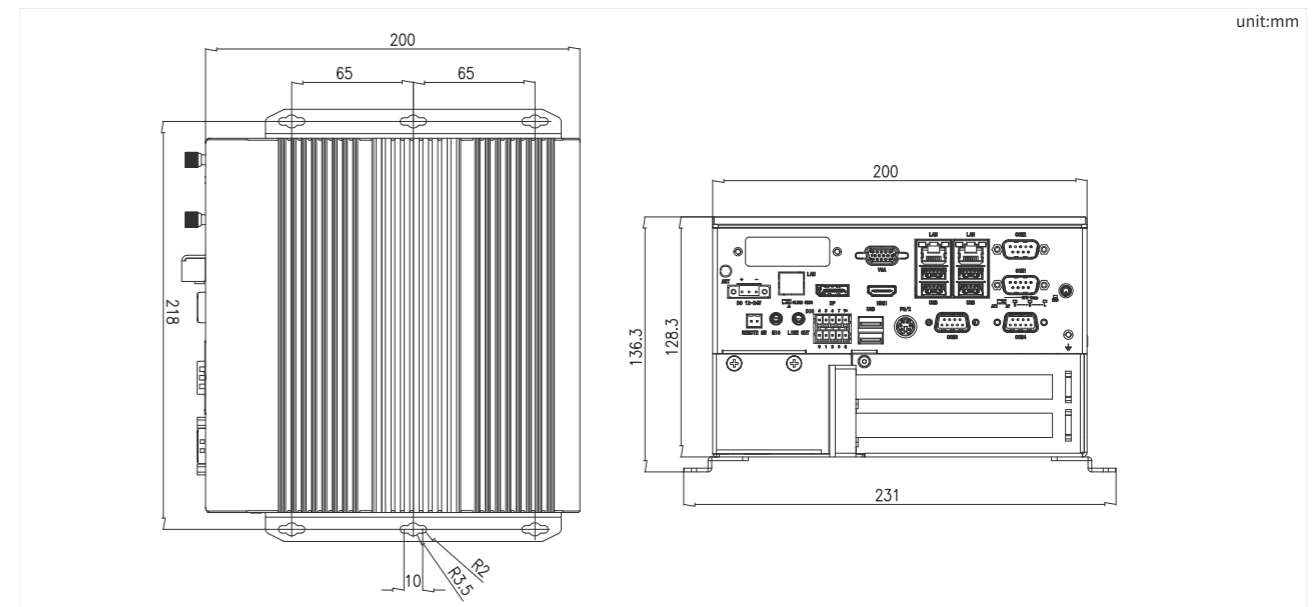
### OS

OS	Windows 7, Windows 10, Linux Fedora,Ubuntu
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## I/O View



## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-3820/S001	Intel I3-6100U/I3-7100U	3*LAN, 4*USB3.0, 3*USB2.0, 4*COM, 8-bit DIO, 1*Mini PCIe,1*HDMI, 1*DP, 1*VGA, 1*PS/2, 1*Line out,1*Mic, 1*2.5" SATA bay, 1*mSATA, DC 12~24V
KMDA-3820/S002	Intel I5-6200U/I5-7200U	
KMDA-3820/S003	Intel I7-6500U/I7-7500U	
KMDA-3820/S004	Intel Celeron 3855U/3865U	
ECB-238	Expansion backplane (choose one)	1*PCIe X4,1*PCIe X4 (X1 signal)
ECB-239		2*PCI
PA-60DC12		AC/DC adapter, DC 12V/5A 60W

# KMDA-3610

Intel® Skylake-S/Kabylake-S CPU, 2\*LAN, 4\*USB3.0, HDMI, DP, VGA, 3 Displays, 2\*SATA3, DC 12~24V wide voltage power supply

## Key Specification

- Aluminum Chassis, fanless heat dissipation design
- Intel Skylake-S/Kabylake-S CPU
- 2\*DDR4 2400/2133MHz SODIMM RAM, Max. 32GB
- 1\*DP, 1\*HDMI & 1\*VGA three display
- 2\*LAN, 4\*USB3.0, 3\*USB2.0, 4\*COM, (8+16)- bit DIO
- 1\*Mini PCIe(PCIe+USB),1\*M.2 2242 B-Key
- 1\*mSATA, 2\*2.5" SATA3
- Optional support TPM2.0 security encryption
- DC 12~24V wide voltage power supply



## Product Overview

KMDA-3610 is a fanless high-performance box PC, equipped with Intel® Skylake-S/Kabylake-S series processors, and supports 4G and Wifi/BT wireless functions. DC 12~24V wide voltage power supply, high performance, rich IO function interface. It is suitable for applications in automation, machine vision and intelligent transportation industries.

## Product Parameters

### Processor

CPU Intel Skylake-S/Kabylake-S Celeron/Pentium/Core i3/i5/i7, H110 chipset

RAM 2\*260-Pin ,DDR4,2133/2400MHz, Max. 32GB

Graphics Intel Gen. 9 HD Graphics,HEVC/H265 HW HD codec, HDMI:3840\*2160@30Hz, DP:4096\*2304@60Hz, VGA:1920\*1200@60Hz, Support 2 independent display, 1 mirror display

LAN 1\*Intel I211AT PCIe ,10/100/1000Mbps; 1\*Intel I219 LM,

USB 4\* USB3.0, 2\*USB2.0 , 1\*USB2.0 (build-in)

Display 1\*DP+1\*HDMI+1\*VGA

Audio 1\*Line out+1\*Mic,optional audio

Serial port /Others 2\*RS232/422/485, 2\*RS232,1\*PS/2 (Mouse and keyboard)

DIO 8-bit DIO, TTL Programmable input and output (2\*5Pin)

16-bit DIO, TTL Programmable input and output (DB25)

### Storage

Storage 2\*2.5" SATA3,HDD,1\*mSATA full-height card,1\*M.2 2242 B-key

### Others

Indicator light 1\*power indicator, 1\*hard disk indicator, 3\*CPU temperature indicator (Red is alarm, Yellow is high temperature, Green is normal temperature)

Control switch 1\*Power switch, 1\*Reset switch; 1\*2pin terminal switch signal, 1\*AT/ATX selector switch, 1\*CMOS/Clear selector switch

Watchdog timer Watchdog timeout programmable via software 1 to 255 second

TCPPM/TPM support TPM2.0 (optional)

### Expansion

Expansion Port 1\*Mini PCIe, with SIM slot, support m4G LTE/Wifi/BT,

### Power Supply

Input voltage DC 12~24V input,

Power consumption 68.4W(I7-6700T CPU 16GB DDR4)

### Mechanical

Structure Aluminum Chassis, SGCC

Color Silver gray

Installation Desktop mounting

Dimension(W\*H\*D) 221\*251\*88mm

Net Weight 4.84KG

### Environment

Operating Temp -20°C~65°C – with air flow, wide-temperature SSD, -10°C~55°C – with air flow, normal temperature HDD

Storage Temp -40°C~85°C

Storage Humidity 10~90%@40°C, No condensation

Vibration 5 grms/5~500Hz/random/during operation (SSD) 1 grms/5~500Hz/random/during operation (HDD)

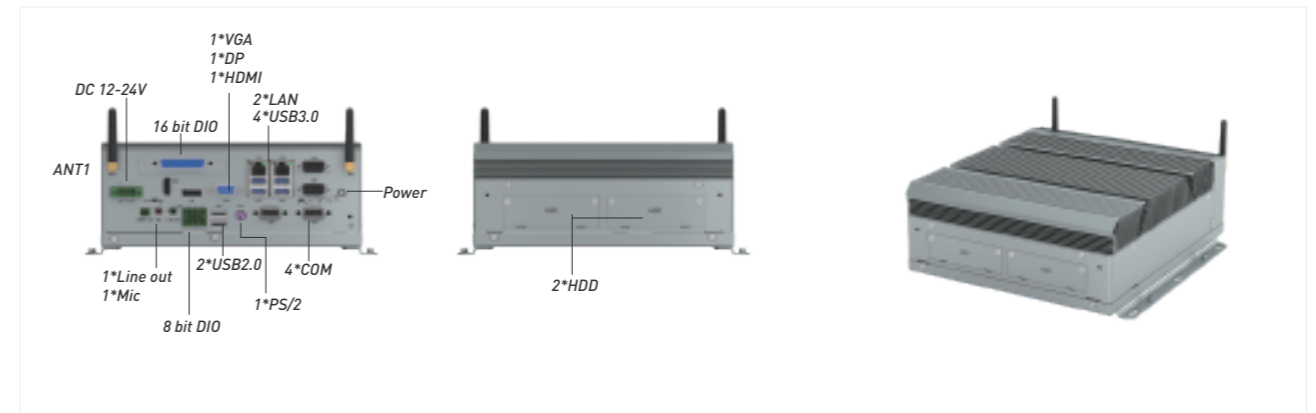
Shock 50g peak acceleration(duration 11ms) with SSD; 20g peak acceleration(duration 11ms) with HDD

Certificate/EMC CE/FCC Class B

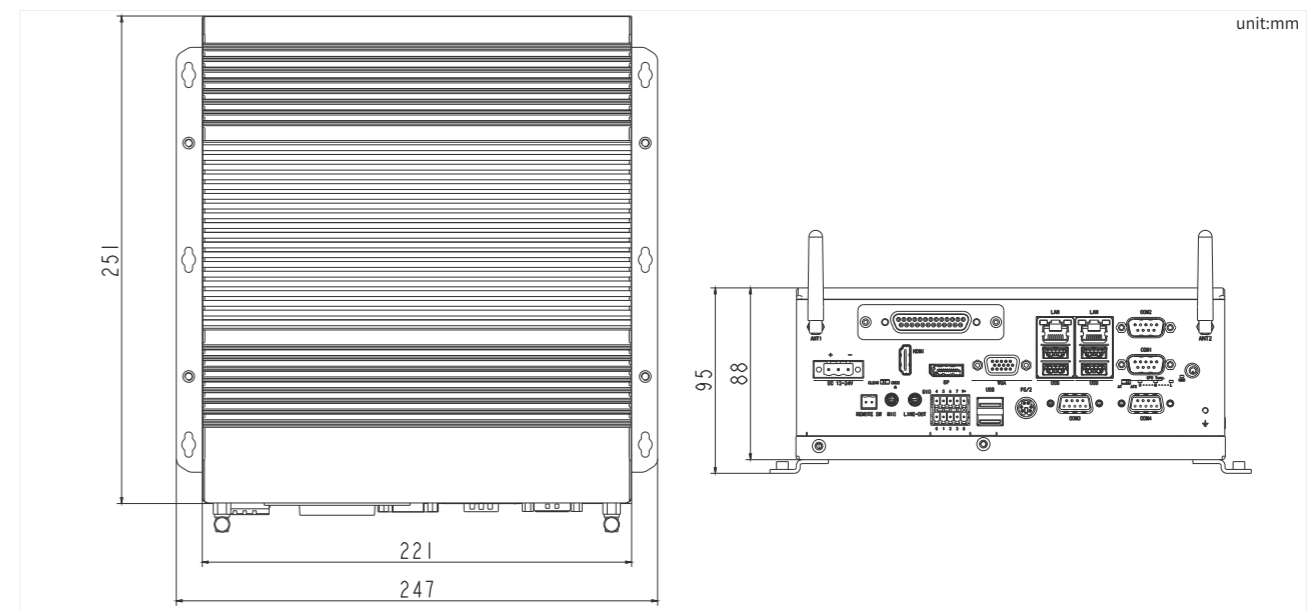
### OS

OS Windows 7, Windows 10, Linux Fedora,Ubuntu

## I/O View



## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-3610/S001	Intel® Skylake-S/Kabylake-S LGA1151 CPU	H110 Chipset, 2*DDR4, 2*LAN, 4*USB3.0,3*USB2.0, 4*COM, 1*Mini PCIe, 1*HDMI, 1*DP, 1*VGA, 1*Line out,1*Mic, 8+16-bit DIO, 1*PS/2, 2*2.5" SATA bay, 1*M.2,1*mSATA, DC 12~24V
PA-120DC19		AC/DC adapter, DC 19V/6.32A 120W
AC-140		8-channel optical isolation input\8-channel high-power relay board

# KMDA-3920

Intel® Skylake-S/Kabylake-S CPU, 2\*LAN, 4\*USB3.0, PCIe X16+PCIe X4/2\*PCI expansion, DC 12~24V wide voltage power supply

## Key Specification

- Aluminum Chassis, SGCC frame
- Intel Skylake-S/Kabylake-S CPU
- 2\*DDR4 2400/2133MHz SODIMM RAM, Max.32GB
- 1\*DP, 1\*HDMI & 1\*VGA, Optional three independent displays(Intel Q170)
- 2\*LAN, 4\*USB3.0, 3\*USB2.0, 4\*COM, 8-bit DIO
- Support PCIe X16+PCIeX4 or 2\*PCI expansion
- 1\*Mini PCIe(PCIe+USB),1\*M.2 2242 B-Key
- 1\*mSATA, 2\*2.5" SATA3, support RAID0,1(Intel Q170)
- Optional TPM2.0 security encryption, support Intel vPro technology(Intel Q170)
- DC 12~24V wide voltage power supply



## Product Overview

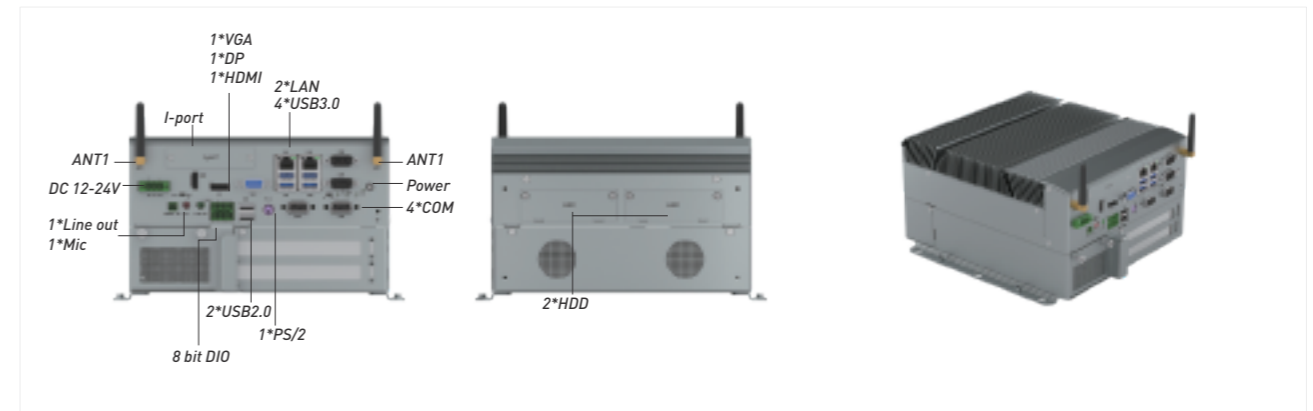
KMDA-3920 is a high-performance box computer with expansion, equipped with Intel® Skylake-S/Kabylake-S series processors, H110/Q170 chipset, 2\*DDR4 2133/2400MHz dual-channel memory supports up to 32GB. The easy-to-detach L-shaped folding cover facilitates the installation of functional modules. It is very suitable for applications in video security, machine vision and intelligent AI industries.

## Product Parameters

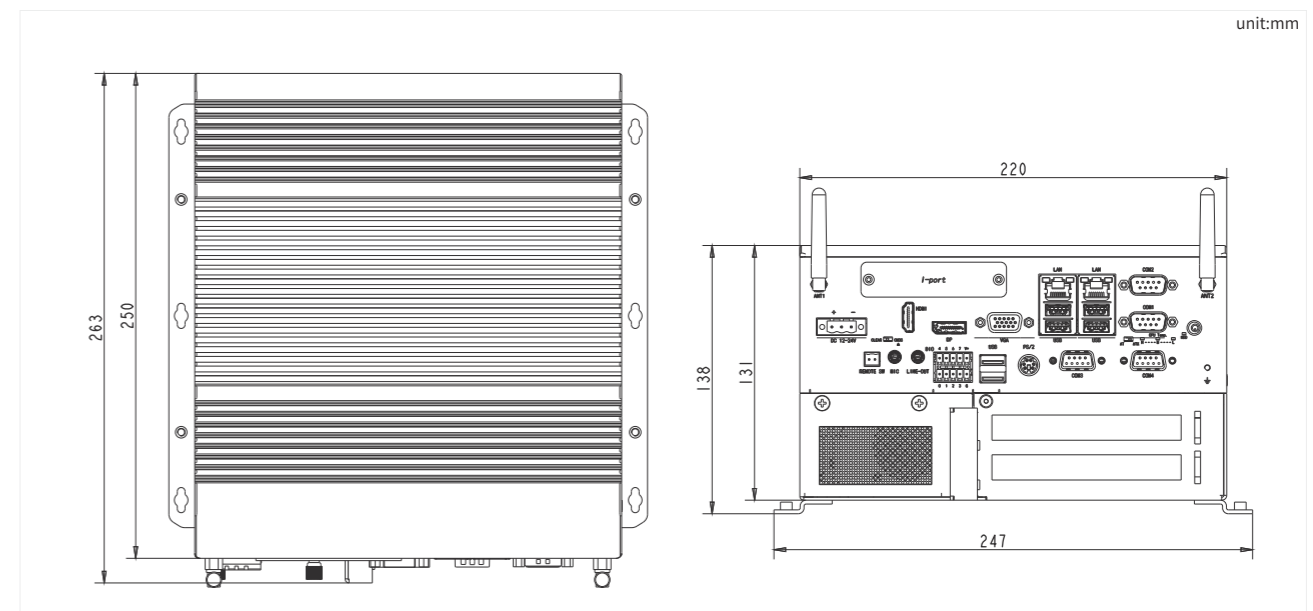
<b>Processor</b>	Intel Skylake-S/Kabylake-S Celeron/Pentium/Core i3/i5/i7 H110 chipset, optional Q170 chipset
<b>CPU</b>	
<b>RAM</b>	2*260-Pin ,DDR4,2133/2400MHz, Max. 32GB
<b>Graphics</b>	Intel Gen. 9 HD Graphics,HEVC/H265 HW HD codec, Support 3 independent displays(Intel Q170) , HDMI:3840*2160@30Hz, DP:4096*2304@60Hz,VGA:1920*1200@60Hz,
<b>LAN</b>	1*Intel I211AT PCIe ,10/100/1000Mbps ; 1*Intel I219 LM, support iVpro (Intel Q170) ,
<b>USB</b>	4* USB3.0, 2*USB2.0 , 1*USB2.0 (build-in)
<b>Display</b>	1*DP+1*HDMI+1*VGA
<b>Audio</b>	1*Line out+1*Mic, optional audio
<b>Serial port /Others</b>	2*RS232/422/485, 2*RS232, 1*PS/2 (Mouse and keyboard)
<b>DIO</b>	8-bit DIO, TTL Programmable input and output (1*10pin)
<b>Storage</b>	
<b>Storage</b>	2*2.5" SATA3,HDD,support RAID0,1(Intel Q170), 1*mSATA full-height card,1*M.2 2242 B-key
<b>Others</b>	
<b>Indicator light</b>	1*power indicator, 1*hard disk indicator, 3*CPU temperature indicator (Red is alarm, Yellow is high temperature, Green is normal temperature)
<b>Control switch</b>	1*Power switch, 1*Reset switch; 1*2pin terminal switch signal, 1*AT/ATX selector switch, 1*CMOS/Clear selector switch
<b>Watchdog timer</b>	Watchdog timeout programmable via software 1 to 255 second
<b>TCPPM/TPM</b>	support TPM2.0 (optional)

<b>Expansion</b>	1*Mini PCIe,with SIM slot, support 4G LTE/Wifi/BT, 1*PCIe X16, 1*PCIe X4,or 2*PCI
<b>Expansion Port</b>	
<b>Power Supply</b>	
<b>Input voltage</b>	DC 12~24V input,
<b>Power consumption</b>	68.78W (I7-6700T , 4GB DDR4, 1TB HDD,Install card)
<b>Mechanical</b>	
<b>Structure</b>	Aluminum Chassis, SGCC frame
<b>Color</b>	Silver gray
<b>Installation</b>	Desktop mounting, wall mounting
<b>Dimension(W*H*D)</b>	220*250*131mm
<b>Net Weight</b>	5.27KG
<b>Environment</b>	
<b>Operating Temp</b>	-20°C~65°C – Fanless design, wide-temperature SSD, -10°C~55°C – Fanless design, normal temperature HDD;
<b>Storage Temp</b>	-40°C~85°C
<b>Storage Humidity</b>	10~90%@40°C, No condensation
<b>Vibration</b>	5 grms/5~500Hz/random/during operation (SSD) 1 grms/5~500Hz/random/during operation (HDD)
<b>Shock</b>	50g peak acceleration(duration 11ms) with SSD; 20g peak acceleration(duration 11ms) with HDD
<b>Certificate/EMC</b>	CE/FCC Class B
<b>OS</b>	
<b>OS</b>	Windows 7, Windows 10, Linux Fedora,Ubuntu

## I/O View



## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-3920/S001	Intel® Skylake-S/Kabylake-S LGA1151 CPU,H110 Chipset	2*DDR4, 2*LAN, 4*USB3.0,3*USB2.0, 4*COM, 1*Mini PCIe, 1*HDMI, 1*DP, 1*VGA, 1*Line out,1*Mic, 8-bit DIO, 1*PS/2, 2*2.5"SATA bay, 1*M.2, 1*mSATA, DC 12~24V
KMDA-3920/S002	Intel® Skylake-S/Kabylake-S LGA1151 CPU, Q170 Chipset	
ECB-241	Expansion backplane (choose one)	PCIeX16+PCIeX4
ECB-245		2*PCI
PA-120DC19		AC/DC adapter, DC19V/6.32A 120W
PA-220DC24		AC/DC adapter, DC24V/9.17A 220W
AC-140		8-channel optical isolation input\8-channel high-power relay board

# KMDA-3920ETC

Intel® Skylake-S/Kabylake-S CPU, 2\*LAN, 4\*USB3.0, HDMI, DP, VGA, 10\*COM, 16+16-bit DIO, 1\*PCIeX16/1\*PCI expansion,DC 12~24V

## Key Specification

- Aluminum Chassis, fanless heat dissipation design
- Intel Skylake-S/Kabylake-S CPU
- 2\*DDR4 2400/2133MHz SODIMM RAM, Max.32GB
- 1\*DP, 1\*HDMI & 1\*VGA, Optional three independent displays(Intel Q170)
- 2\*LAN, 4\*USB3.0, 10\*COM, 16+16-bit DIO
- Support 1\*PCIe X16 or 1\*PCI expansion slot
- 1\*Mini PCIe(PCIe+USB),1\*M.2 2242 B-Key
- 1\*mSATA, 2\*2.5" SATA3, support RAID0,1(Intel Q170)
- Optional TPM2.0 security encryption, support Intel vPro technology (Intel Q170)
- DC 12~24V wide voltage power supply



## Product Overview

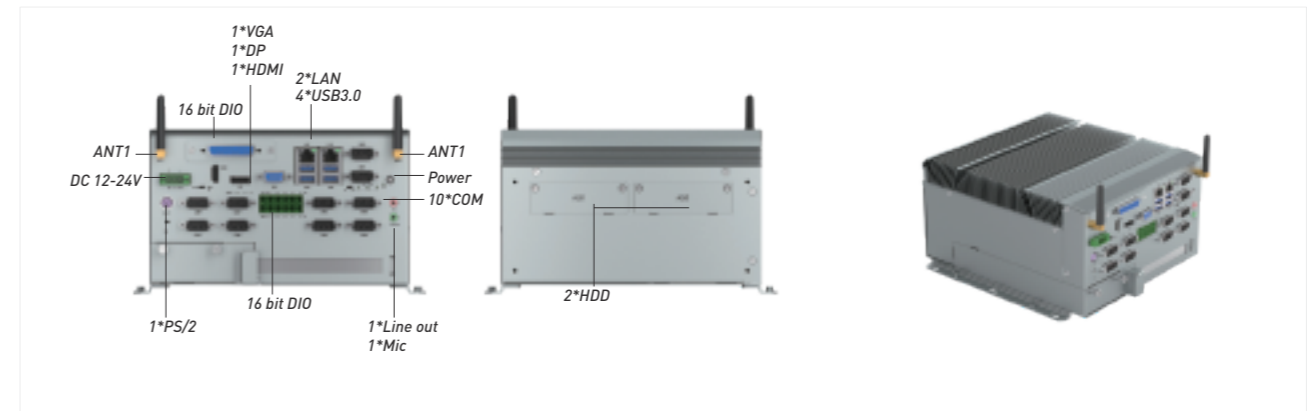
KMDA-3920-ETC is a fanless box computer with expansion, equipped with Intel® Skylake-S/Kabylake-S processor, H110/Q170 chipset, 2\*DDR4 2133/2400MHz, dual channel memory, support Max. 32GB. It is very suitable for video security, machine vision and highway Electronic Toll Collection(ETC) industry applications.

## Product Parameters

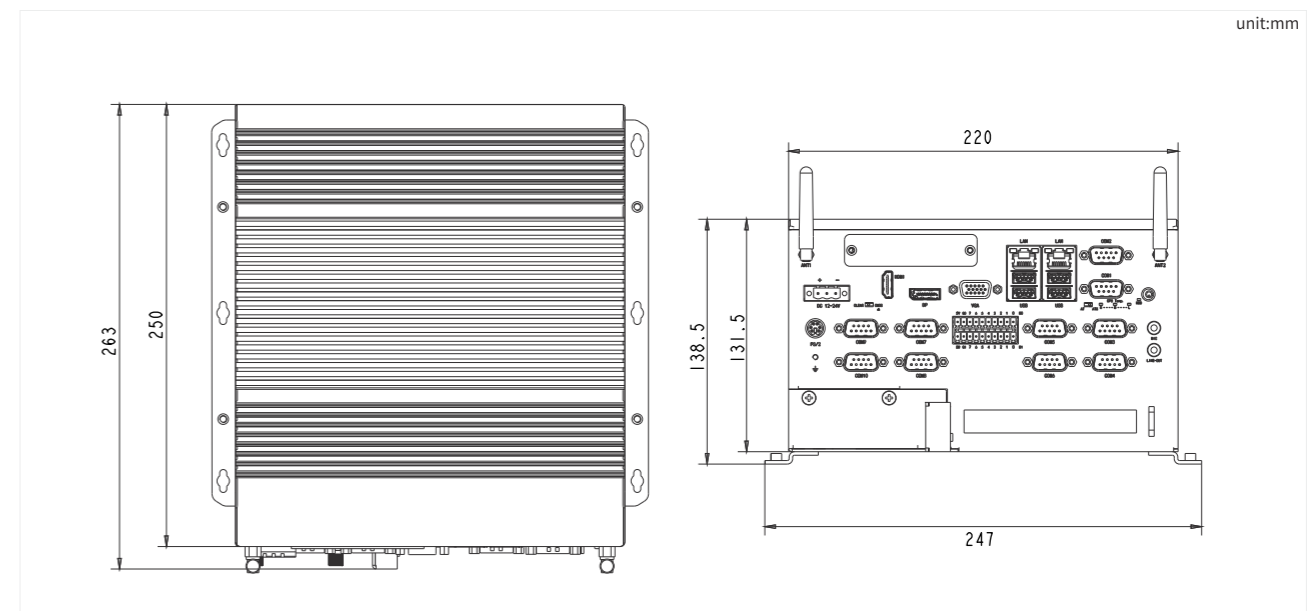
<b>Processor</b>	Intel Skylake-S/Kabylake-S Celeron/Pentium/Core i3/i5/i7, H110 chipset, optional Q170 chipset
<b>CPU</b>	H110 chipset, optional Q170 chipset
<b>RAM</b>	2*260-Pin, DDR4, 2133/2400MHz, Max. 32GB
<b>Graphics</b>	Intel Gen. 9 HD Graphics, HEVC/H265 HW HD codec, HDMI: 3840*2160@30Hz, Support 3 independent displays(Intel Q170), DP: 4096*2304@60Hz, VGA: 1920*1200@60Hz,
<b>LAN</b>	1*Intel I211AT PCIe, 10/100/1000Mbps; 1*Intel I219 LM, support iVpro (Intel Q170),
<b>USB</b>	4* USB3.0, 1*USB2.0 (build-in)
<b>Display</b>	1*DP+1*HDMI+1*VGA
<b>Audio</b>	1*Line out+1*Mic, optional audio
<b>Serial port /Others DIO</b>	2*RS232/422/485, 8*RS232, 1*PS/2 (Mouse and keyboard) 16-bit DIO, TTL Programmable input and output (2*10Pin) 16-bit DIO, TTL Programmable input and output (DB25)
<b>Storage</b>	2*2.5" SATA3, HDD, support RAID0,1(Intel Q170), 1*mSATA full-height card, 1*M.2 2242 B-key
<b>Others</b>	1*power indicator, 1*hard disk indicator, 3*CPU temperature indicator (Red is alarm, Yellow is high temperature, Green is normal temperature) 1*Power switch, 1*Reset switch; 1*2pin terminal switch signal, 1*AT/ATX selector switch, 1*CMOS/Clear selector switch Watchdog timer Watchdog timeout programmable via software 1 to 255 second TPCM/TPM support TPM2.0 (optional)

<b>Expansion</b>	1*Mini PCIe, with SIM slot, support 4G LTE/Wifi/BT, 1*PCIe X16, or 1*PCI
<b>Power Supply</b>	Input voltage DC 12~24V input, Power consumption 68.78W (I7-6700T, 4GB DDR4, 1TB HDD, Install card)
<b>Mechanical</b>	Structure Aluminum Chassis, SGCC frame Color Silver gray Installation Desktop mounting, wall mounting Dimension(W*H*D) 220*250**131.5mm Net Weight 5.27KG
<b>Environment</b>	Operating Temp -20°C~65°C – Fanless design, wide-temperature SSD, -10°C~55°C – Fanless design, normal temperature HDD; Storage Temp -40°C~85°C Storage Humidity 10~90%@40°C, No condensation Vibration 5 grms/5~500Hz/random/during operation (SSD) 1 grms/5~500Hz/random/during operation (HDD) Shock 50g peak acceleration(duration 11ms) with SSD; 20g peak acceleration(duration 11ms) with HDD Certificate/EMC CE/FCC Class B
<b>OS</b>	Windows 7, Windows 10, Linux Fedora, Ubuntu

## I/O View



## Dimensions



## Ordering Information

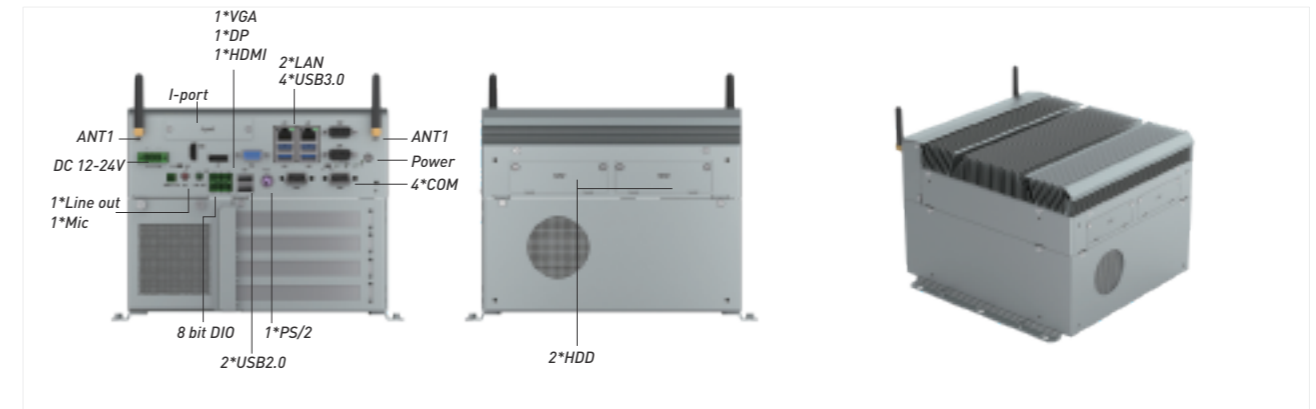
Model	Processor	Specifications
KMDA-3920-ETC/S001	Intel® Skylake-S/Kabylake-S LGA1151 CPU, H110 Chipset	2*DDR4, 2*LAN, 4*USB3.0, 1*USB2.0, 10*COM, 1*Mini PCIe, 1*HDMI, 1*DP, 1*VGA, 1*Line out, 1*Mic, 16+16-bit DIO, 1*PS/2, 2*2.5" SATA bay, 1*M.2, 1*mSATA, DC 12~24V
ECB-241	Expansion backplane (choose 1)	1*PCIeX16
ECB-245		1*PCI
PA-120DC19		AC/DC power adapter, DC19V/6.32A, 120W
PA-220DC24		AC/DC power adapter, DC24V@9.17A, 220W
PA-300DC24		AC/DC power adapter, DC24V@12.5A, 300W
AC-140		8-channel isolated input and 8-channel power relay output terminal board, DC 12V power supply, source signal: 16-bit TTL GPIO

# KMDA-3921

Intel® Skylake-S/Kabylake-S CPU, 2\*LAN, 4\*USB3.0, HDMI, DP, VGA, 3 Displays, PCIe X16+PCIe X1+2\*PCI expansion, DC 12~24V wide voltage power supply I/O View

## Key Specification

- Aluminum Chassis, SGCC box
- Intel Skylake-S/Kabylake-S CPU
- 2\*DDR4 2400/2133MHz SODIMM RAM, Max.32GB
- 1\*DP, 1\*HDMI & 1\*VGA, Optional three independent displays(Intel Q170)
- 2\*LAN, 4\*USB3.0, 3\*USB2.0, 4\*COM, 8-bit DIO
- 1\*PCIe X16+1\*PCIeX1+2\*PCI expansion
- 1\*Mini PCIe(PCIe+USB),1\*M.2 2242 B-Key
- 1\*mSATA, 2\*2.5" SATA3, support RAID0,1(Intel Q170)
- Optional TPM2.0 security encryption, support Intel vPro technology (Intel Q170)
- DC 12~24V wide voltage power supply



## Product Overview

KMDA-3921 is a embedded high-performance box computer with expansion, equipped with Intel® Skylake-S/Kabylake-S processor, H110/Q170 chipset, 2\*DDR4 2133/2400MHz, dual channel memory, support Max. 32GB. The easy-to-detach L-shaped folding cover is convenient for the installation of functional modules. It is very suitable for applications in video security, machine vision and intelligent AI industries.

## Product Parameters

### Processor

CPU	Intel Skylake-S/Kabylake-S Celeron/Pentium/Core i3/i5/i7, H110 chipset, optional Q170 chipset
RAM	2*260-Pin ,DDR4,2133/2400MHz,Max. 32GB
Graphics	Intel Gen. 9 HD Graphics,HEVC/H265 HW HD codec, support 3 independent displays (Intel Q170), HDMI:3840*2160@30Hz, DP:4096*2304@60Hz,VGA:1920*1200@60Hz,
LAN	1*Intel I211AT PCIe ,10/100/1000Mbps ; 1*Intel I219 LM, support vPro (Intel Q170) ,
USB	4* USB3.0, 2*USB 2.0, 1*USB2.0 (build-in)
Display	1*DP+1*HDMI+1*VGA
Audio	1*Line out+1*Mic, optional audio
Serial port /Others	2*RS232/422/485, 2*RS232, 1*PS/2 (Mouse and keyboard)
DIO	8-bit DIO (10PinPhoenix terminal) 16-bit DIO (build-in), TTL Programmable input and output

### Storage

Storage	2*2.5" SATA3,HDD,support RAID0,1(Intel Q170), 1*mSATA full-height card,1*M.2 2242 B-key
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### Others

Indicator light	1*power indicator, 1*hard disk indicator, 3*CPU temperature indicator (Red is alarm, Yellow is high temperature, Green is normal temperature)
Control switch	1*Power switch, 1*Reset switch; 1*2pin terminal switch signal, 1*AT/ATX selector switch, 1*CMOS/Clear selector switch
Watchdog timer	Watchdog timeout programmable via software 1 to 255 second
TCPM/TPM	support TPM2.0 (optional)

### Expansion

Expansion Port	1*Mini PCIe,with SIM slot , support 4G LTE/Wifi/BT, 1*PCIe X16,1*PCIe X4 (X1 signal) ,2*PCI, or 2*PCIe X16 (X8 signal) +1*PCIe X8 (X4 signal) I-port:1*LPT/USB2.0/16-bit DIO/1*Mini PCIe
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### Power Supply

Input voltage	DC 12~24V input,
Power consumption	68.78W (I7-6700T , 4GB DDR4, 1TB HDD)

### Mechanical

Structure	Aluminum Chassis, SGCC frame
Color	Silver gray
Installation	Desktop mounting, wall mounting
Dimension(W*H*D)	220*250*172mm
Net Weight	5.58KG

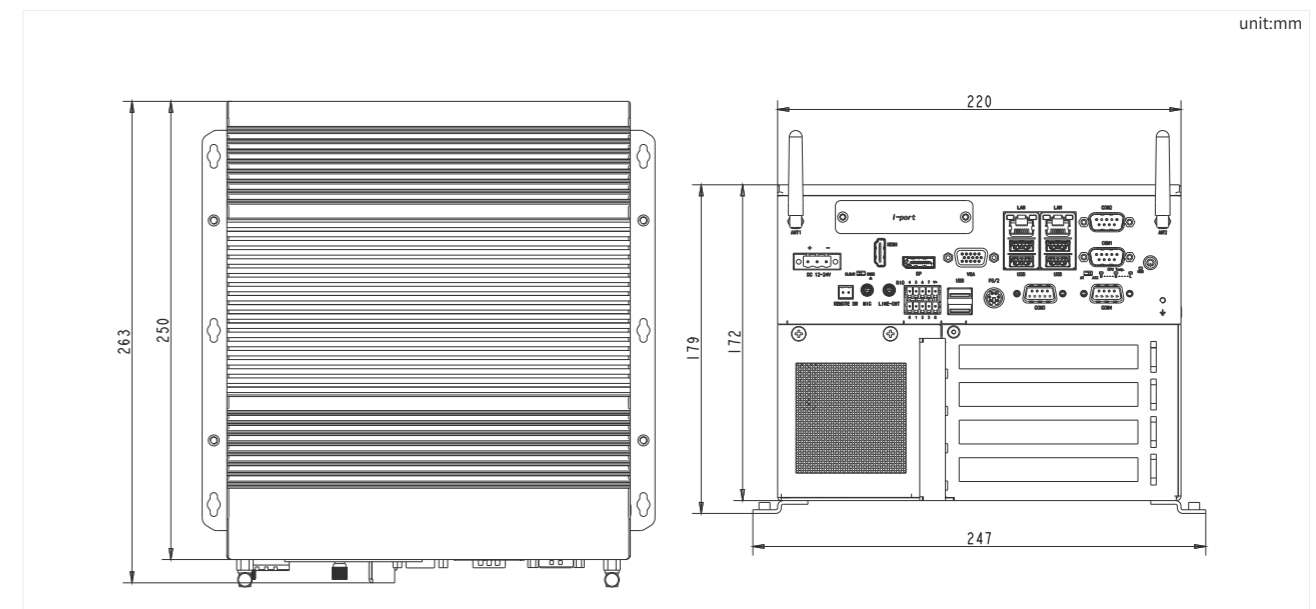
### Environment

Operating Temp	-20°C~65°C – Fanless design, wide-temperature SSD, -10°C~55°C – Fanless design, normal temperature HDD;
Storage Temp	-40°C~85°C
Storage Humidity	10~90%@40°C, No condensation
Vibration	5 grms/5~500Hz/random/during operation (SSD) 1 grms/5~500Hz/random/during operation (HDD)
Shock	50g peak acceleration(duration 11ms) with SSD; 20g peak acceleration(duration 11ms) with HDD
Certificate/EMC	CE/FCC Class B

### OS

OS	Windows 7, Windows 10, Linux Fedora,Ubuntu
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## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-3921/S001	Intel® Skylake-S/Kabylake-S LGA1151 CPU,H110 Chipset	2*DDR4, 2*LAN, 4*USB3.0,3*USB2.0, 4*COM, 1*Mini PCIe, 1*HDMI,1*DP,1*VGA, 1*Line out,1*Mic, 8-bit DIO,1*PS/2, 1*I-port, 2*2.5" SATA3 bay, 1*M.2, 1*mSATA, DC 12~24V
KMDA-3921/S002	Intel® Skylake-S/Kabylake-S LGA1151 CPU, Q170 Chipset	
ECB-242	Expansion backplane (choose 1)	1*PCIe X16, PCIe X4(X1 signal), 2*PCI
ECX-249		2*PCIe X16(X8 signal),1*PCI X8 (X4 signal)
PA-120DC19		AC/DC adapter, DC 19V/6.32A 120W
PA-220DC24		AC/DC adapter, DC 24V/9.17A 220W
AC-140		8-channel optical isolation input\8-channel high-power relay board

# KMDA-5610

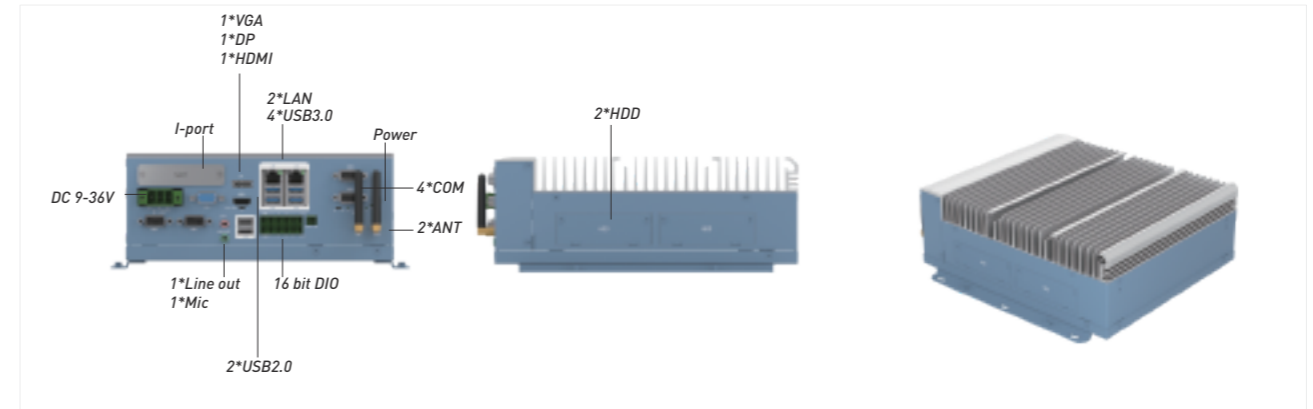
Intel® 9th/8th-Gen Coffee Lake LGA1151 CPU, 2\*LAN, 4\*USB3.1, 1\*VGA, 1\*DP, 1\*HDMI, 2\*4K Displays, 1\*Msata, 2\*SATA3.0, DC 9-36V

## Key Specification

- Intel® 9th/8th-Gen Coffee Lake LGA1151 CPU
- Intel® H310 chipset
- 2\*DDR4 2400/2666MHz SODIMM RAM, Max.64GB
- 1\*DP, 1\*HDMI,1\*VGA, 2+1 display
- 2\*LAN, 4\*USB3.1, 2\*USB2.0, 4\*COM, 16-bit Iso.DIO
- 1\*M.2 E-key 2230, Support 10/100/1000Mbps WIFI module
- 2\*SATA3.0,1\*mSATA with SIM card slot
- Wide voltage power supply 9-36V, with short circuit, overvoltage and overcurrent protection



## I/O View



## Product Overview

KMDA-5610 is a fanless high-performance box PC, equipped with Intel® 8th/9th generation Coffee lake series processors, H310 chipset, 2\*DDR4 2400/2666MHz, and Max. support upto 64GB. Industrial grade product design. It is very suitable for industrial automation, AI edge computing, small smart workstations, multimedia service systems, high-precision machine vision and other applications.

## Product Parameters

### Processor

CPU	Intel® Coffee lake 9th/8th-Gen Corei7/i5/i3/Pentium/Celeron LGA1151 processor, H310 chipset
RAM	2*260-Pin ,DDR4,2400/2666MHz, Max. 64GB
Graphics	Intel UHD Graphics, Supports DirectX11.1, OpenGL 5.0 and OpenCL 2.1 or PCIe X16,DP:4096*2304@60Hz, VGA:1900*1200@60Hz, HDMI:4096*2160@24Hz (Support 2 independent display, 1 mirror display)
LAN	1*Intel I210AT PCIe ,10/100/1000Mbps ; 1*Intel I219 LM
USB	4* USB3.1, 2*USB2.0 , 1*USB2.0 (build-in)
Display	1*DP+1*HDMI+1*VGA
Audio	1*Line out+1*Mic, optional audio
Serial port /Others	2*RS232/422/485, 2*RS232, 16-bit iso DIO
DIO	8-bit 2.5KV Iso. DI(High:5-24V,Low:0-1.5V) and 8-bit 2.5KV Iso. DO (200mA)

### Storage

Storage	2*2.5" SATA3,HDD,1*full length mSATA, with SIM slot,support 4G
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### Others

Indicator light	1*power indicator, 1*hard disk indicator, 3*CPU temperature indicator
Control switch	1*Power SW,1*Remote switch,1*AT/ATX SW, 1*Clear CMOS SW
Watchdog timer	watchdog timeout programmable via software 1 to 255 second
TCPPM/TPM	support TPM2.0 (optional)

### Expansion

Expansion Port	1*M.2 E-Key 2230, Support 10/100/1000Mbps WFI module I-port:optional USB2.0/ 16-bitDIO/serial ports/others
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### Power Supply

Input voltage	DC IN 9-36V 3-pin Term. 7.62mm,with short circuit protection, over voltage and over current protection,
Power consumption	96W(i7-8700,32G DDR4,128G SSD)

### Mechanical

Structure	Aluminum Chassis, SGCC frame
Color	Silver white & Aquamarine
Installation	Desktop mounting
Dimension(W*H*D)	230*267.3*92mm
Net Weight	5.1KG

### Environment

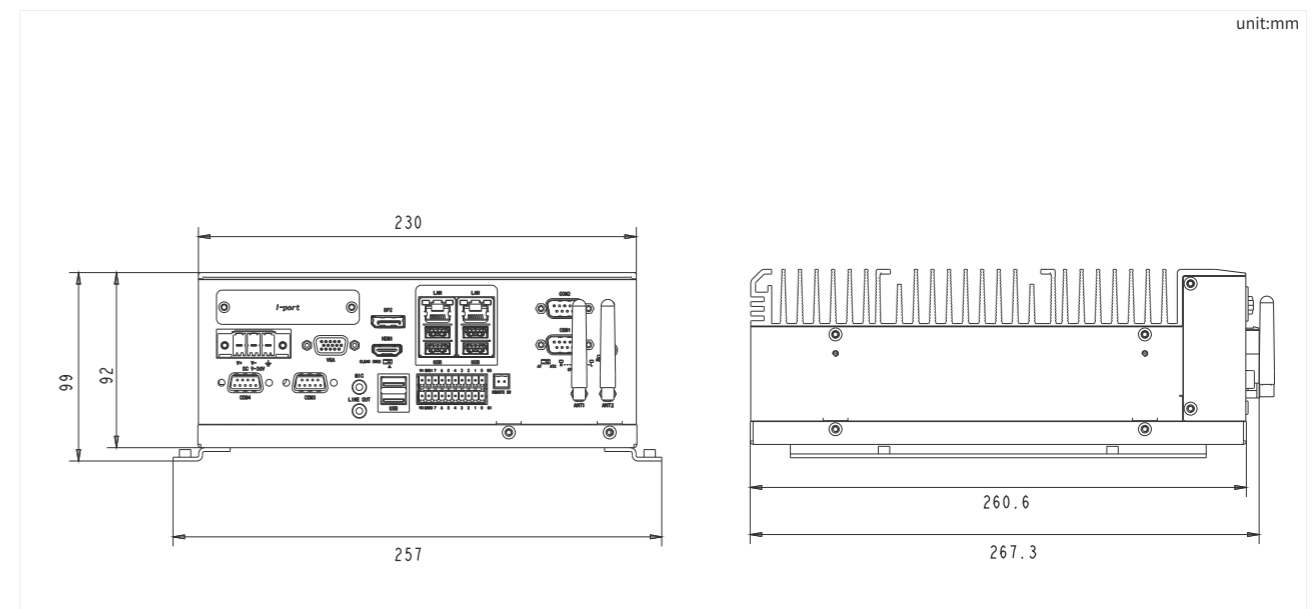
Operating Temp	-20°C~60°C – Fanless design, wide-temperature SSD, -10°C~55°C – Fanless design, normal temperature HDD;
Storage Temp	-40°C~85°C
Storage Humidity	10~90%@40°C, No condensation
Vibration	5 grms/5~500Hz/random/during operation (SSD) 1 grms/5~500Hz/random/during operation (HDD)
Shock	50g peak acceleration(duration 11ms) with SSD; 20g peak acceleration(duration 11ms) with HDD

Certificate/EMC	CE/FCC Class B
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### OS

OS	Windows 10 Enterprise & IOT Enterprise,Ubuntu,SuSe,Redhat Enterprise 1,2 (Kernel 4.14) ,Wind River VxWorks 7
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## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-5610/S001	Intel® C 9th/8th Coffeelake LGA1151 CPU, H310 PCH	2*DDR4, 2*LAN, 4*USB3.1, 2*USB2.0, 4*COM, M.2 E-Key, 1*VGA, 1*DP,1*HDMI, 1*Line out,1*Mic, 16-bit iso DIO, 2*2.5" SATA, 1*mSATA with SIM slot DC 9-36V
PA-120DC19		AC/DC power adapter,DC19V/6.32A,120W

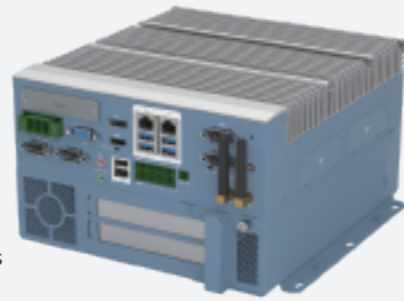


# KMDA-5920/S001

Intel® 9th/8th-Gen Coffee Lake LGA1151 series CPU ,2\*LAN, 4\*USB3.1, 2\*SATA3.0, 1\*PCIe X16, 1\*PCIeX4, Wide voltage power supply DC 9-36V

## Key Specification

- Intel® 9th/8th-Gen Coffee Lake LGA1151 CPU
- Intel® H310 chipset
- 2\*DDR4 2400/2666MHz SODIMM RAM, Max.64GB
- Support 1\*DP,1\*HDMI,1\*VGA, 2+1 display
- 2\*LAN,4\*USB3.1, 2\*USB2.0, 4\*COM, 16-bit Iso.DIO
- 1\*M.2 E-key 2230, Support 10/100/1000Mbps WIFI module
- 1\*PCIe X16, 1\*PCIeX4, Support a variety of high-speed expansion function cards
- 2\*easy-swappable SATA 3.0 bay, 1\*full size mSATA, with SIM card slot
- Wide voltage power supply DC 9-36V, with short circuit, over voltage and over current protection



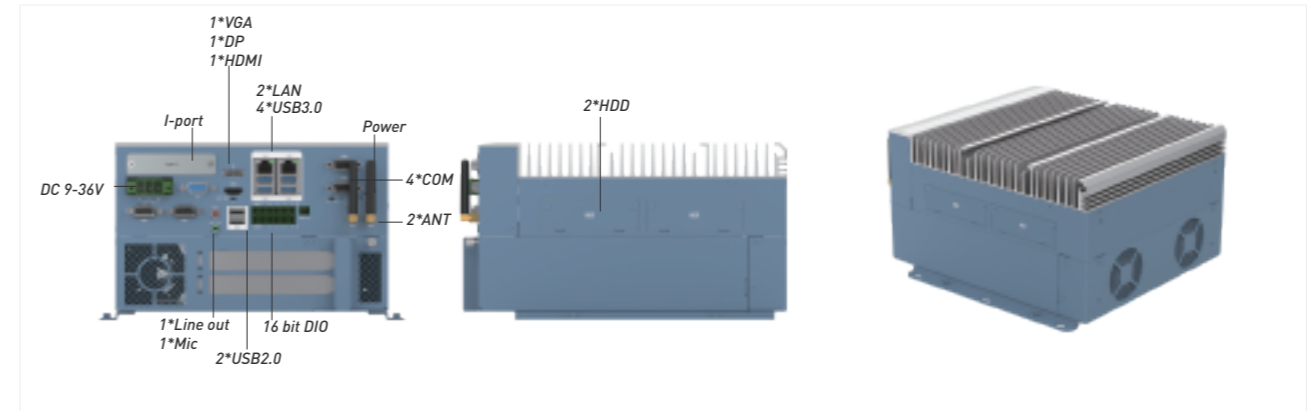
## Product Overview

KMDA-5920 is a fanless high-performance box PC, equipped with Intel® 8th/9th generation Coffee Lake series processors, H310 chipset, 2\*DDR4 2400/2666MHz, and Max. support upto 64GB. Rich expansion flexibility, industrial grade product design. It is very suitable for industrial automation, AI edge computing, small intelligent workstations, multimedia service systems, high-precision machine vision and other applications.

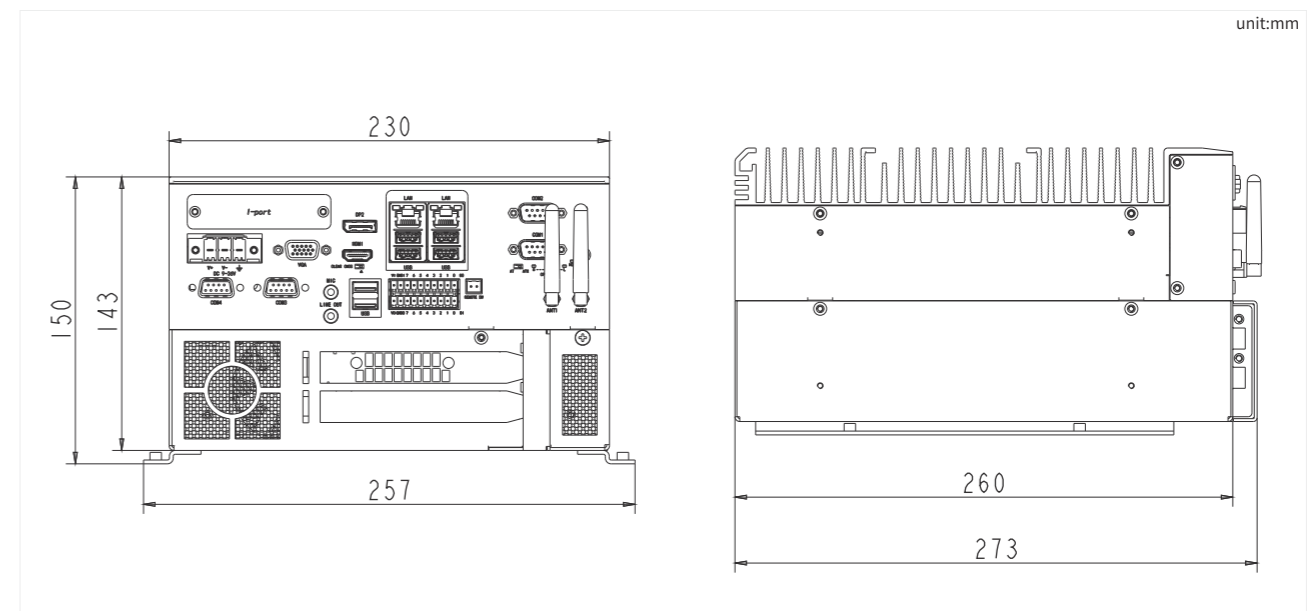
## Product Parameters

<b>Processor</b>	Intel® Coffee lake 9th/8th-Gen Corei7/i5/i3/Pentium/Celeron LGA1151 processor, H310 chipset	<b>Expansion</b>	1*M.2 E-Key 2230, Support 10/100/1000Mbps WFI module, Expansion Port 1*PCIe X16, 1*PCIe X4, I-port: optional USB2.0/ 16-bitDIO/serial ports/others
<b>CPU</b>		<b>Power Supply</b>	Input voltage DC IN 9-36V 3-pin Term. 7.62mm,With short circuit, OVP & OCP Power consumption 60.48W (I7-8700T CPU/16G DDR4/128G SSD)
<b>RAM</b>	2*260-Pin ,DDR4,2400/2666MHz, Max. 64GB	<b>Mechanical</b>	Structure Aluminum Chassis, SGCC frame Color Silver white & Aquamarine Installation Desktop mounting Dimension(W*H*D) 230*273*143mm Net Weight 5.9KG
<b>Graphics</b>	Intel UHD Graphics, Supports DirectX11.1, OpenGL 5.0 and OpenCL 2.1 or PCIe X16,DP:4096*2304@60Hz, VGA:1900*1200@60Hz, HDMI:4096*2160@24Hz (Support 2 independent display, 1 mirror display)	<b>Environment</b>	Operating Temp -20°C~60°C – Fanless design, wide-temperature SSD, -10°C~55°C – Fanless design, normal temperature HDD Storage Temp -40°C~85°C Storage Humidity 10~90%@40°C, No condensation
<b>LAN</b>	1*Intel I210AT PCIe ,10/100/1000Mbps ; 1*Intel I219 LM	<b>Vibration</b>	5 grms/5~500Hz/random/during operation (SSD) 1 grms/5~500Hz/random/during operation (HDD)
<b>USB</b>	4* USB3.1, 2*USB2.0,1*USB2.0 (build-in)	<b>Shock</b>	50g peak acceleration(duration 11ms) with SSD; 20g peak acceleration(duration 11ms) with HDD
<b>Display</b>	1*DP+1*HDMI+1*VGA	<b>Certificate/EMC</b>	CE/FCC Class B
<b>Audio</b>	1*Line out+1*Mic,optional audio	<b>OS</b>	OS Windows 10 Enterprise & IOT Enterprise, Ubuntu,SuSe,Redhat Enterprise 1,2 (Kernel 4.14) Wind River VxWorks 7
<b>Serial port /Others</b>	2*RS232/422/485, 2*RS232, 16-bit iso DIO		
<b>DIO</b>	8-bit 2.5KV Iso. DI(High:5-24V,Low:0-1.5V) and 8-bit 2.5KV Iso. DO (200mA)		
<b>Storage</b>	2*2.5" SATA3,HDD,1*mSATA, with SIM slot,support 4G		
<b>Others</b>	Indicator light 1*power indicator, 1*hard disk indicator, 3*CPU temperature indicator Control switch 1*Power SW,1*Remote switch,1*AT/ATX SW, 1*Clear CMOS SW Watchdog timer Watchdog timeout programmable via software 1 to 255 second timer		

## I/O View



## Dimensions



## Ordering Information

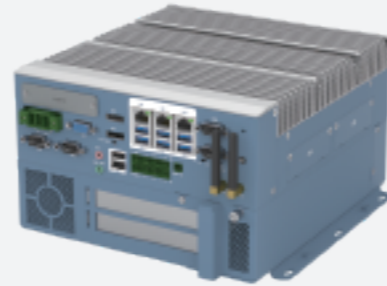
Model	Processor	Specifications
KMDA-5920/S001	Intel® 9th/8th Coffeelake LGA1151 CPU, H310	2*LAN, 4*USB3.1, 2*USB2.0,4*COM, 1*M.2 E-Key, 1*VGA, 1*DP, 1*HDMI, 1*Line out,1*Mic, 16-bit iso DIO, 2*2.5" SATA, 1*mSATA, DC 9-36V
ECB-255		1*PCIeX16,1*PCIeX4
PA-120DC19		AC/DC adapter, DC19V/6.32A 120W
PA-220DC24		AC/DC adapter,DC 24V/9.17A 220W
PA-300DC24		AC/DC power adapter,DC24V@12.5A ,300W
AC-140		8-channel isolated input and 8-channel power relay output terminal board,DC 12V power supply,source signal: 16-bit TTL GPIO

# KMDA-5920/S002

Intel® 9th/8th-Gen Coffee Lake LGA1151 CPU, 3\*LAN, 6\*USB3.1, 1\*VGA, 2\*DP, 2\*SATA3.0, 1\*PCIe X16, 1\*PCIeX4, DC9-36V

## Key Specification

- Intel® 9th/8th-Gen Coffee Lake LGA1151 CPU
- Intel® Q370 chipset
- 4\*DDR4 RAM, Dual-channel memory, Max. support 128GB
- Support 2\*DP+1\*VGA, 3 independent displays
- 6\*USB3.1, 2\*USB2.0, 4\*COM, 16-bit Iso.DIO
- 1\* M.2 3052 B-Key. With SIM card slot, support 5G module,
- 1\*M.2 E-key 2230, Support 10/100/1000Mbps WIFI module
- 2\*SATA3.0 Support RAID0.1, 1\*M.2 2280 M-Key,Support NVME storage
- 1\*PCIe X16, 1\*PCIeX4 expansion, support multiple high-speed expansion interface modules
- DC 9-36V Wide voltage power supply, with short circuit, over voltage and over current protection



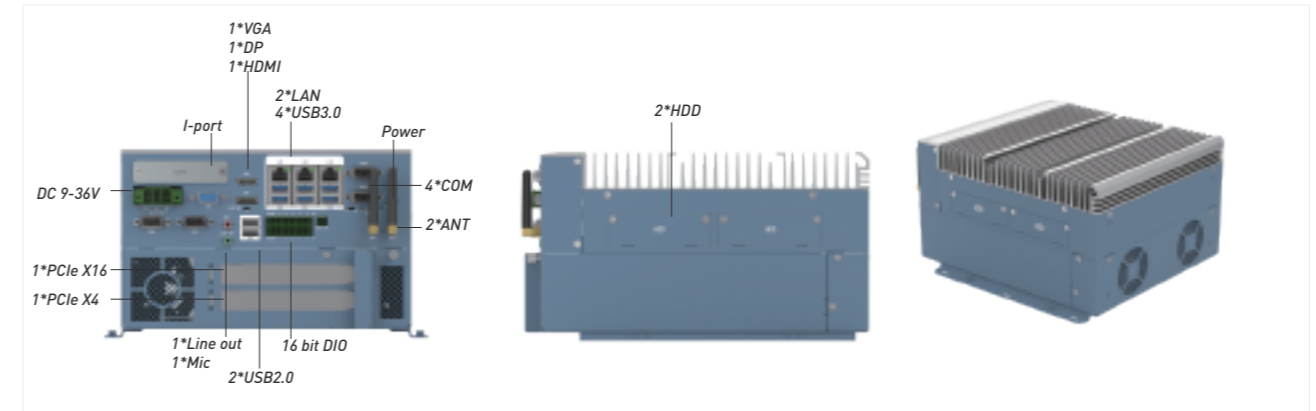
## Product Overview

KMDA-5920 is a fanless high-performance box PC, equipped with Intel® 8th/9th generation Coffee Lake series processors, Q370 chipset, 4\*DDR4 2400/2666MHz, dual-channel memory, Max. support upto 128GB. It is very suitable for industrial automation, AI edge computing, small smart workstations, multimedia service systems, high-precision machine vision and other applications.

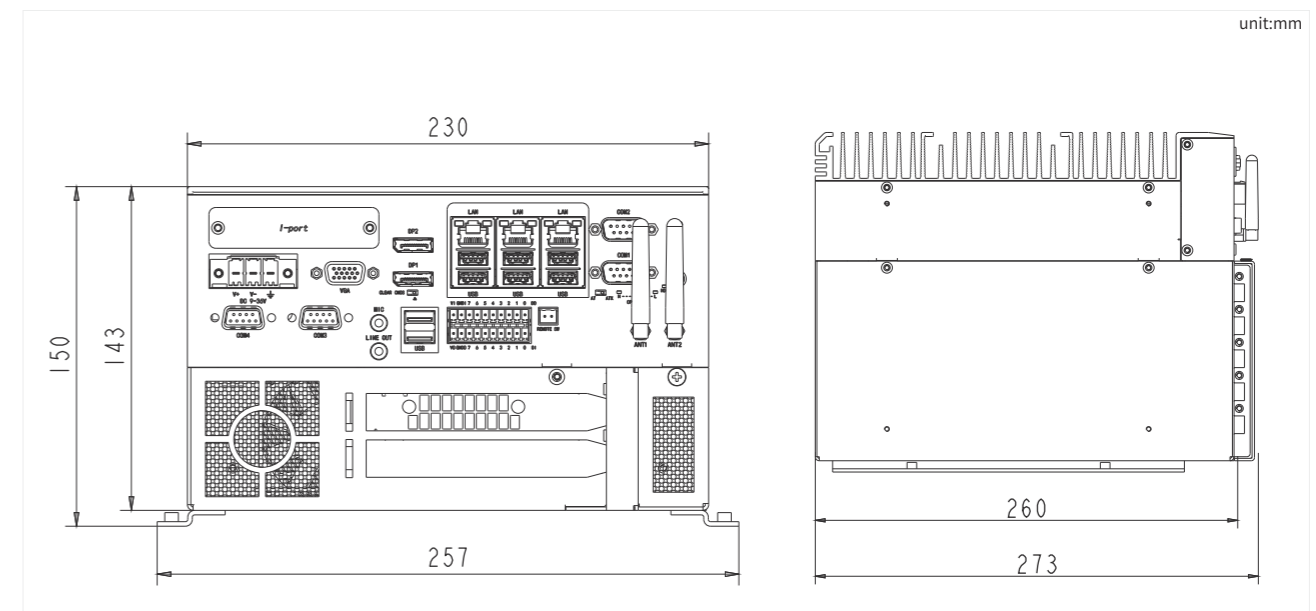
## Product Parameters

<b>Processor</b>	Intel® Coffee lake 9th/8th-Gen Corei7/i5/i3/Pentium/Celeron	<b>Expansion</b>	1*M.2 B-Key, with SIM slot,support 5G,1*M.2 E-Key, 1*PCIe X16,1*PCIe X4, 1*Mini PCIe,with SIM slot,support 4G/WIFI/BT
CPU	LGA1151 processor, Q370 chipset	Expansion Port	l-port: optional USB2.0/ 16-bitDIO/serial ports/others
RAM	4*260-Pin ,DDR4,2400/2666MHz, Max. 128GB	<b>Power Supply</b>	DC IN 9-36V 3-pin Term. 7.62mm,with short circuit protection, over voltage and over current protection,
Graphics	Intel UHD Graphics, Supports DirectX11.1, OpenGL 5.0 and OpenCL 2.1 or PCIe X16,DP: 4096*2304@60Hz, VGA1900*1200@60Hz,support 3 independent displays	Input voltage	60.48W (I7-8700T CPU/16G DDR4/128G SSD)
LAN	2*Intel I210AT PCIe ,10/100/1000Mbps ; 1*Intel I219 LM,support iVpro	<b>Mechanical</b>	
USB	6* USB3.1, 2* USB2.0,2*USB2.0 (build-in)	Structure	Aluminum Chassis, SGCC frame
Display	2*DP+1*VGA	Color	Silver white & Aquamarine
Audio	1*Line out+1*Mic, optional audio	Installation	Desktop mounting
Serial port /Others	2*RS232/422/485, 2*RS232, 16-bit iso DIO	Dimension(W*H*D)	230*273*143mm
DIO	8-bit 2.5KV Iso. DI(High:5-24V,Low:0-1.5V) and 8-bit 2.5KV Iso. DO (200mA)	Net Weight	5.9KG
<b>Storage</b>		<b>Environment</b>	
Storage	2*2.5" SATA3, supportRAID0,1, 1*M.2 M-Key,PCIex4 Gen3.0, support NVME storage	Operating Temp	-20°C~60°C – Fanless design, wide-temperature SSD, -10°C~55°C – Fanless design, normal temperature HDD;
<b>Others</b>		Storage Temp	-40°C~85°C
Indicator light	1*power indicator, 1*hard disk indicator, 3*CPU temperature indicator	Storage Humidity	10~90%@40°C, No condensation
Control switch	1*Power SW,1*Remote switch,1*AT/ATX SW, 1*Clear CMOS SW	Vibration	5 grms/5~500Hz/random/during operation (SSD) 1 grms/5~500Hz/random/during operation (HDD)
Watchdog timer	Watchdog timeout programmable via software 1 to 255 second	Shock	50g peak acceleration(duration 11ms) with SSD; 20g peak acceleration(duration 11ms) with HDD
		Certificate/EMC	CE/FCC Class B
		<b>OS</b>	
		OS	Windows 10 Enterprise & IOT Enterprise, Ubuntu,SuSe,Redhat Enterprise 1,2 (Kernel 4.14),Wind River VxWorks 7

## I/O View



## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-5920/S002	Intel® 9th/8th Coffeelake LGA1151 CPU, Q370	3*LAN, 6*USB3.1, 2*USB2.0,4*COM, 1*Mini PCIe, M.2 E-Key, 1*M.2 B-Key, 1*VGA, 2*DP, 1*Line out,1*Mic, 16-bit iso DIO,2*2.5" SATA, 1*M.2 2280 M-Key, DC 9-36V
ECB-255		1*PCIeX16,1*PCIeX4
PA-120DC19		AC/DC adapter, DC19V/6.32A 120W
PA-220DC24		AC/DC adapter,DC 24V/9.17A 220W
PA-300DC24		AC/DC power adapter,DC24V@12.5A ,300W
AC-140		8-channel isolated input and 8-channel power relay output terminal board,DC 12V power supply,source signal: 16-bit TTL GPIO

# KMDA-5921/S001

Intel® 9th/8th-Gen Coffee Lake LGA1151 CPU, 2\*LAN, 4\*USB3.1, 2\* easy-swappable SATA3, 1\*PCIe X16, 1\*PCIe X4, 3\*32-bit PCI, DC9-36V

## Key Specification

- Intel® 9th/8th-Gen Coffee Lake LGA1151 CPU
- Intel® H310 chipset
- 2\*DDR4 2400/2666MHz SODIMM RAM, Max. 64GB
- 1\*DP, 1\*HDMI, 1\*VGA, 2 independent displays
- 2\*LAN, 4\*USB3.1, 2\*USB2.0, 4\*COM, 16-bit Iso.DIO
- 1\*M.2 E-key 2230, Support 10/100/1000Mbps WIFI module
- 1\*PCIe X16, 1\*PCIe X4, 2\*32-bit PCI;
- 2\*easy-swappable SATA 3.0 bay, 1\*full size mSATA, with SIM card slot
- Optional support TPM2.0 security encryption, support iAMT12.0, Intel vPro technology
- DC9-36V wide voltage power supply



## Product Overview

KMDA-5921 is a fanless high-performance box PC, equipped with the 8th/9th generation Coffee Lake LGA1151 series processors, H310 chipset. It supports multiple PCIe expansions and is flexible to meet application requirements. With rich expansion flexibility and industrial-grade product design, it is suitable for industry Automation, AI edge computing, multimedia service system, high-precision machine vision, video security and other applications.

## Product Parameters

### Processor

CPU	Intel® Coffee lake 9th/8th-Gen Core i7/i5/i3/Pentium/Celeron LGA1151 processor, H310 chipset
RAM	2*260-Pin, DDR4, 2400/2666MHz, Max. 64GB
Graphics	Intel UHD Graphics, Supports DirectX 11.1, OpenGL 5.0 and OpenCL 2.1 or PCIe X16, DP: 4096*2304@60Hz, VGA: 1900*1200@60Hz, HDMI: 4096*2160@24Hz (Support 2 independent display, 1 mirror display)
LAN	1*Intel I210AT PCIe, 10/100/1000Mbps; 1*Intel I219 LM
USB	4* USB3.1, 2*USB2.0
Display	1*DP+1*HDMI+1*VGA
Audio	1*Line out+1*Mic, optional audio
Serial port /Others	2*RS232/422/485, 2*RS232, 16-bit iso DIO
DIO	8-bit 2.5KV Iso. DI (High: 5-24V, Low: 0-1.5V) and 8-bit 2.5KV Iso. DO (200mA)

### Storage

Storage	2*2.5" SATA3, HDD, 1*mSATA, with SIM slot, support 4G
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### Others

Indicator light	1*power indicator, 1*hard disk indicator, 3*CPU temperature indicator
Control switch	1*Power SW, 1*Remote switch, 1*AT/ATX SW, 1*Clear CMOS SW
Watchdog timer	Watchdog timeout programmable via software 1 to 255 second
TCPPM/TPM	support TPM2.0 (optional)

### Expansion

Expansion Port	1*M.2 E-Key 2230, Support 10/100/1000Mbps WFI module/BT5.0 1*PCIe X16, 1*PCIe X4 (PCIe X1 signal), 2*32-bit PCI, optional USB2.0/ 16-bitDIO/serial ports/others
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### Power Supply

Input voltage	DC IN 9-36V 3-pin Term. 7.62mm, with short circuit protection, over voltage and over current protection,
Power consumption	48.5W (I7-9700, 16G DDR4, 128G SSD)

### Mechanical

Structure	Aluminum Chassis, SGCC frame
Color	Silver white & Aquamarine
Installation	Desktop mounting
Dimension(W*H*D)	230*273*204mm
Net Weight	7.25KG

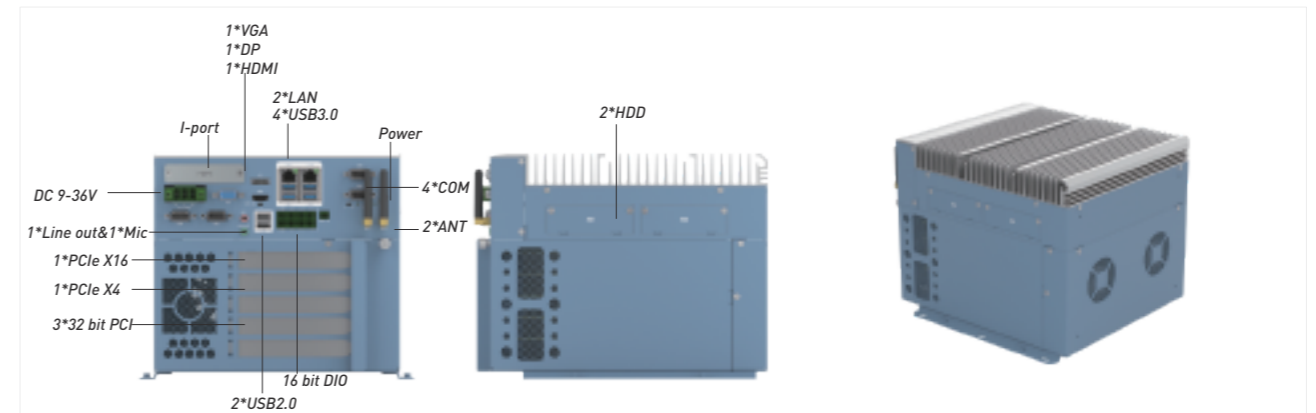
### Environment

Operating Temp	-20°C~60°C – Fanless design, wide-temperature SSD, -10°C~55°C – Fanless design, normal temperature HDD;
Storage Temp	-40°C~85°C
Storage Humidity	10~90%@40°C, No condensation
Vibration	5 grms/5~500Hz/random/during operation (SSD) 1 grms/5~500Hz/random/during operation (HDD)
Shock	50g peak acceleration(duration 11ms) with SSD; 20g peak acceleration(duration 11ms) with HDD
Certificate/EMC	CE/FCC Class B

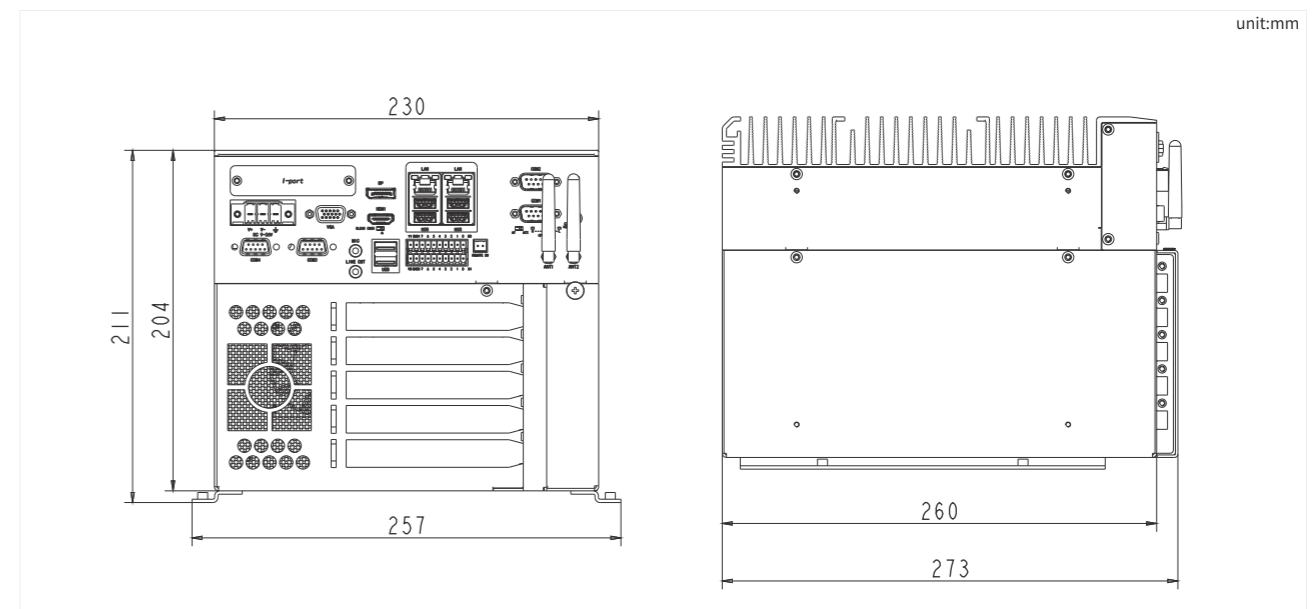
### OS

OS	Windows 10 Enterprise & IOT Enterprise, Ubuntu, SuSe, Redhat Enterprise 1.2 (Kernel 4.14), Wind River VxWorks 7
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## I/O View



## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-5921/S001	Coffee lake-R 9th/8th-Gen Core i7/i5/i3/Pentium/Celeron CPU, H310 PCH	2*LAN, 4*USB3.1, 2*USB2.0, 4*COM, 1*Mini PCIe, M.2 E-Key, 1*VGA, 1*DP, 1*HDMI, 1*Line out, 1*Mic, 16-bit iso DIO, 2*2.5" SATA, DC 9-36V
ECB-266		1*PCIe X16, 1*PCIe X4, 2*PCI
PA-120DC19		AC/DC adapter, DC19V/6.32A 120W
PA-220DC24		AC/DC adapter, DC 24V/9.17A 220W
PA-300DC24		AC/DC power adapter, DC24V@12.5A, 300W
AC-140		8-channel isolated input and 8-channel power relay output terminal board, DC 12V power supply, source signal: 16-bit TTL GPIO

# KMDA-5921/S002

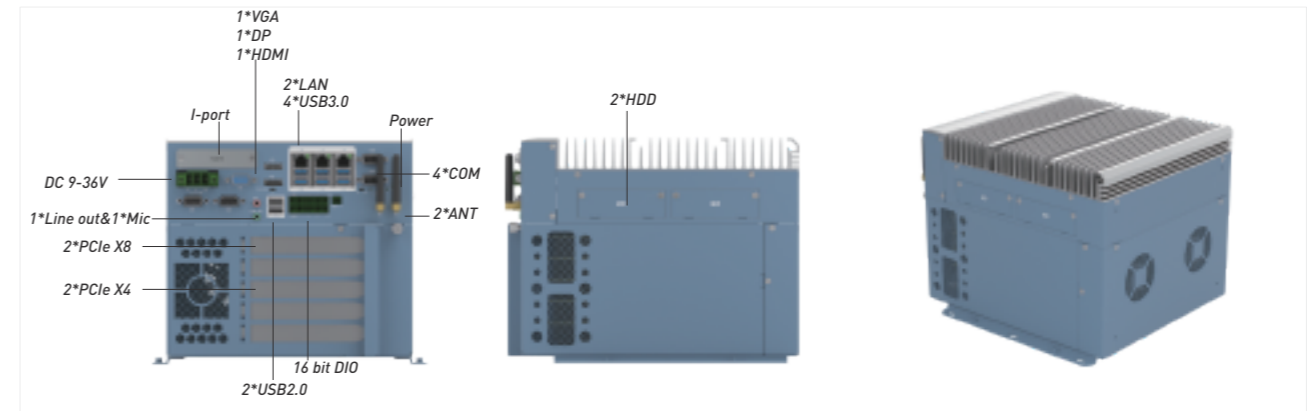
Intel®9th/8th-Gen Coffee Lake LGA1151 CPU, 3\*LAN, 6\*USB3.1, 2\*easy-swappable SATA3, 4\*PCIe slots, DC 9-36V

## Key Specification

- Intel® Coffee lake 9th/8th-Gen Corei7/i5/i3/Pentium/Celeron CPU
- Intel® Q370 chipset
- 4\*DDR4 2400/2666MHz SODIMM RAM, Max.128GB
- 3\*LAN, 6\*USB3.1, 2\*USB2.0, 4\*COM, 16-bit Iso.DIO
- 1\*M.2 B-Key supports 5G,1\*M.2 E-key, support 10/100/1000Mbps WIFI
- 1\*Mini PCIe. With SIM card slot, support 4G/Wifi/BT and other wireless functions
- 2\*PCIe X8, 2\*PCIe X4
- 2\*SATA3.0, support RAID0,1,1\*M.2 M-Key,support Nvme
- Optional support TPM2.0 security encryption, iAMT12.0, Intel vPro technology
- Wide voltage power supply 9-36V



## I/O View



## Product Overview

KMDA-5921 is a fanless high-performance box PC, equipped with the 8th/9th generation Coffee Lake LGA1151 series processors, Q370 chipset. Two easy-swappable 2.5" SATA3 bay, supporting RAID 0, 1. With full function, rich expansion flexibility and industrial-grade product design, it is suitable for industry Automation, AI edge computing, multimedia service system, high-precision machine vision, video security and other applications.

## Product Parameters

### Processor

CPU	Intel® Coffee lake 9th/8th-Gen Corei7/i5/i3/Pentium/Celeron LGA1151 processor, Q370 chipset
RAM	4*260-Pin ,DDR4,2400/2666MHz, Max. 128GB
Graphics	Intel UHD Graphics, Supports DirectX11.1, OpenGL 5.0 and OpenCL
LAN	2*Intel I210AT PCIe ,10/100/1000Mbps ; 1*Intel I219 LM, support Intel vPro technology
USB	6* USB3.1, 2*USB2.0
Display	2*DP+1*VGA
Audio	1*Line out+1*Mic, optional audio
Serial port /Others	2*RS232/422/485, 2*RS232, 16-bit iso DIO
DIO	8-bit 2.5KV Iso. DI(High:5-24V,Low:0-1.5V) and 8-bit 2.5KV Iso. DO (200mA)

### Storage

Storage	2*2.5" SATA3, support RAID0,1, 1*M.2 M-Key,PCIex4 Gen3.0, support NVME
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### Others

Indicator light	1*power indicator, 1*hard disk indicator, 3*CPU temperature indicator
Control switch	1*Power SW,1*Remote switch,1*AT/ATX SW, 1*Clear CMOS SW
Watchdog timer	Watchdog timeout programmable via software 1 to 255 second
TCPPM/TPM support	TPM2.0 (optional)

### Expansion

Expansion Port	1*M.2 B-Key,with SIM slot,support 5G,1*M.2 E-Key; 1*Mini PCIe,with SIM slot,support 4G/WIFI/BT; I-port: USB2.0/16-bit DIO/Mini PCIe/M.2 (optional) 2*PCIe X16 (X8 signal) ,2*PCIe X4,or 1*PCIe X16,1*PCIe X4,2*PCI
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### Power Supply

Input voltage	DC IN 9-36V 3-pin Term. 7.62mm,with short circuit protection, over voltage and over current protection
Power consumption	48.5W(17-9700,16G DDR4,128G SSD)

### Mechanical

Structure	Aluminum Chassis, SGCC frame
Color	Silver white & Aquamarine
Installation	Desktop mounting
Dimension(W*H*D)	230*273*204mm
Net Weight	7.25KG

### Environment

Operating Temp	-20°C~60°C – Fanless design, wide-temperature SSD, -10°C~55°C – Fanless design, normal temperature HDD;
Storage Temp	-40°C~85°C
Storage Humidity	10~90%@40°C, No condensation

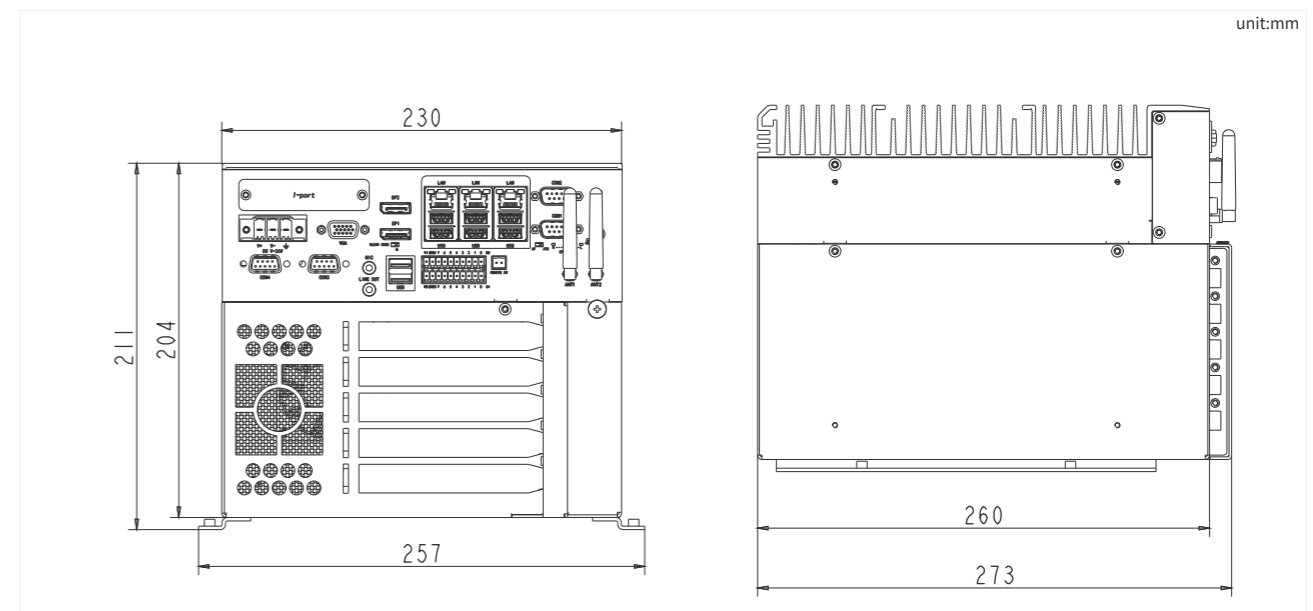
Vibration	5 grms/5~500Hz/random/during operation (SSD) 1 grms/5~500Hz/random/during operation (HDD)
Shock	50g peak acceleration(duration 11ms) with SSD; 20g peak acceleration(duration 11ms) with HDD

Certificate/EMC	CE/FCC Class B
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### OS

OS	Windows 10 Enterprise & IOT Enterprise, Ubuntu,SuSe,Redhat Enterprise 1,2 (Kernel 4.14), Wind River VxWorks 7
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## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-5921/S002	Coffee lake-R 9th/8th-Gen Core i7/i5/i3/Pentium/ Celeron CPU, Q370 PCH	3*LAN, 6*USB3.1, 2*USB2.0,4*COM, 1*Mini PCIe, 1*M.2 E-Key, 1*M.2 B-Key, 1*VGA, 2*DP, 1*Line out,1*Mic, 16-bit isoDIO,2*2.5" SATA, 1*M.2 2280 M-Key, DC 9-36V
ECB-254	Expansion backplane (choose one)	2*PCIe X16 (X8 signal) ,2*PCIe X4
ECB-266		1*PCIe X16, 1*PCIe X4,2*PCI
PA-120DC19		AC/DC adapter, DC19V/6.32A 120W
PA-220DC24		AC/DC adapter, DC24V/9.17A 220W
PA-300DC24		AC/DC power adapter,DC24V@12.5A ,300W
AC-140	8-channel isolated input and 8-channel power relay output terminal board,DC 12V power supply,source signal: 16-bit TTL GPIO	

# SCC-3116

Intel® Baytrail Celeron J1900 CPU, 2/3\*LAN, 7\*USB, 6\*COM, 1\*HDMI+1\*VGA dual display, optional 8-bit DIO, DC IN 9~36V

## Key Specification

- Aluminum Chassis, fanless heat dissipation design
- Intel® Baytrail Celeron J1900 2.0-2.42G CPU
- 1\*DDR3L 1333MHz SODIMM RAM, Max.8GB
- 1\*HDMI &1\*VGA, dual display
- 2/3\*Gig LAN, 1\*USB3.0, 6\*USB2.0(one build-in)
- 6\*COM, optional 8-bit DIO, 1\*Line out,1\*Mic
- 1\*Mini-PCIe(PCleX1+USB signal), 1\*PS/2
- 1\*mSATA, 1\*2.5' SATA bay, anti-vibration design, DC 9~36V wide voltage power supply



## Product Overview

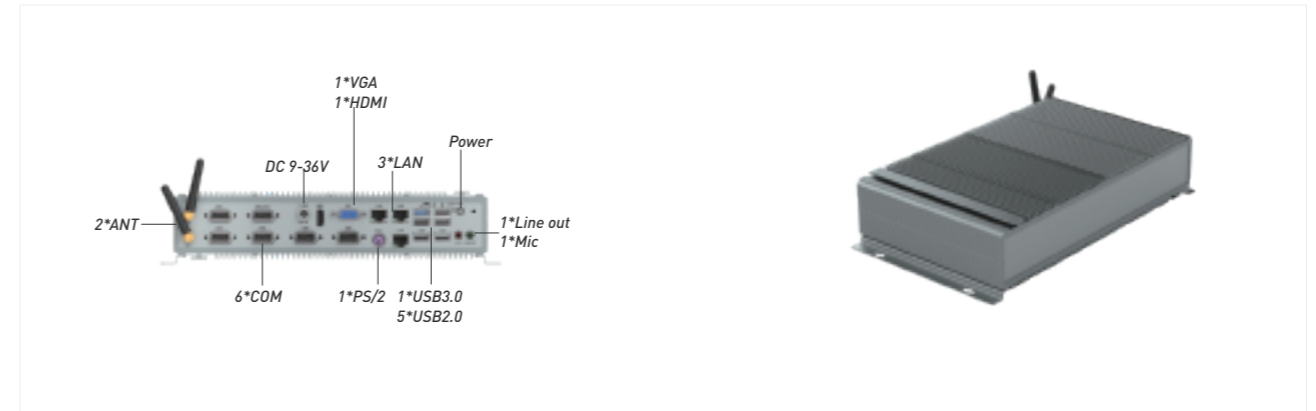
SCC-3116 is a multi-IO design industrial box PC with aluminum chassis and fanless design. Equipped with Intel Baytrail Celeron J1900 CPU, DDR3L 1333Mhz SODIMM, Max. support upto 8GB. It is economical and high reliability, suitable for equipment automation, IoT signal acquisition and other applications.

## Product Parameters

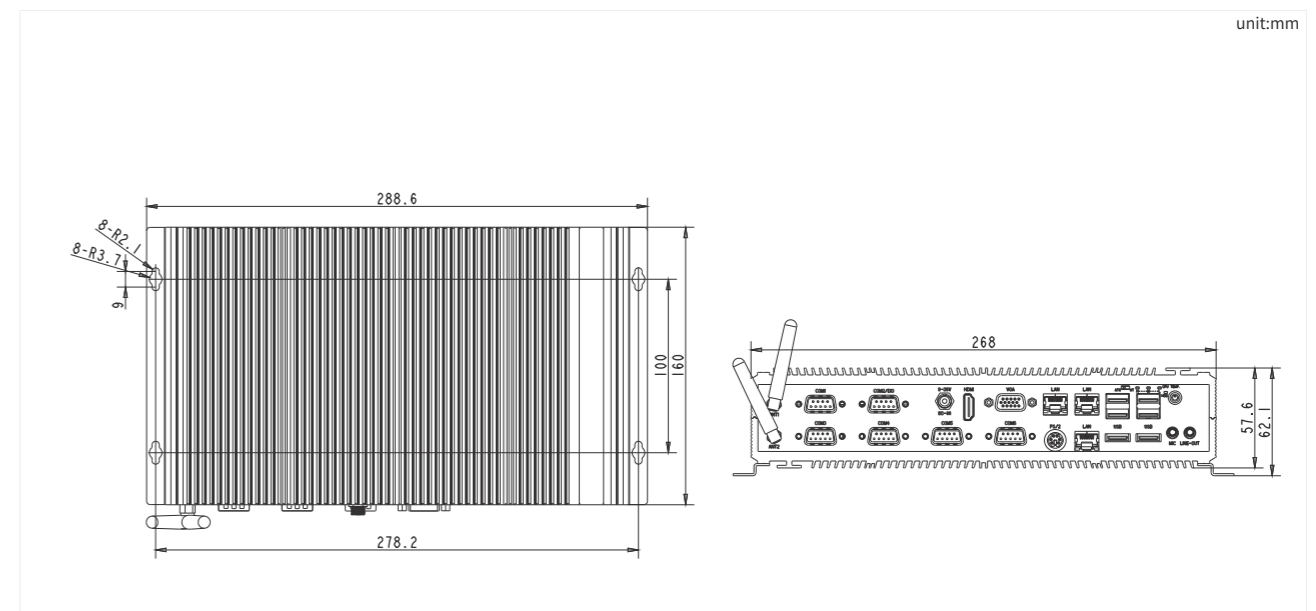
<b>Processor</b>	Intel® Baytrail-D Celeron J1900 , Main frequency 2.0~2.42GHz, quad-core, four-thread, 2M cache, 22nm, TDP 10W
<b>CPU</b>	
<b>RAM</b>	1*DDR3L, 1333MHz SODIMM, Max. 8GB
<b>Graphics</b>	Intel HD Graphics, VGA : 1920*1200@60Hz, HDMI:1920*1080@60Hz, support 2 independent displays support OpenGL 3.2, DirectX 11, OpenCL 1.2, MPGE2/H.264
<b>LAN</b>	3*Intel I211AT PCIe Gig. Ethernet, 10/100/1000Mbps
<b>USB</b>	1* USB3.0, 6*USB2.0 , 1*USB2.0 (build-in)
<b>Display</b>	1*HDMI+1*VGA
<b>Audio</b>	1*Line out+1*Mic,optional audio
<b>Serial port /Others</b>	4*RS232/422/485, 2*RS232, 1*PS/2 (Mouse and keyboard)
<b>DIO</b>	8-bit DIO, programmable input and output (DB9)
<b>Storage</b>	
<b>Storage</b>	1*2.5" SATA2,HDD/SSD;1*mSATA full-height card,Support AHCI mode
<b>Others</b>	
<b>Indicator light</b>	1*power indicator, 1*hard disk indicator, 3*CPU temperature indicator
<b>Control switch</b>	1*Power SW,1*Remote switch,1*AT/ATX SW, 1*Clear CMOS SW
<b>Watchdog timer</b>	Watchdog timeout programmable via software 1 to 255 second
<b>OS</b>	
<b>OS</b>	Windows 7, Windows 8.1, Windows 10, Linux Fedora Ubuntu

<b>Expansion</b>	Expansion Port 1*Mini PCIe, with SIM slot , support 4G LTE/Wifi/BT,
<b>Power Supply</b>	Input voltage DC IN 9-36V D-Jack/M8,with short circuit protection, over voltage and over current protection, Power consumption 14.4W(2.5" HDD)
<b>Mechanical</b>	Structure Aluminum Chassis, SGCC frame Color Silver gray Installation Desktop mounting Dimension(W*H*D) 268*160*57.6mm Net Weight 2.15KG
<b>Environment</b>	Operating Temp -20°C~65°C – Fanless design, wide-temperature SSD, -10°C~55°C – Fanless design, normal temperature HDD; Storage Temp -40°C~85°C Storage Humidity 10~90%@40°C, No condensation Vibration 5 grms/5~500Hz/random/during operation (SSD) 1 grms/5~500Hz/random/during operation (HDD) Shock 50g peak acceleration(duration 11ms) with SSD; 20g peak acceleration(duration 11ms) with HDD Certificate/EMC CE/FCC Class A

## I/O View



## Dimensions



## Ordering Information

Model	Processor	Specifications
SCC-3116/T002	Intel® J1900 CPU	3*LAN, 1*USB3.0, 6*USB2.0, 6*COM, optional 8-bit DIO, 1*Mini PCIe, 1*HDMI,1*VGA, 1*PS/2, 1*Line out, 1*Mic, 1*2.5"SATA2 bay, 1*mSATA, DC 9~36V
PA-60DC12		AC/DC adapter, DC19V/6.32A 120W

# PADA-M101

Intel® Whiskey lake U CPU,2-CH DDR4,1\*HDMI,1\*DP,2\*LAN,4\*USB3.0,3/4\*COM,1\*M.2 E-key,1\*F-Mini PCIe,DC 12V

## Key Specification

- SGCC cabinet design, 4-wire variable speed cooling fan, silent
- Intel® Core i3/i5/i7/Celeron CPU
- 2-Ch DDR4 2400MHz SODIMM, Max. 32GB
- 1\*HDMI,1\*DP,Support dual 4K display
- 1\*Line out,1\*Mic,4\*USB3.0
- 2\* GbE LAN,3/4\*COM ,8-bit DIO
- 1\*M.2,2230 E-Key, 1\*Mini-PCIe with SIM card slot, optional mSATA
- 1\*2.5" SATA bay for storage
- DC 12V,Optional 9~36V wide voltage power supply



## Product Overview

PADR-M101 is an embedded box PC newly launched by JHCTECH. It adopts SGCC box structure design and built-in 4-wire temperature controlled cooling fan for silent heat dissipation. Equipped with Intel Whiskey lake U series processor, optional DC 9~36V wide voltage. It is compact in size, which is suitable for manufacturing, mobile portable terminal, advertising player, AGV, medical analysis equipment and other small size, low-cost industries.

## Product Parameters

### Processor

CPU	Intel® Core i3/i5/i7/Celeron U
RAM	2*DDR4, 2400MHz, Max. 32GB
Graphics	Intel® Gen. 9 UHD Graphics,support 2 independent displays HDMI: 4096*2304@24Hz, DP: 4096*2304@60Hz
LAN	2*Intel I210AT PCIe Gig. Ethernet, 10/100/1000Mbps
USB	4*USB3.0
Display	1*DP+1*HDMI
Audio	1*Line out+1*Mic, optional audio
Serial port /Others	2*RS232/422/485, 1*RS232,
DIO	1*8-bit DIO (DB9), support RS232 (optional)

### Storage

Storage	1*2.5" SATA,support Max. 15mm hard disk
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### Others

Indicator light	1*power indicator, 1*hard disk indicator, 3*CPU temperature indicator (Red is alarm, Yellow is high temperature, Green is normal temperature)
Control switch	1*Power switch (front panel), 1*2pin terminal switch signal (rear panel), 1*AT/ATX selector switch (front panel)
Watchdog timer	Watchdog timeout programmable via software 1 to 255 second

### OS

OS	Windows 10, SUSE, Ubuntu, Wind River, Red Hat Enterprise
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### Expansion

Expansion Port	1*Mini PCIe, with SIM slot , support4G LTE/Wifi/BT,can change to mSATA via BIOS, 1*M.2 E-Key,Wifi/BT module expansion
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### Power Supply

Input voltage	DC 12V, 3-pin terminal interface, optional 9~36V Wide voltage power supply,
Power consumption	27.87W (I7-8565U, 16GB DDR , 1*4T SSD)

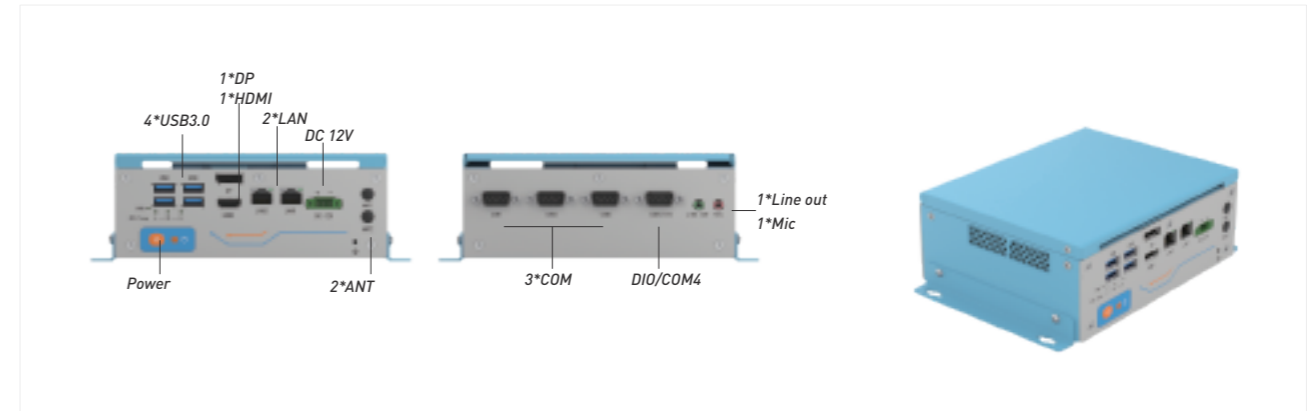
### Mechanical

Structure	SGCC
Color	Dark grey + pastel blue
Installation	Desktop mounting
Dimension(W*H*D)	200*140*67.5mm
Net Weight	1.51KG

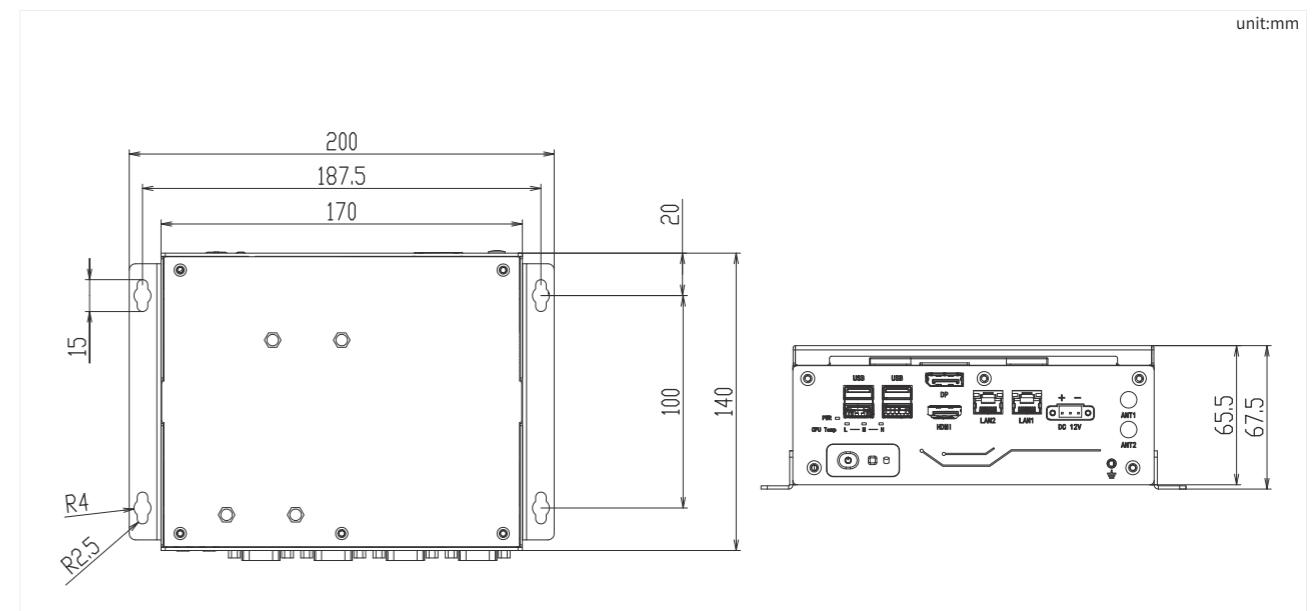
### Environment

Operating Temp	-20°C~70°C – Fanless design, , wide-temperature SSD,
Storage Temp	-40°C~85°C
Storage Humidity	10~90%@40°C, No condensation
Vibration	5 grms/5~500Hz/random/during operation (SSD) 1 grms/5~500Hz/random/during operation (HDD)
Shock	50g peak acceleration(duration 11ms) with SSD; 20g peak acceleration(duration 11ms) with HDD
Certificate/EMC	CE/FCC Class B

## I/O View



## Dimensions



## Ordering Information

Model	Processor	Specifications
PADR-M101/S001	Intel® Core I3-8145U	DDR4 2*SO-DIMM,1*HDMI,1*DP,1*Line out,1*Mic, 2*LAN,4*USB3.0,3/4*COM,8-bit DIO,1*M.2,1*Mini PCIe/mSATA, 1*2.5"SATA,DC 12V
PADR-M101/S002	Intel® Core I5-8265U	
PADR-M101/S003	Intel® Core I7-8565U	
PADR-M101/S004	Intel® Celeron 4305U	
PA-60DC12		AC/DC adapter, DC12V/5A 60W
OFX-075		75W power board,DC IN 9-36V,DC OUT 12V, 38*53mm, power consumption min. 60W, Max. 84W

# KMDA-2630

Intel® Elkhart lake CPU, VGA+HDMI, 2\*2.5G-LAN, 2\*USB3.1, 4\*COM, 8-bit DIO, Audio out, mSATA+2.5" SATA bay

## Key Specification

- Aluminum chassis, compact and fanless design
- Intel® Elkhart lake Celeron Soc CPU
- 1\*DDR4 3200MHz SODIMM, up to 16GB
- Intel® UHD Graphics, 1\*HDMI+1\*VGA
- 2\*Intel® I225V, up to 2.5Gbps bandwidth
- 2\*USB3.1 Gen2, 2\*USB2.0, optional Audio out
- 2\*RS232, 2\*RS232/422/485, 8-bit DIO
- 1\*mSATA & 1\*2.5" SATA bay
- DC 12V power supply, optional OFX-075 wide power input DC 9-36V



## Product Overview

KMDA-2630 is a compact fan-less box computer with low power consumption, powered by Intel Elkhart lake SoC Celeron series 4 cores or dual-core CPU, supporting 2.5G bandwidth network and dual USB3.1gen2 10G High-speed ports. It has rich IO functions with fanless aluminum frame. It is compact and delicate, and also support wide power input, which makes it suitable for machine vision, AGV/ARM, data gateway and other fields.

## Product Parameters

### Processor

CPU	Intel® Elkhart lake SoC CPU: Celeron J6412 2.0-2.6GHz; Celeron N6210 1.2-2.6GHz
RAM	1* DDR4 SO-DIMM, 3200MHz, up to 16GB
Graphics	Intel Gen10 UHD Graphics, HDMI2.0 max res. 4096*2304@60Hz VGA max res. 1920*1200@60Hz

LAN	2*Intel I225V, 10/100/1000/2500Mbps, support WOL
USB	2* USB3.2 Gen2, 2*USB2.0, 1*USB2.0(internal)
Display	1*HDMI+1*VGA
Audio	1*Line out, optional audio

Serial Ports/ Others	2*RS232/422/485, 2*RS232;
DIO	8-bit DIO(DB9)

### Storage

Storage	1*2.5" SATA3,6Gbps; 1*full size mSATA, support AHCI
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### Others

LED	1*Power LED, 1*HDD LED, 3*CPU Temp LED (Red is warning, Yellow is high, Green is normal)
Control switch	1* Power SW, 1*Remote SW, 1*AT/ATX SW, 1*Clear CMOS

Watchdog Timer	Watchdog timeout programmable via software 1 to 255 second
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### OS

OS	Windows 10, SUSE, Ubuntu, Wind River, Red Hat Enterprise
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### Expansion

Expansion Port	1*M.2 B-key 3052, with PCIe X1+USB2.0+SIM slot, support 5G/4G; 1* JHCTECH Express-01 80pin composite signal high speed interface: 2*PCIeX1, 4*USB2.0, Front-Audio, 1*PS/2, Front-Panel, 1*Sm bus & 1*eSPI
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### Power supply

Power supply	DC IN 12V, optional OFX-075 power board, DC9-36V wide power input, with short circuit, over voltage & over current protection
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### Mechanical

Structure	Aluminum chassis, SGCC
Color	Blue+white
Mounting	Desktop mounting
Dimension(W*D*H)	155*111.8*65 mm

Net weight	1.30KG
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### Environment

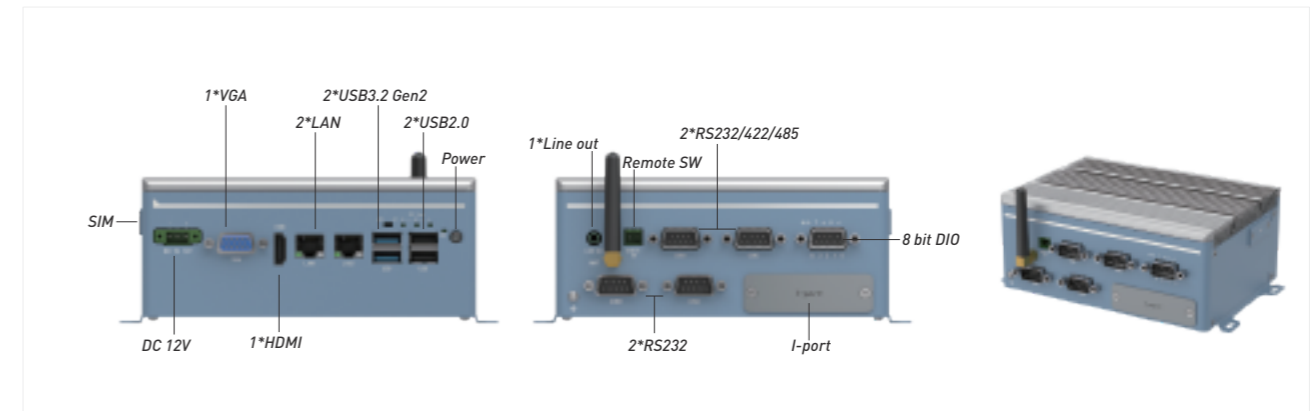
Operating Temp	-20°C~60°C, wide temp SSD, airflow
Storage Temp	-40°C~85°C
Storage Humidity	10~90%@40°C, non-condensing

Vibration	5 grms/5~500Hz/random/during operation(SSD); 1 grms/5~500Hz/random/during operation(HDD)
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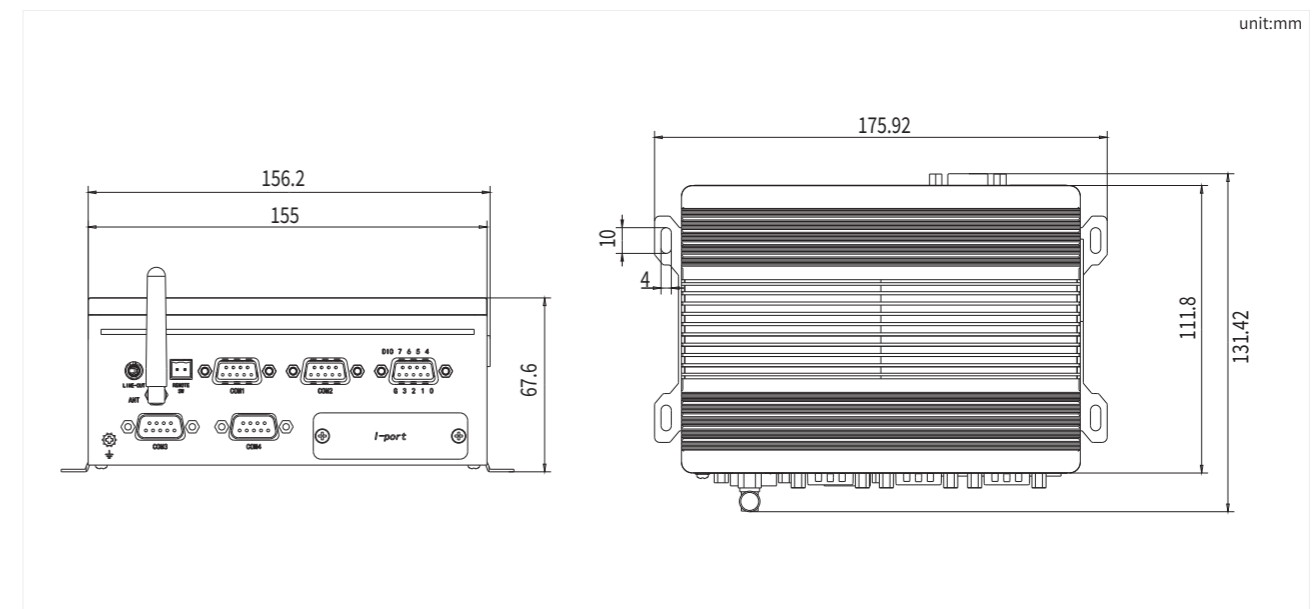
Shock	50g peak acceleration(11ms duration)(SSD); 20g peak acceleration(11ms duration)(HDD)
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Certificates/ EMC	CE/FCC Class B
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## I/O View



## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-2630/T001	Intel® Celeron J6412	1*DDR4 SODIMM, 2*LAN, 2*USB3.1, 3*USB2.0, 4*COM, 8-bit DIO, 1*M.2 1*VGA, 1*HDMI, optional 1*Line out, 1*mSATA, 1*2.5" SATA3.0, DC-IN 12V
KMDA-2630/T002	Intel® Celeron N6210	
OFX-075	75W power board, DC IN 9-36V, DC OUT 12V, 38*53mm, power consumption: Min.: 54W, Max. 78W	
PA-60DC12	AC/DC power adapter, DC 12V/5A 60W	

# KMDA-3301

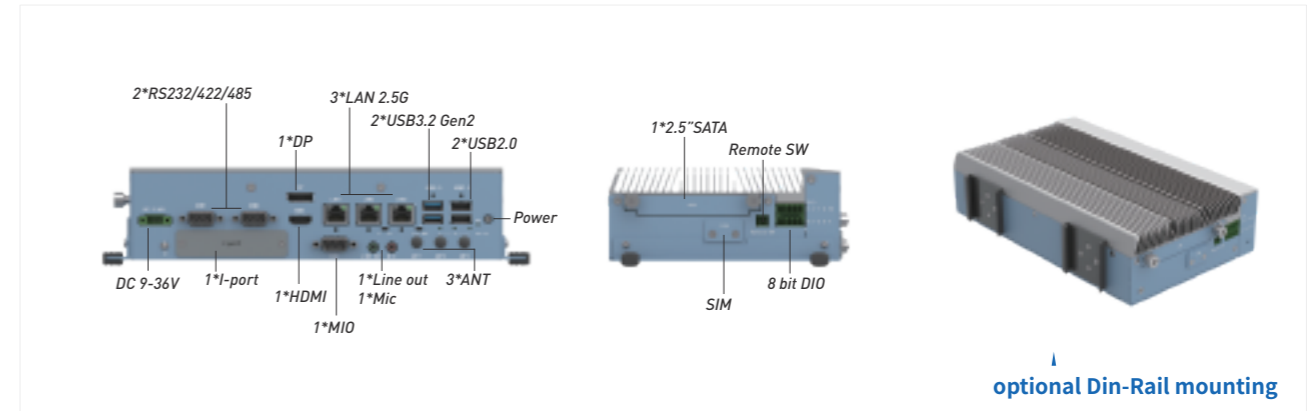
Intel® Tiger lake U Soc CPU, DP+HDMI, 3\*LAN, 2\*COM, 6\*USB, 1\*Mini PCIe, 1\*mSATA, 2\*M.2, support 5G NR, DC 9-36V wide power input

## Key Specification

- Intel® Tiger lake U Soc CPU
- Aluminum chassis, fanless design
- 3\*I255V LAN, support iAMT13.0
- 1\*DP+1\*HDMI, 8K+4K dual display output
- 1\*Mini PCIe support Wifi/BT, 1\*M.2 B-Key with SIM slot, support 5G NR
- 1\*M.2 M-Key, 1\*mSATA, 1\*SATA3.0
- DC 9~36V, with short circuit, over voltage & over current protection
- Support desktop mounting and Din-Rail mounting



## I/O View



## Product Overview

KMDA-3301 is a new fanless box PC, powered by Intel® Tiger lake U Soc CPU series, support Intel Boost Deep Learning technology. With shock absorption design, it is suitable for C-V2X MEC computing, AGV, machine vision and other applications.

## Product Parameters

### Processor

CPU	Intel® Tigerlake U Celeron/Core I3/I5/I7 CPU
Storage	2* DDR4 SO-DIMM slot, support 3200MHz, max up to 64GB
Graphics	Intel UHD Graphics or iRIS® Xe Graphics, Supports Intel Boost Deep Learning technology, DirectX12.1, OpenGL 4.6 and OpenCL 2.0, HDMI 2.0: 4096x2304@60Hz, DP 1.4: 7680x4320@60Hz
LAN	3*Intel I225V, 10M/ 100M/1000M/2.5G, support iAMT 13.0
USB	2*USB3.2 Gen 2(10Gbps), 2*USB2.0, 1*USB2.0 (TypeA), 1*USB2.0 (internal pinheader)
Display	1*HDMI+1*DP
Audio	1*Line out+1*Mic, optional audio
Serial Ports/ Others	2*RS232/422/485(DB9), 1*MIO(opt support built-in expansion module) 1*SIM slot (on the side)
DIO	1*8-bit DIO (2*5Pin phoenix term, side)

### Storage

Storage	1*2.5" SATA bay; 1* full size mSATA, support AHCI; 1*M.2 2280 M-Key NVME(PCIe X2 Gen4.0)
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### Others

LED	1*Power LED, 1*HDD LED, 3*CPU Temp LED (Red is warning, Yellow is high, Green is normal)
Control Switch	1*Power SW, 1*AT/ATX SW, 1*Clear CMOS Switch
Watchdog Timer	Watchdog timeout programmable via software 1 to 255 second

### Expansion

Expansion Port	1*Mini PCIe(PCIe X1+USB2.0), support Wifi/BT module 1*M.2 3052 B-Key, with SIM slot(PCIe X1+USB2.0), support 4G/5G 1*M.2 2280 M-Key(PCIe X2 Gen4), support high speed function card
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### Power supply

Power supply	DC IN 9~36V, 3-pin phoenix term, with short circuit, over voltage & over current protection
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### Mechanical

Structure	Aluminum chassis, SGCC
Color	Blue+white
Mounting	Desktop mounting, optional Din-Rail mounting
Dimension (L*W*H)	250*154*61.9mm
Net weight	2.55KG

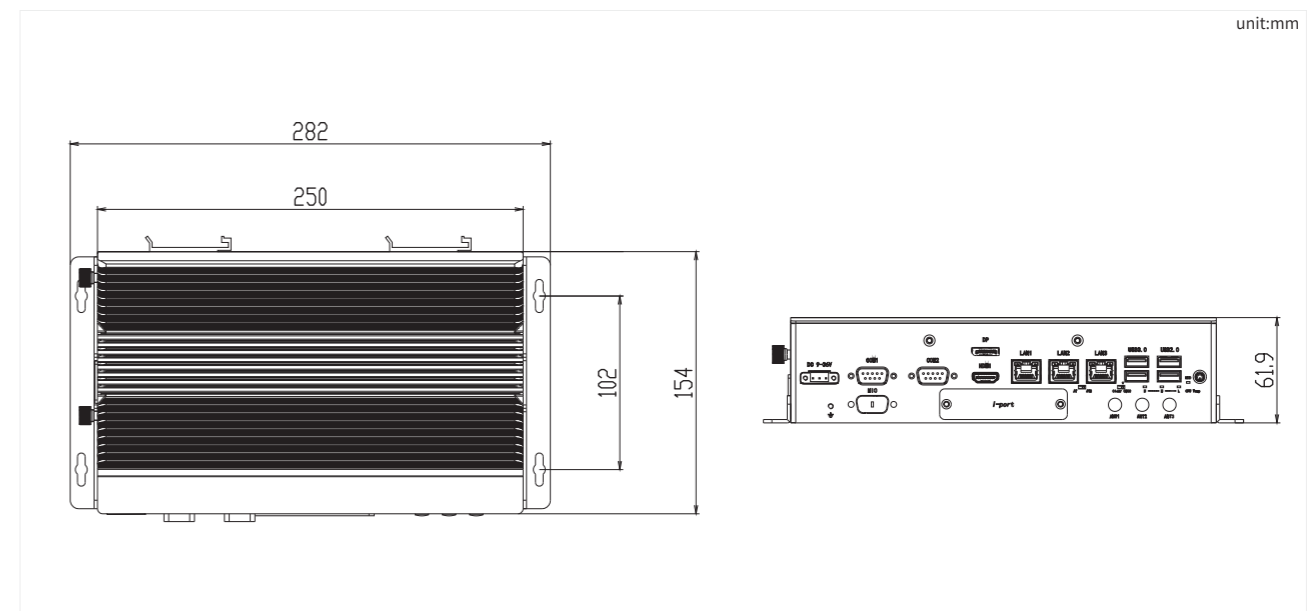
### Environment

Operating Temp	-20°C~65°C, wide temp SSD, airflow;
Storage Temp	-40°C~85°C
Storage Humidity	10~90%@40°C, non-condensing
Vibration	5 grms/5~500Hz/random/during operation(SSD); 1 grms/5~500Hz/random/during operation(HDD)
Shock	50g peak acceleration(11ms duration)(SSD); 20g peak acceleration(11ms duration)(HDD)

Certificates/ EMC	CE/FCC Class B
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OS	Windows 10 64 bit, SUSE, Ubuntu, Wind River, Linux
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## Dimensions



## Ordering Information

Model	Processor	Specifications
KMDA-3301-S001	Intel® Core I3-1115G4	2*DDR4 SODIMM, 3*2.5G-LAN, 2*USB3.2, 4*USB2.0, 2*COM, 8-bit DIO, 1*DP, 1*HDMI, optional Audio out & Mic, 1*Mini PCIe, 1*M.2 B-key, 1*M.2 M-Key, 1*MIO, 1*I-Port, 1*mSATA, 1*2.5" SATA bay, DC-IN 9-36V
KMDA-3301-S002	Intel® Core I5-1135G7	
KMDA-3301-S003	Intel® Core I7-1165G7	
KMDA-3301-S004	Intel® Celeron 6305E	
PA-60DC12	AC/DC power adapter, DC 12V/5A 60W	



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