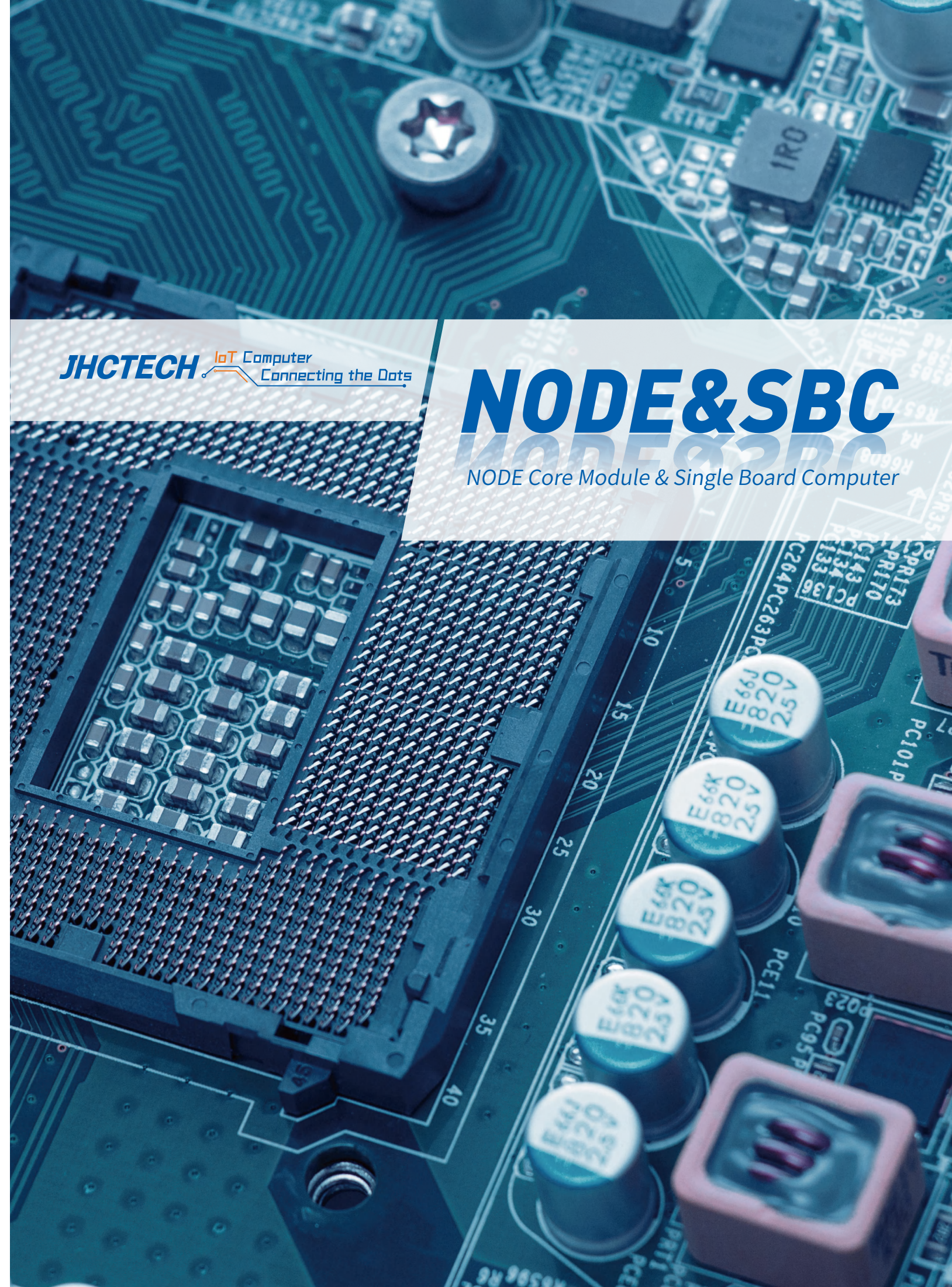


NODE&SBC

NODE Core Module & Single Board Computer



APPLICATION

Medical electronics



Maternal and child monitor

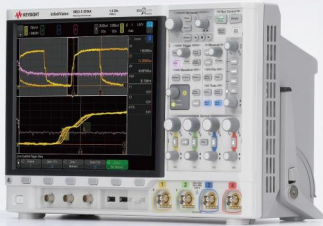


Blood analyzer



Urine Sediment Analyzer

Industrial portable analyzer



High-end oscilloscope



Battery protection tester



Environmental monitor

Robot

AGV

CNC Machine

Machine Vision

Product Listing F1-F6

NODE-I912	F01	ECM-I913	F15	PADR-M102-718	F31
		PITX-I915	F17		
NODE-I719	F03	MATX-I953	F19	PADR-M102-910	F33
NODE-I914	F05	MATX-I961	F21	PADR-M102-913	F35
NODE-I973	F07	MATX-I964	F23	PADR-S501-953	F37
EPI-I908	F09	ATX-I971	F25	PADR-S501-961	F39
ECM-I718	F11	ATX-I980	F27	PADR-S501-964	F41
ECM-I910	F13	PADR-M101	F29	PADR-S501-971	F43
				PADR-S501-980	F45

COMPLETE LIST

Service Content
NODE Core Module

- 1 Carrier Board Design:Comprehensive hardware and software design solutions
1. Providing reference drawings and schematics for developing carrier boards.
2. BIOS customization support
3. Linux driver support
4. Review of Party A's schematic and layout designs
5. Hardware debugging support
6. Recommendations for product reliability, including heat dissipation and ESD protection
- 2 Provide detailed electronic principle and structural heat dissipation design references
- 3 Structural, industrial and thermal design and other comprehensive design support

Advantages of
Modular Computers

- Standard Products
- 1 Modular functionality for easy maintenance
- 2 Standard applications
- Customer Design:
- 1 Simplified Customization Process
- 2 Tailored to Individual Needs
- 3 Protect Core Technologies
- 4 Rapid Response to Market Trends

- JHC Design:
- 1 Reduce R&D Costs
- 2 Improve Efficiency
- 3 Increased Product Value
- 4 Cost Reduction

NODE-I912					NODE-I719			
NODE-I914					NODE-I973			
EPI-I908					ECM-I718			
ECM-I910					ECM-I913			
System								
CPU					Intel® Skylake/Kabylake-U processor Celeron/Core i3/i5/i7			
RAM					Intel® Elkhart lake SoC CPU: Celeron J6412 2.0-2.6GHz/ Celeron N6210 1.2-2.6GHz			
Graphics					Intel® Gen. 9 HD Graphics;HDMI & 48-Bit LVDS Dual display, support Intel HD video & wireless display technology; HDMI:3840*2160@30Hz, LVDS:1920*1200@60Hz			
I/O								
LAN					2*Intel® I210AT/I211AT, 10-1000 M			
USB					2*Realtek 8111H, 10-1000M,WOL			
Display Audio					1*HDMI+1*LVDS(pin) 1*Line out+1*Mic, Realtek ALC662,1*Amplifier			
Serial port &Others					2*RS232/422/485,2*RS232(pin); 2 channel power amplifier output; 1*SM Bus wafer; 1*Capacitive touch screen interface, 1*Resistive touch screen interface			
DIO					8-bit DIO,programmable TTL			
Storage								
storage					2*SATA3 6.0Gbps; 1*mSATA,support AHCI			
Expansion								
Expansion					1*MiniPCle(PCleX1/USB+SIM), 4G/LTE/GSM/Wifi/BT/GPS; 1*80pin EIO:LPC、 SM Bus、2*PCleX1			
Power Supply								
Power& TDP					DC 9~36V, 3-pin terminal; 45W(I7-7500U, 4GB, 64GB SSD, 1TB HDD)			
Environment								
Dimension (W*H)					190*115mm (Height: 27.4mm, PCB: 1.6mm)			
Operating temp.					0~60°C			
Storage temp.					-40°C~85°C			
Storage Humidity					10~95%@40°C, No condensation			
EMC/ Certification					CE/FCC Class A			
Watchdog timer					programmable via software 1 to 255 second			
OS					Windows 7, Windows 10, Linux Fedora Ubuntu (Note: The seventh generation Intel® Kabylake-U processor does not support Windows 7)			
OS Support					Windows 10/Windows 11 64 bit, SUSE, Ubuntu, Wind River, Linux			

      						
PITX-I915 MATX-I953 MATX-I961 MATX-I964 ATX-I971 ATX-I980 PADR-M101						
System						
CPU	Intel® Tiger lake U Soc CPU (Core i3-1115G4/i5-1135G7/i7-1165G7, Celeron 6305E)		Intel® 6th/7th Gen Core i7/i5/i3/Pentium/ Celeron LGA1151 CPU, 91W		Intel® Xeon® E or 9th/8th-Gen Pentium/ Celeron/Core i7/i5/i3 LGA1151 CPU	
RAM	LPDDR4x Onboard memory, 16GB max.		2*DDR4 UDIMM,2133MHz, 32GB max.		4*DDR4 2666/2400MHz, 128GB max.	
Graphics	Intel UHD Graphics or iRIS® Xe Graphics , Supports Intel Deep Learning boost, DirectX12.1,OpenGL 4.6 and OpenCL 3.0, HDMI: 4096*2304@60Hz, eDP: 4096*2304@60Hz, 2 independent displays		Intel 9th HD Graphics, Direct3D 11.2,OpenGL 5.0, OpenCL 2.1; HDMI: 3840*2160@30Hz VGA: 1920*1200@60Hz DVI-D: 1920 x 1200 @ 60Hz		Intel 9th HD Graphic, Supports Direct3D 11.2,OpenGL 5.0, OpenCL 2.1; HDMI:4096*2304@24Hz, VGA:1920*1200@60Hz, DVI-D:1920*1200@60Hz, 2 independent Display	
I/O						
LAN	1*Intel® I210AT, 10-1000M; 1*Intel® I219LM, 10-1000M		1* Intel® I210AT/I211AT,10-1000M Intel® I219LM,10-1000M,iVpro		2*Intel I210AT/I211AT,10-1000M; 1*Intel I219LM,10-1000M,iVpro	
USB	2*USB3.2, 2*USB2.0 (built-in)		4*USB3.0, 2*USB2.0, 4*USB3.0(optional) 2*USB2.0 pin,1*USB2.0(built-in)		4*USB3.1, 4*USB2.0, 2*USB3.1(pin),1*USB2.0(Built-in)	
Display	1*HDMI+1*eDP		1*HDMI + 1*VGA+ 1*DVI-D		2*DP+1*HDMI	
Audio	1*Line in+1*Line out+1*Mic, Realtek ALC897		1*Line in+1*Line out+1*Mic, Realtek ALC897,1*Amplifier(optional)		1*Line in+1*Line out+1*Mic, Realtek ALC897	
Serial port &Others	1* RS232/422/485, 1*RS232		S001: 2*RS232/422/485, 4*RS232; S002: 2*RS232,10*RS232; 1*LPT, 1*LPC		4*RS232(pin); 1*PS/2(pin), 1*SM bus	
DIO	/		8-bit DIO,programmable TTL		8-bit DIO,Programmable TTL	
Storage						
storage	1*SATA 3.0, 6.0Gbps; 1*mSATA (Opt.)		4*SATA 3.0 HDD/SSD(1*SATA with power, support SATA DOM)		4*SATA3, HDD/SSD support RAID 0/1/5/10 1*M.2 2280 M-key(PCIe X4), NVMe	
Expansion						
Expansion	1*Mini PCIe(PCIeX1),PCIe module/mSATA; 1*M.2 2230 E-key, WiFi5/BT5.0,		1*PCIeX16(X16); 2*PCIeX4(X1), 1*Mini PCIe, 1* 32-bit PCI		1*Mini PCIe(+SIM); 2*PCIe X16(1*X16/2*X8), 2*PCIe X8(Gen3, 2*X4)	
Power Supply						
Power& TDP	DC 12V; TDP: 39.208W (i7-1165G7@2.8G)		24-Pin ATX+4-Pin ATX 12V 125W (i7-7700K/16G DDR4/128G SSD)		24-pin ATX/8-pin ATX 12V; 374W (i7-8700, 16GB DDR , 2*4TB, GTX-1660)	
Environment						
Dimension (W*H)	100*72mm		244*244mm (Height :34.9mm,PCB: 1.6mm)		244*244mm (Height:33.2mm, PCB: 1.6mm)	
Operating temp.	0~60℃		0~60℃		0~60℃	
Storage temp.	-40℃~85℃		-40℃~85℃		- 40℃~85℃	
Storage humidity	10~95%@40℃, Non condensation		10~95%@40℃, Non condensation		10~95%@40℃, Non condensation	
Certification /EMC	CE/FCC Class A		CE/FCC Class A		CE/FCC Class A	
Watchdog timer	programmable via software 1 to 255 second		programmable via software 1 to 255 second		programmable via software 1 to 255 second	
OS	Windows 11*IoT enterprise, Windows 10*IoT enterprise, Android, SUSE, Ubuntu, Wind River, Red Hat*Enterprise, Wind River VxWorks*7, Yocto		Windows 7(SKL-S:32bit/64bit, KBL-S:64bit), Windows 10,Linux VxWorks*7, Yocto		Windows 10 Enterprise & IOT Enterprise Windows Server 2016 (Intel® Xeon® E) Ubuntu,SuSe,Redhat Enterprise 1,2 Wind River VxWorks 7	
Optional function module						
ECB-246&ECD-2460						
						
PC interface	Mini PCIe,52Pin					
Ethernet	2*Intel I210AT,10-1000M					
Operating Temp	0℃~70℃					
Dimension	30*50.9*6.0mm (ECB-246) 51*27*18mm (ECD-2460)					
ECB-260 CANBus						
						
PC interface	Mini PCIe,52Pin					
CAN interface	2*DB9					
Application	FCANBus					
CAN standard	CAN2.0A/CAN2.0B,ISO/DIS 11898-1/2/3					
Protocol support	VehicleDBC. CANopen. J1939					
Operating Temp	-40℃~85℃					
Dimension	50.95*30*1.6mm					
OFX-075						
						
Input	DC IN 9-36V					
Output	DC OUT 12V					
TDP	54W~78W(max.)					
Operating Temp	0℃~60℃					
Dimension	53*38mm					

       																
PADR-M102-718		PADR-M102-910		PADR-M102-913		PADR-S501-953		PADR-S501-961		PADR-S501-964		PADR-S501-971		PADR-S501-980		
System																
CPU	Intel® Elkhart lake SoC CPU: Celeron J6412 Celeron N6210		Intel® Whiskey lake-U CPU, Core I7-8565U,Core I5-8265U,Core I3-8145U,Celeron 4305U		Intel® Tiger lake U Soc CPU , core i3-1115G4/i5-1135G7/i7-1165G7, Celeron 6305,TDP 12W/15W/28W		Intel 6/7th Gen. SKL/KBL-S Core i7/i5/i3/ Pentium/Celeron LGA1151 CPU, up to 91W, H110 Chipset		Intel® 8/9th Gen. Coffee-S Core i9/i7/i5/i3 LGA1151 CPU,up to 95W,Q370 Chipset		Intel® 8/9th Gen. Coffee-S Core i9/i7/i5/i3 LGA1151 CPU,up to 95W,H310 Chipset		Intel 10th Gen. Cometlake-S Core i9/i7/i5/i3/Pentium/Celeron LGA1200 CPU,up to 125W, H420E Chipset		Intel gen 12/13th Alderlake-S/Raptor Lake-S LGA1700 CPU; Q670 PCH	
RAM	1*DDR4, 3200MHz, 32GB max.		2*DDR4, 2400MHz, 32GB max.		2*DDR4, 3200MHz, 64GB max.		2*288 pin DDR4, 2400MHz, 32GB max.		4*288 pin DDR4, 2666MHz, 128GB max.		2*288 pin DDR4, 2666MHz, 64GB max.		2*288 pin DDR4, 2933MHz, 64GB max.		2*288 pin DDR4, 2933MHz, 64GB max.	
Graphics	Intel® Gen. 10 UHD Graphics, HDMI:4096*2304@60Hz, DP:4096*2160@60Hz,2 independent Display		Intel® Gen. 9 UHD Graphics, HDMI:4096*2304@24Hz, DP:4096*2304@60Hz,2 independent Display		Intel UHD Graphics/ Xe Graphics , Supports Intel DL boost,DirectX12.1, OpenGL 4.6 and OpenCL 3.0, HDMI:4096*2304@60Hz, DP:7680*4320@60Hz,2 independent Display		Intel HD Graphics, DirectX12, OpenGL 4.5; HDMI:4096*2304@24Hz, VGA:1920*1200@60Hz, DVI-D:1920*1200@60Hz		Intel® UHD Graphics,DirectX12,OpenGL 4.5; HDMI:4096*2304@24Hz, DP:4096*2304@60Hz,3 independent display		Intel® UHD Graphics,DirectX12,OpenGL 4.5; HDMI:4096*2304@24Hz, VGA:1920*1200@60Hz, DVI-D:1920*1200@60Hz		Intel® UHD Graphics,DirectX12,OpenGL4.5; HDMI:4096*2160@30Hz, VGA:1920*1200@60Hz		Intel® UHD Graphics,DirectX12,OpenGL4.5; HDMI:4096*2160@30Hz, VGA:1920*1200@60Hz	
I/O																
LAN	2*Realtek 8111H,10-1000M,WOL		1*Intel I219LM,10-1000M,WOL; 1*Intel I226V,10-1000M,WOL		1*Intel I219LM,10-1000M,WOL,iAMT13.0; 1*Intel I226V,10-1000M,WOL		1*Intel I210AT/I211AT, 10-1000M,WOL; 1*Intel I219LM, 10-1000M,WOL		2*Intel I210AT/I211AT, 10-1000M,WOL; 1*Intel I219LM,10-1000M,WOL/AMT12.0/iVpro		1*Intel I226V, 10M-2.5G, WOL; 1*Intel I219LM, 10-1000M, WOL		1*Intel I226V, 10M-2.5G, WOL; 1*Intel I219LM, 10-1000M, WOL		1*Intel I226V, 10M-2.5G, WOL; 1*Intel I219LM, 10-1000M, WOL	
USB	4*USB3.1		4*USB3.0(5G)		4*USB3.2		4*USB3.0(5Gbps), 5*USB2.0		4*USB3.1 Gen2(10Gbps), 7*USB2.0		4*USB3.1 Gen1(5Gbps), 5*USB2.0		4*USB3.2 Gen1(5Gbps), 5*USB2.0		4*USB3.2 Gen1(5Gbps), 5*USB2.0	
Display	1*DP+1*HDMI		1*DP+1*HDMI		1*DP+1*HDMI		1*HDMI+1*VGA+1*DVI-D		2*DP+1*HDMI		1*HDMI+1*VGA+1*DVI-D		1*HDMI+1*VGA		1*HDMI+1*VGA	
Audio	1*Line out+1*Mic,Realtek ALC897		1*Line out+1*Mic,Realtek ALC897		1*Line out+1*Mic,Realtek ALC897		1*Line out+1*Mic,Realtek ALC662VD/ALC897		1*Line out+1*Mic,Realtek ALC662VD		1*Line out+1*Mic,Realtek ALC897		1*Line out+1*Mic,Realtek ALC897		1*Line out+1*Mic,Realtek ALC897	
Serial port & Others	2*RS232/422/485, 1*RS232		2*RS232/422/485, 1*RS232		2*RS232/422/485, 1*RS232		2*RS232/422/485, 1*RS232		2*RS232/422/485		2*RS232/422/485, 1*RS232		2*RS232/422/485, 2*RS232		2*RS232/422/485, 2*RS232	
DIO	8bit DIO(OptionalRS232)programmable		8bit DIO(OptionalRS232)programmable		8bit DIO(OptionalRS232)programmable		8bit DIO(pin),programmable		8bit DIO(pin),programmable		8bit DIO(pin),programmable		8bit DIO(pin),programmable		8bit DIO(pin),programmable	
Storage																
storage	1*2.5" SATA,15mm; 1*mSATA		1*2.5" SATA,15mm; 1*mSATA(Optional)		1*2.5" SATA,15mm; 1*mSATA(Optional)		4xSATA3, 6.0Gbps , the box is designed with 4x3.5 "and 2x2.5" a set of anti-vibration hard disk bay, 1 ultrathin DVD driver bay		4xSATA3, 6.0Gbps , the box is designed with 4x3.5 "and 2x2.5" a set of anti-vibration hard disk bay, 1 ultrathin DVD driver bay		4xSATA3, 6.0Gbps , the box is designed with 4x3.5 "and 2x2.5" a set of anti-vibration hard disk bay, 1 ultrathin DVD driver bay		4xSATA3, 6.0Gbps , the box is designed with 4x3.5 "and 2x2.5" a set of anti-vibration hard disk bay, 1 ultrathin DVD driver bay		4xSATA3, 6.0Gbps , the box is designed with 4x3.5 "and 2x2.5" a set of anti-vibration hard disk bay, 1 ultrathin DVD driver bay	
Expansion																
Expansion	1*M.2 2230 B-Key,Wifi5/BT5.0, or 1*M.2 3052 E-Key,4G LTE/5G NR		1*Mini PCIe(+SIM),4G LTE/Wifi/BT/mSATA; 1*M.2 2230 E-Key,Wifi/BT		1*Mini PCIe,PCIe module/mSATA; 1*M.2 2230 E-Key,Wifi5/BT5.0, or 1*M.2 3052 B-Key(+SIM),4G LTE/5G NR		1*PCIe3.0 X16(X16)+ 2*PCIe2.0 X4(X1)+1*32 bit PCI; 1*Mini PCIe(X1)		2*PCIe3.0 X16(1*X16 or 2*X8)+ 2*PCIe3.0 X8(X4)+1*32 bit PCI; 1*M.2 2280 M-Key(PCIe3.0X4) 1*Mini PCIe(X1,USB+SIM)		1*PCIe3.0 X16(X8)+ 2*PCIe2.0 X4(X1)+1*32 bit PCI; 1*M.2 2280/2242 M-Key(PCIe2.0 X2)		1*PCIe3.0 X16(X16)+ 3*PCIe3.0 X4(X2+1+1 or Bios X4)+ 3*32 bit PCI		1*PCIe3.0 X16(X16)+ 3*PCIe3.0 X4(X2+1+1 or Bios X4)+ 3*32 bit PCI	
Power Supply																
Power&TDP	DC 12V/DC 9~36V; TDP:TBD		DC 12V/DC 9~36V; 27.9W(I7-8565U,16GB DDR,1*4T SSD)		DC 12V/DC 9~36V; TDP:TBD		AC100-240V,Standard ATXPower 300W, Optional 500W/750W; TDP:TBD		AC100-240V,Standard ATXPower 300W, Optional 500W/750W/1000W; TDP:TBD		AC100-240V,Standard ATXPower 300W, Optional 500W/750W; 197.8W (I7-9900K/16G DDR4/256G SSD)		AC100-240V,Standard ATXPower 300W, Optional 500W/750W; 184.85W(I7-10700K/16G DDR4/256G SSD)		AC100-240V,Standard ATXPower 300W, Optional 500W/750W; 184.85W(I7-10700K/16G DDR4/256G SSD)	
Mechanical																
Structure	SGCC		SGCC		SGCC		Door with lock, SGCC, metal mold molding		Door with lock, SGCC, metal mold molding		Door with lock, SGCC, metal mold molding		Door with lock, SGCC, metal mold molding		Door with lock, SGCC, metal mold molding	
Color	Silk Grey+Pastel Blue		Silk Grey+Pastel Blue		Silk Grey+Pastel Blue		Granite grey		Granite grey		Granite grey		Granite grey		Granite grey	
Installation	desktop mounting		desktop mounting		desktop mounting		Mounted on 19"rack, optional mounting rail set		Mounted on 19"rack, optional mounting rail set		Mounted on 19"rack, optional mounting rail set		Mounted on 19"rack, optional mounting rail set		Mounted on 19"rack, optional mounting rail set	
Dimension (W*H*D)	204*148*70mm		204*148*70mm		204*148*70mm		430*470*173mm		430*470*173mm		430*470*173mm		430*470*173mm		430*470*173mm	
Weight	1.55KG		1.55KG		1.55KG		14KG		14KG		14KG		14KG		14KG	
Environment																
Operating temp.	0℃~50℃,SSD,with air flow;		0℃~50℃ ,SSD,with air flow;		0℃~50℃,SSD,with air flow;		0℃~50℃		0℃~50℃		0℃~50℃		0℃~50℃		0℃~50℃	
Storage temp.	-40℃~85℃		-40℃~85℃		-40℃~85℃		-40℃~85℃		-40℃~85℃		-40℃~85℃		-40℃~85℃		-40℃~85℃	
Storage humidity	10~95%@40℃, Non-condensation		10~95%@40℃, Non-condensation		10~95%@40℃, Non-condensation		10~95%@40℃, Non-condensation		10~95%@40℃, Non-condensation		10~95%@40℃, Non-condensation		10~95%@40℃, Non-condensation		10~95%@40℃, Non-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)	
Certification	CE/FCC Class A		CE/FCC Class A		CE/FCC Class A		CE/FCC Class A,3C		CE/FCC Class A, 3C		CE/FCC Class A, 3C		CE/FCC Class A, 3C		CE/FCC Class A, 3C	
OS	Windows 10/Windows 11 64 bit, SUSE, Ubuntu, Windows 11, Windows 10, SUSE, Ubuntu, Wind River, Linux		Win 11/Win 10*IoT enterprise,Android,-SUSE,Ubuntu,Wind River,Red Hat*Enterprise,Wind River VxWorks*7,Yocto		Win 11/Win 10*IoT enterprise,Android,-SUSE,Ubuntu,Wind River,Red Hat*Enterprise,Wind River VxWorks*7,Yocto		Windows 7(SKL-S:32/64 bit,KBL-S:64 bit), Windows 10, Linux		Windows 10 Enterprise & IOT Enterprise(64) Windows Server 2016 (Intel® Xeon® E) Ubuntu. SuSe. Redhat Enterprise 1,2 Wind River VxWorks 7 (CFL-R)		Windows7、Windows 10 Enterprise & IOT Enterprise (64); Windows Server 2016 Ubuntu. SuSe; Redhat Enterprise 1,2 Wind River ;VxWorks 7		Windows 10, Windows 11, Linux Ubuntu		Windows 10, Windows 11, Linux Ubuntu	
Watchdog timer	programmable via software 1 to 255 second		programmable via software 1 to 255 second		programmable via software 1 to 255 second		programmable via software 1 to 255 second		programmable via software 1 to 255 second		programmable via software 1 to 255 second		programmable via software 1 to 255 second		programmable via software 1 to 255 second	

NODE-I912

Intel® Tiger lake U Soc CPU, Intel IEN Type F, supports single-channel DDR4 3200 MHz, up to 64GB. DC IN 12V

Key Specification

- Intel® Tiger lake U Soc CPU module
- Intel® Core I7/I5/I3/Celeron
- Designed according to Intel IEN Type F specification
- Dual-channel DDR4 3200Mhz, up to 64GB
- 4*PCle×1 or 1*PCle×4, 1*PCle Gen3 lanes, 2*PCle×1 Gen4 lanes
- 3*GbE LAN, 2*SATA, 2*DDI, 4*USB3.1, 8*USB2.0, 3*COM,
- 1*HDA, eSPI, DIO
- DC IN 12V



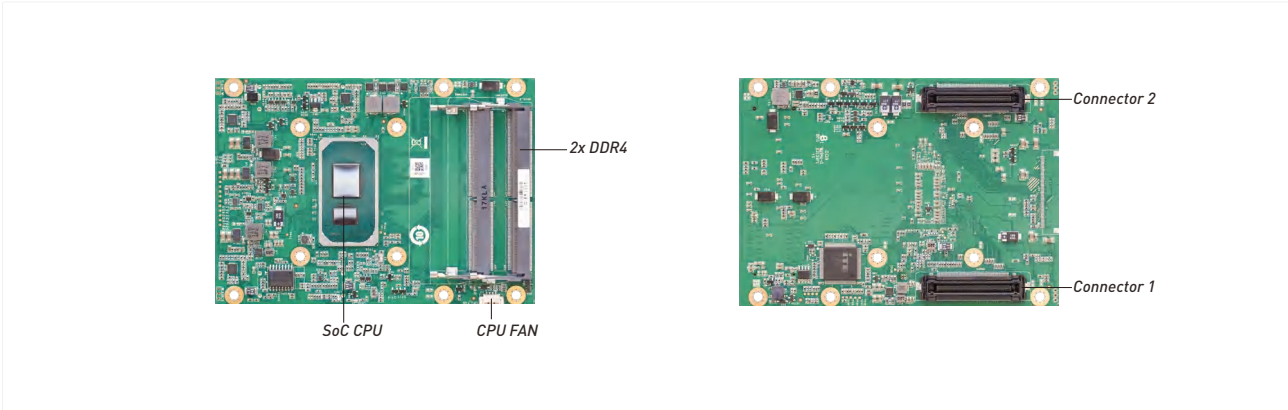
Product Overview

NODE-I912 powered by Intel® Tiger lake U Soc CPU, designed according to the INTEL industrial edge node Type F standard, supporting dual-channel DDR4 3200MHz memory, up to 64GB. NODE-I912 is a compact product with low power consumption and flexible expansion. It is suitable for medical imaging, military, rail transit and power applications.

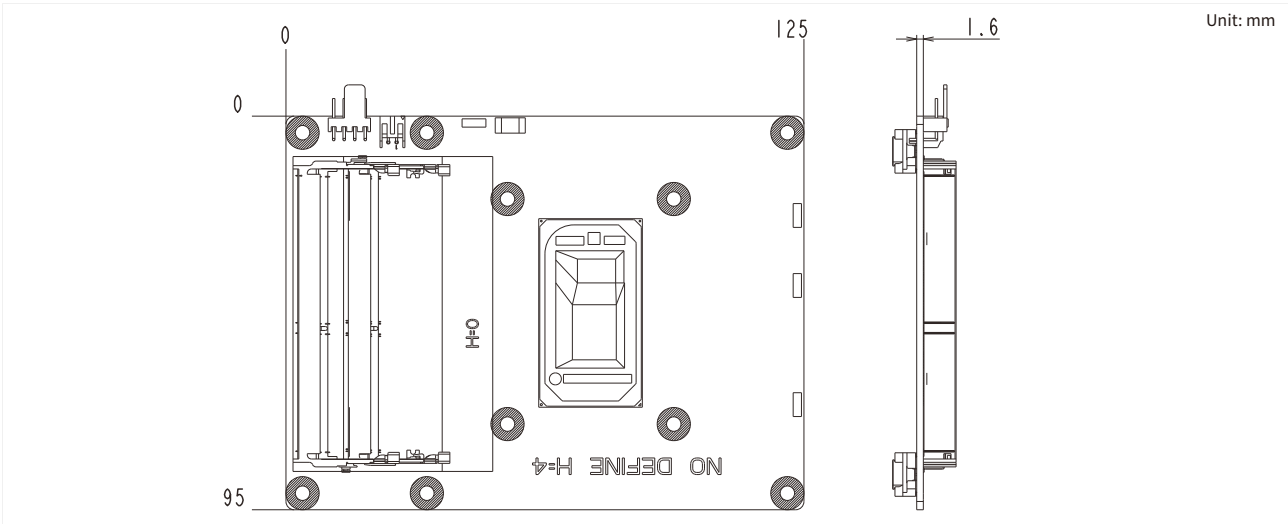
Product Parameters

Formfactor		INE Type F	
CPU	Intel® Tiger lake U SoC CPU:	Power& TDP	
		DC IN 12V; TDP-up:28W(Celeron 6305E--15W)	
		Dimension	
DRAM	Dual-channel DDR4 2*260-pin SO-DIMM, up to 3200MHz, 64GB max.	Operating temp.	
		133*95*16.6mm	
		Storage temp.	
Graphics	Intel UHD Graphics or Iris® Xe Graphics, Supports Intel® Deep Learning Boost, DirectX12.1,OpenGL 4.6 and OpenCL 2.0; HDMI 2.0: 4096x2304@60Hz, DP 1.4: 7680x4320@60Hz, eDP: 4096x2304@60Hz	Storage Humidity	
		10~95%@40°C, Non-condensing	
		EMC/Certification	
Connector 1	eSPI and Fusa PCle Gen3 4x1/1x4 PCle Gen3 or USB3.2 2 COM 1 USB2.0 3 SATA 1 DDI 1 GPIO Up to 15 channels F-Panel: Power SW/Reset/PW-LED/HDD-LED	Watchdog Timer	
		Watchdog timeout programmable via software 1 to 255 second	
		OS Support	
Connector 2	PCle Gen3 1 PCle Gen3 or USB3.1 2 CPU PCle Gen4 2 HDA 1 USB2.0 5 SATA 1 DDI 1 COM 2 GPIO Up to 30 channels	Windows 10/Windows 11 64 bit, SUSE, Ubuntu, Wind River, Linux	

I/O View



Dimensions



Ordering Information

Module No.	CPU	Introduction
NODE-I912/S001	Intel® Core I3-1115G4	Intel® Tiger lake U Soc Core I7/I5/I3/Celeron CPU, 2*DDR4 3200MHz, Connector1(1*eSPI, Fusa, 4*PCleX1, Legacy IO, 2*PCle(USB3.1), Power SW/Reset/PW-LED/HDD-LED, 1*DDI, 3*USB2.0,1*PCle(SATA) ,1*COM, GPIO),
NODE-I912/S001/GRE	Intel® Core I3-1115GRE	
NODE-I912/S002	Intel® Core I5-1135G7	
NODE-I912/S002/GRE	Intel® Core I5-1145GRE	Connector2(1*DDI, 1*PCle(SATA), 2*PCle(USB3.1), 1*PCleX1, 1*CPU PCleX2, Legacy IO, HDA, 5*USB2.0, 2*COM, GPIO), DC 12V power in
NODE-I912/S003	Intel® Core I7-1165G7	
NODE-I912/S003/GRE	Intel® Core I7-1185GRE	
NODE-I912/S004	Intel® Celeron 6305E	

NODE-I719

Intel Elkhart lake Soc CPU module, supports single-channel DDR4 3200 MHz, up to 32GB. DC IN 12V

Key Specification

- Intel Elkhart lake Soc CPU module
- Single-channel DDR4 3200MHz, up to 32GB
- 2*DDI output, 1*eDP
- 4*PCIeX1, 1*PCIeX2
- 2*SATA, 4*USB3.1, 10*USB2.0, 1*HDA, 4*UART, GPIO, 1*eSPI
- DC IN 12V



Product Overview

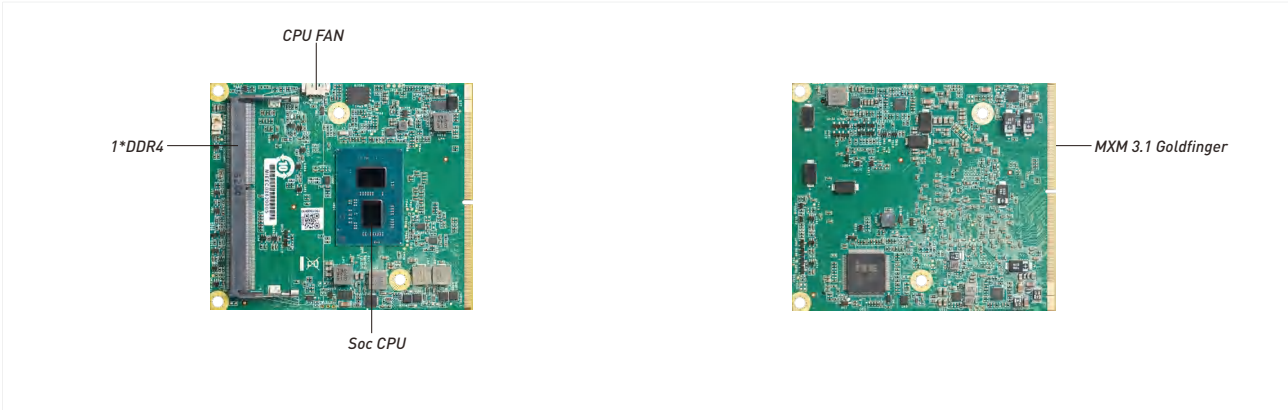
NODE-I719 powered by Intel Elkhart lake Soc CPU, supports single-channel DDR4 3200MHz memory, up to 32GB. The size of the mother-board module is thin and small, which is an economical product with low power consumption and flexible expansion, suitable for industrial automation, security, environmental protection, logistics and warehousing management applications.

Product Parameters

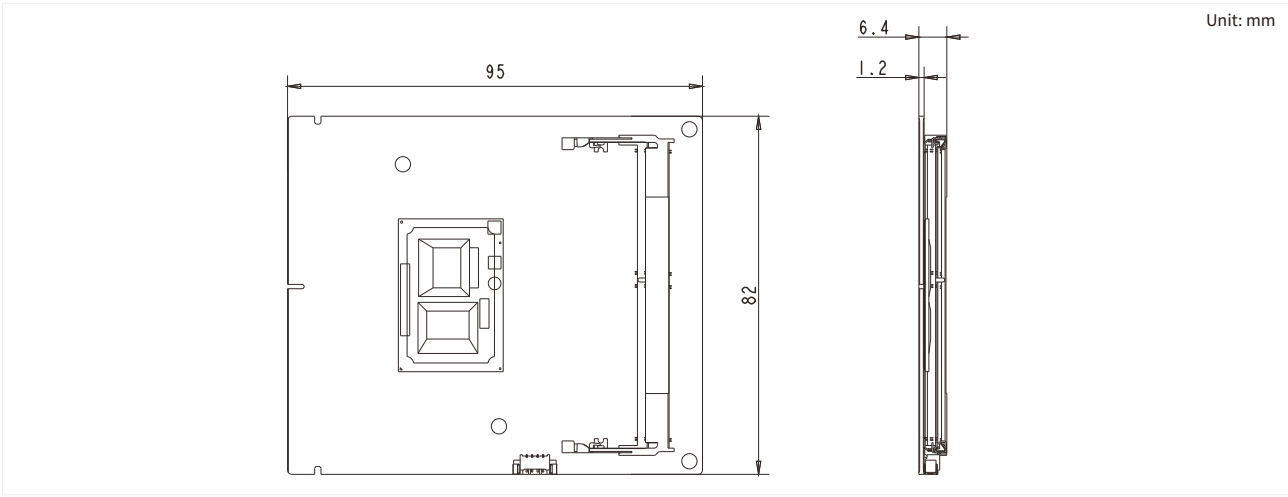
Formfactor NODE Type

CPU	Intel Elkhart lake Soc CPU:		Graphics	Intel® UHD Graphics, DirectX12.1, OpenGL and OpenCL; DP1.4 : 4096*2160@60Hz, eDP: 4096*2160@60Hz
	Celeron J6412, 4C4T, 2.0-2.6GHz/10W Celeron N6210, 2C2T, 1.2-2.6GHz/6.5W			
MXM 3.1 Goldfinger(281-Pin)			DRAM	Single channel DDR4 1*260-pin SO-DIMM, up to 3200MHz, 32GB max.
DDI		2	Power& TDP	DC IN 12V;
eDP		1	Dimension	95*82*6.4mm
USB3.1		4	Operating temp.	0~60°C
USB2.0		10	Storage temp.	-40°C~85°C
PCIeX1		4	Storage Humidity	10~95%@40°C, Non-condensing
PCIeX2		1	EMC/ Certification	CE/FCC Class A
SATA(PCIeX1)		2	Watchdog Timer	Watchdog timeout programmable via software 1 to 255 second
eSPI		1		
HDA		1		
SM BUS		1		
Legacy IO		1		
RTC		1		
UART		4		
GPIO		3		
F-Panel: Power SW/Reset/PW-LED/HDD-LED				
OS Support		Windows 10/Windows 11 64 bit, SUSE, Ubuntu, Wind River, Linux		

I/O View



Dimensions



Ordering Information

Module No.	CPU	Introduction
NODE-I719/S001	Intel® Celeron J6412	Intel Elkhart lake Soc CPU, 1*DDR4 3200MHz, MXM 3.1 Goldfinger(4*PCIeX1, 1*PCIeX2, 4*USB3.1, 10*USB2.0, 2*SATA, 1*HDA Legacy IO, 1*eDP, 1*eSPI, 1*SPI, Power SW/Reset/PW-LED/HDD-LED, 2*DDI, 3 bit GPIO, SM BUS, RTC, 4*UART), DC 12V
NODE-I719/S002	Intel® Celeron N6210	

NODE-I914

Intel® Tiger lake U Soc CPU module, supports single-channel DDR4 3200 MHz, up to 32GB. DC IN 12V

Key Specification

- Intel® Tiger lake U Soc CPU module
- Single-channel DDR4 3200MHz, up to 32GB
- 2*DDI output, 1*eDP
- 4*PCIeX1, 1*PCIeX2, 1*PCIeX4
- 2*SATA 4*USB3.1, 10*USB2.0, 1*HDA, 4*UART, GPIO, 1*eSPI
- DC IN 12V



Product Overview

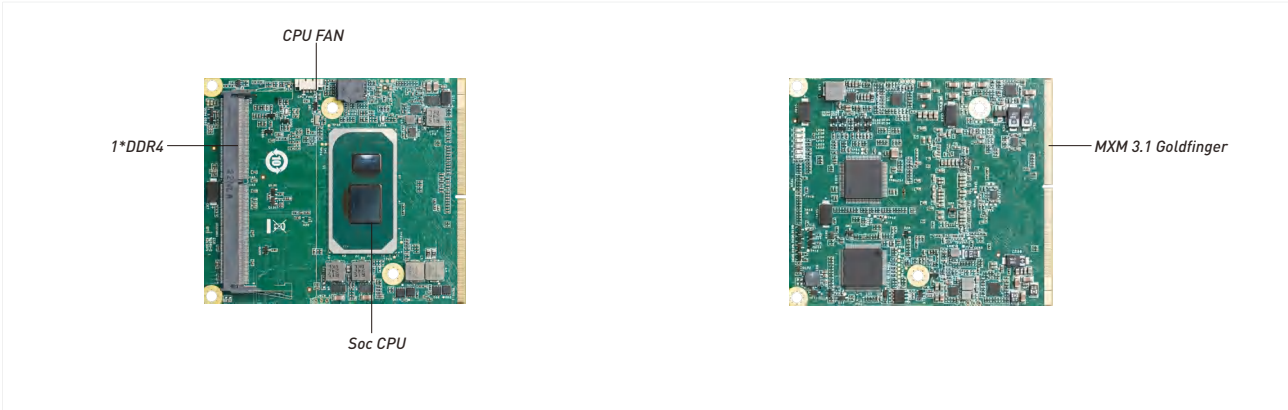
NODE-I914 powered by Intel® Tiger lake U Soc CPU, supporting single-channel DDR4 3200Mhz memory, up to 32GB. The size of the mother-board module is thin and small, which is an economical product with low power consumption and flexible expansion, suitable for industrial automation, security, environmental protection, logistics and warehousing management applications.

Product Parameters

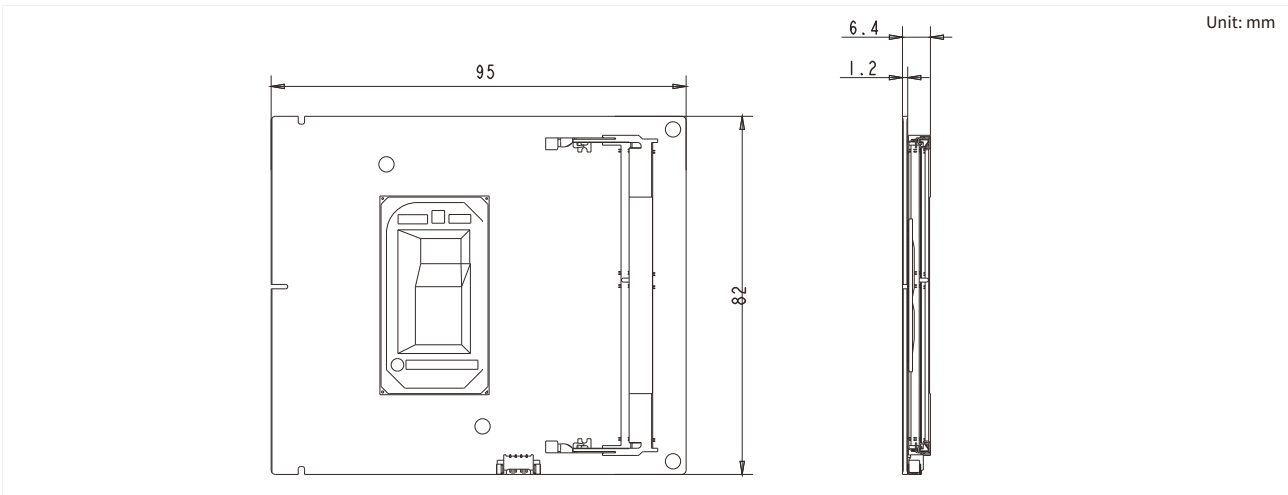
Formfactor NODE Type

CPU	Intel® Tiger lake U SoC CPU:		Graphics	Intel Iris® Xe Graphics, DirectX12.1, OpenGL 4.6 and OpenCL 3.0; HDMI 2.0: 4096x2304@60Hz, DP 1.4: 7680x4320@60Hz, eDP: 4096x2304@60Hz																															
	i7-1165G7, 4C8T, 2.7~4.7GHz/28W; i5-1135G7, 4C8T, 2.4~4.2GHz/28W; i3-1115G4, 2C4T, 3.0~4.1GHz/28W; Celeron 6305E, 2C2T, 1.8GHz/15W;																																		
MXM 3.1 Goldfinger(281-Pin)																																			
<table><tr><td>DDI</td><td>2</td></tr><tr><td>eDP</td><td>1</td></tr><tr><td>USB3.2</td><td>4</td></tr><tr><td>USB2.0</td><td>10</td></tr><tr><td>PCIeX1</td><td>4</td></tr><tr><td>PCIeX2</td><td>1</td></tr><tr><td>SATA(PCIeX1)</td><td>2</td></tr><tr><td>eSPI</td><td>1</td></tr><tr><td>HDA</td><td>1</td></tr><tr><td>SM BUS</td><td>1</td></tr><tr><td>Legacy IO</td><td>1</td></tr><tr><td>RTC</td><td>1</td></tr><tr><td>UART</td><td>4</td></tr><tr><td>GPIO</td><td>3</td></tr><tr><td colspan="2">F-Panel: Power SW/Reset/PW-LED/HDD-LED</td></tr></table>						DDI	2	eDP	1	USB3.2	4	USB2.0	10	PCIeX1	4	PCIeX2	1	SATA(PCIeX1)	2	eSPI	1	HDA	1	SM BUS	1	Legacy IO	1	RTC	1	UART	4	GPIO	3	F-Panel: Power SW/Reset/PW-LED/HDD-LED	
DDI	2																																		
eDP	1																																		
USB3.2	4																																		
USB2.0	10																																		
PCIeX1	4																																		
PCIeX2	1																																		
SATA(PCIeX1)	2																																		
eSPI	1																																		
HDA	1																																		
SM BUS	1																																		
Legacy IO	1																																		
RTC	1																																		
UART	4																																		
GPIO	3																																		
F-Panel: Power SW/Reset/PW-LED/HDD-LED																																			
DRAM				Single channel DDR4 1*260-pin SO-DIMM, up to 3200MHz, 32GB max.																															
Power& TDP																																			
DC IN 12V;																																			
Dimension																																			
95*82*6.4mm																																			
Operating temp.																																			
0~60°C																																			
Storage temp.																																			
-40°C~85°C																																			
Storage Humidity																																			
10~90%@40°C, Non-condensing																																			
EMC/ Certification																																			
CE/FCC Class A																																			
Watchdog Timer																																			
Watchdog timeout programmable via software 1 to 255 second																																			
OS Support																																			
Windows 10/Windows 11 64 bit, SUSE, Ubuntu, Wind River, Linux																																			

I/O View



Dimensions



Ordering Information

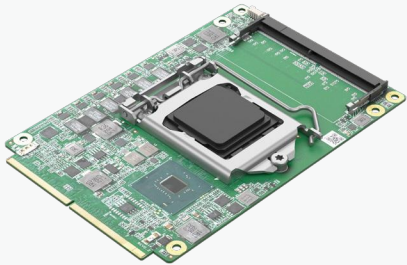
Module No.	CPU	Introduction
NODE-I914/S001	Intel® Core i3-1115G4	Intel®Tiger lake U Soc Core i7/i5/i3/Celeron CPU, DDR4 3200MHz, 2*DDI, 1*eDP, 4*USB3.2, 10*USB2.0, 1*PCIeX2, 1*PCIeX4, RTC, 4*PCIeX1, 2*SATA, 1*eSPI, 1*HDA, 1*SPI, Legacy IO, SM BUS Power SW/Reset/PW-LED/HDD-LED, 3 bit GPIO, 4*UART, DC 12V power in
NODE-I914/S002	Intel® Core i5-1135G7	
NODE-I914/S003	Intel® Core i7-1165G7	
NODE-I914/S004	Intel® Celeron 6305E	

NODE-I973

Intel® Comet lake-S CPU module, supports dual-channel DDR4 2933 MHz, up to 64GB. DC IN 12V

Key Specification

- Intel® Comet lake-S CPU module
- Dual-channel DDR4 2933MHz, up to 64GB
- Intel® H420E chipset with long life cycle
- 2*DDI output, 1*eDP
- 5*PCIeX1, 1*PCIeX2
- 2*SATA, 6*USB3.2, 10*USB2.0, 1*HDA, 3*URAT, GPIO, 1*LPC
- DC IN 12V



Product Overview

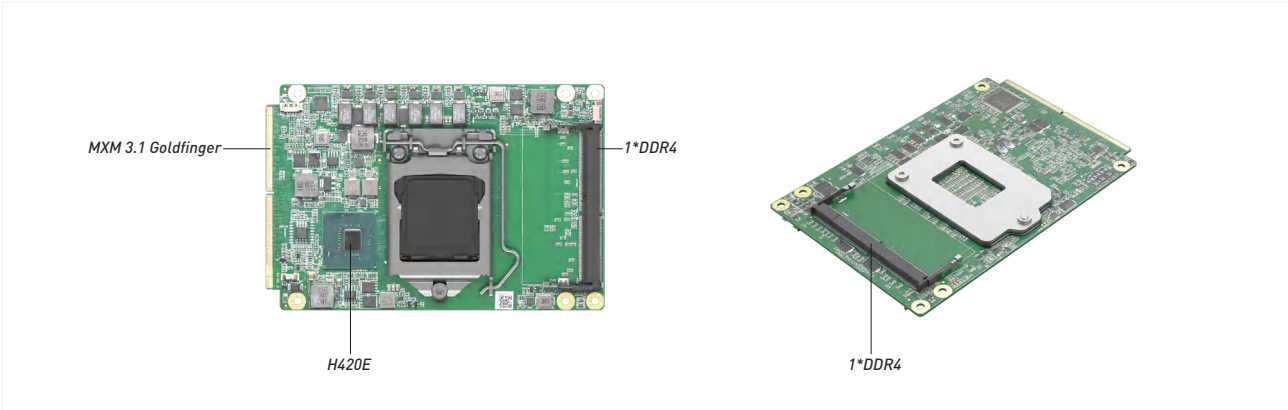
NODE-I973 powered by Intel® Comet lake-S CPU and Intel H420E chipset. supports dual-channel DDR4 2933MHz memory, up to 128GB. The size of the motherboard module is thin and small, which is an economical product with low power consumption and flexible expansion, suitable for industrial automation, security, environmental protection, logistics and warehousing management applications.

Product Parameters

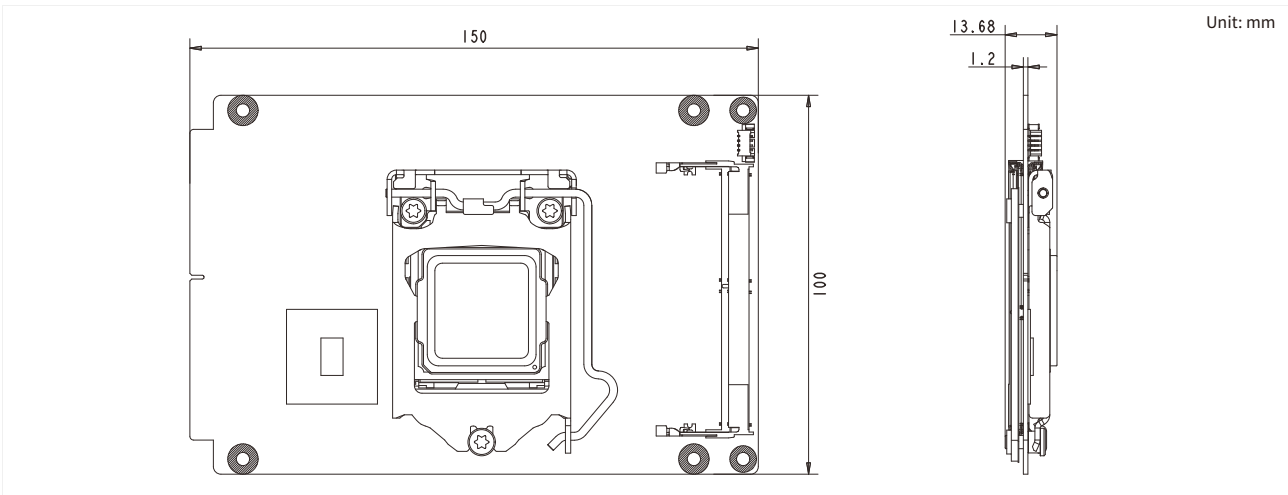
Formfactor NODE Type

CPU	Intel® Comet lake-S CPU:		Graphics	Intel® UHD Graphics 630, DirectX 12, OpenGL 4.5 and OpenCL 2.1;
	Core i9/i7/i5/i3/Celeron			HDMI:4096*2160@30Hz, DP:4096*2304@60Hz, eDP:4096*2304@60Hz
MXM 3.1 Goldfinger(281-Pin)			DRAM	Dual-channel DDR4 2*260-pin SO-DIMM, up to 2933MHz, 64GB max.
DDI	2	F-Panel: Power SW/Reset/PW-LED/HDD-LED	Power& TDP	DC IN 12V;
eDP	1		Dimension	150*100*13mm
USB3.2	6		Operating temp.	0~60°C
USB2.0	10		Storage temp.	-40°C~85°C
PCIeX1	5		Storage Humidity	10~95%@40°C, Non-condensing
PCIeX2	1		EMC/ Certification	CE/FCC Class A
SATA(PCIeX1)	4		Watchdog Timer	Watchdog timeout programmable via software 1 to 255 second
eSPI	1			
HDA	1			
SM BUS	1			
Legacy IO	1			
RTC	1			
UART	3			
GPIO	3			
			OS Support	Windows 10/Windows 11 64 bit, SUSE, Ubuntu, Wind River, Linux

I/O View



Dimensions



Ordering Information

Module No.	CPU	Introduction
NODE-I973/S001	Intel® Comet lake-S	Intel Comet lake-S LGA1200 CPU+H420E PCH, 2*DDR4 2933MHz, MXM 3.1 Goldfinger(2*DDI, 1*eDP, 6*USB3.2, 10*USB2.0, 5*PCIeX1, 1*PCIeX2, RTC, 4*SATA, 1*HDA, SM BUS, Legacy IO, 1*SPI, 3*UART, 1*LPC, Power SW/Reset/PW-LED/HDD-LED, 3 bit GPIO), DC 12V

EPI-I908

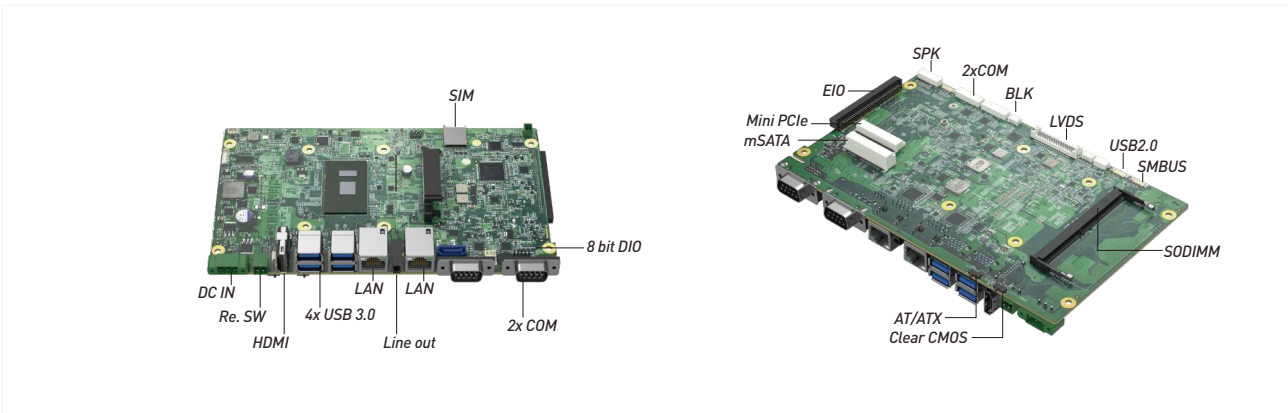
Intel® Skylake/Kabylake-U CPU, 1-CH DDR4, HDMI, LVDS, 2*LAN, 4*COM, 4*USB3.0, Audio, DC 9~36V .

Key Specification

- Intel® Skylake/Kabylake-U processor
- 1-Ch DDR4 SODIMM, 16GB max.
- 1*HDMI, 1*LVDS, Audio, power amplifier
- 2*LAN, 4*USB3.0, 2*USB2.0
- 4*COM, 1*JHC high-speed bus specification expansion interface EIO
- 1*Mini PCIe, 1*SIM card slot, support GPS/WiFi/LTE/GSM
- 2*SATA3.0 6Gbps, 1*mSATA for storage
- Optional support TPM 2.0 security encryption, iVpro technology
- DC 9~36V wide voltage power supply



I/O View



Product Overview

EPI-I908 is OSBC series embedded single board computer, equipped with Intel® Skylake/Kabylake-U processor, supports GPS/WiFi/LTE/GSM wireless function, DC 9~36V wide voltage power supply, compact size, complete functions, suitable for various compact embedded system application requirements.

Product Parameters

System

CPU	Intel® Skylake/Kabylake-U processor Celeron/Core i3/i5/i7
RAM	1*DDR4,2133MHz,SODIMM, 16GB max.
Graphics	Intel® Gen. 9 HD Graphics;HDMI & 48-Bit LVDS Dual display, support Intel HD video technology, wireless display technology HDMI:3840*2160@30Hz LVDS:1920*1200@60Hz

I/O

LAN	2*Intel® I210AT PCIe Gig. Ethernet,Gigabit
USB	4* USB3.0, 1*USB2.0
Display	1*HDMI+1*LVDS(48-bit pin)
Audio	1*Line out+1*Mic, Optional audio,1*Amplifier 2*RS232/422/485, 2*RS232(pin);
Serial port &Others	2 channel power amplifier output; 1*SM Bus wafer; 1*Capacitive touch screen interface; 1*Resistive touch screen interface
DIO	8-bit DIO,Programmable TTL

Others

Control switch	1*2pin Remote switch;1*AT/ATX; 1*Clear CMOS
Indicator	Pin of motherboard (Power LED, HDD LED)
Watchdog timer	Watchdog timeout programmable via software 1 to 255 second
TPM	Optional support TPM2.0

Storage

storage	2*SATA3 port,rate: 6.0Gbps; 1*mSATA,support AHCI
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Expansion

Expansion Port	1*MiniPCIe(PCIeX1/USB+SIM),4G/L TE/GSM/Wifi/BT/GPS; 1*80pin EIO with LPC, SM Bus, 2*PCIeX1
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Power Supply

Input voltage	DC 9~36V input, 3-pin terminal;
Power consumption	45W (I7-7500U, 4GB, 64GB SSD, 1TB HDD)

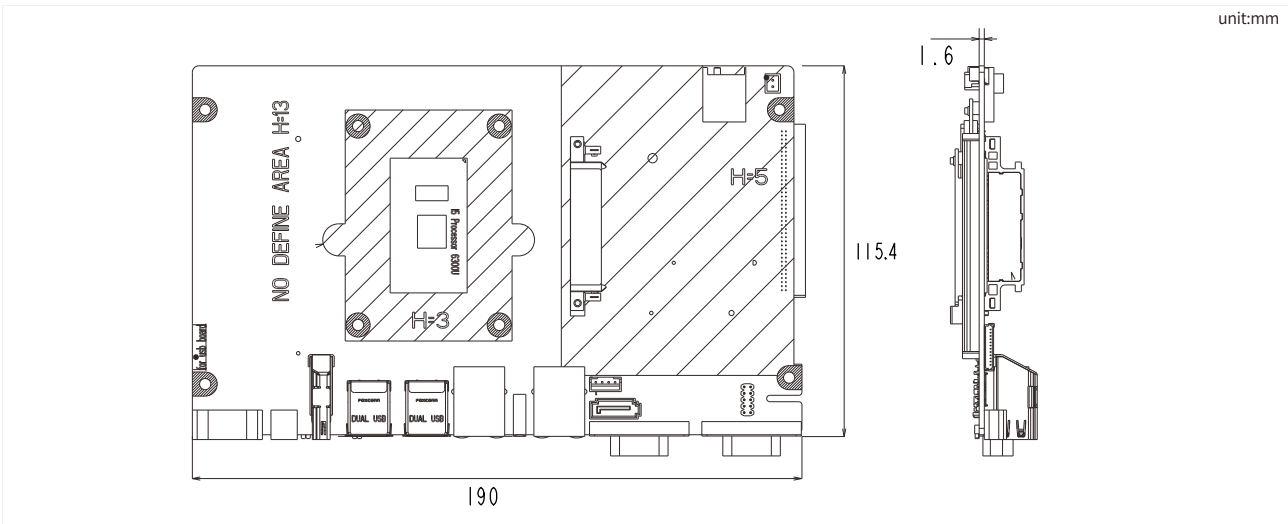
Environment

Dimension(W*H)	190*115.4mm(Overall height 27.4mm, PCB thickness 1.6mm)
Operating temp	0~60°C
Storage temp	- 40°C~85°C
Storage humidity	10~90%@40°C, No condensation
Certification/EMC	CE/FCC Class A

OS

OS	Windows 7, Windows 10, Linux Fedora Ubuntu (The 7th generation Intel® Kabylake-U processor does not support Windows 7)
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Dimensions



Ordering Information

Model	Processor	Specifications
EPI-I908/S001	Intel® I3-6100U/I3-7100U	1*SODIMM DDR4, 2*LAN,4*USB3.0, 2*USB2.0,4*COM, 1*Mini PCIe,1*EIO,1*8bit DIO(2*5 pin) 1*HDMI,1*LVDS, optional 1*Line out+1*Mic,1*Amplifier,1*mSATA,2*SATA3,DC 9~36V
EPI-I908/S002	Intel® I5-6200U/I5-7200U	
EPI-I908/S003	Intel® I7-6500U/I7-7500U	
EPI-I908/S004	Intel® 3855U/3865U	
ECI-105	1 slot PCI backplane, providing 1 PCI expansion slot	
ECX-106	1 slot PCIe backplane, providing 1 PClex1 expansion slot	

Optional Accessories

Model	Specifications
ECI-105	1 slot PCI , providing 1 PCI expansion slot
ECX-106	1 slot PCIe, providing 1 PCI expansion slot

ECM-I718

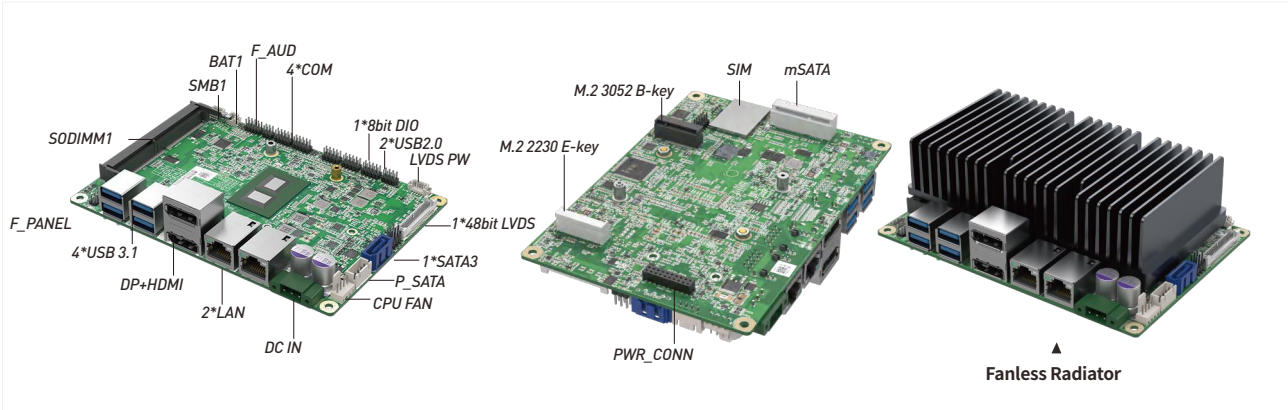
Intel® Elkhart lake Soc CPU,single channel DDR4,1*HDMI,1*DP,2*LAN,4*USB3.1,4*COM,1*8bit DIO, 1*M.2 B-key/E-key,1*mSATA, 1*SATA3.0, DC 12V

Key Specification

- Intel® Elkhart lake Soc CPU
- Single channel DDR4 SODIMM, support 3200MHz, up to 32GB
- 1*HDMI, 1*DP, 1*48-bit LVDS, 3 independent displays
- 2*LAN, 4*USB3.1, 2*USB2.0, 4*COM, 1*8-bit DIO
- 1*M.2 2230 E-key supports WIFI/BT or 1*M.2 3052 B-key with SIM card slot, supports 4G LTE/5G NR
- 1*SATA3.0 HDD/SSD,1*mSATA(with USB2.0) for storage
- Active or passive, two different thickness radiator selection
- DC IN12V,9-36V wide power input for optional (OFX-075)



I/O View



Product Overview

ECM-I718 is a 3.5-inch embedded mainboard equipped with Intel® Elkhart lake Soc CPU. It has complete IO functions, flexible selection of power supply, active and passive radiators, and the compact size is suitable for installation in limited space scenarios. It is very suitable for AGV and AMR, medical inspection, machine vision, industrial control, digital city and smart security and other industries and fields.

Product Parameters

System

CPU	Intel® Elkhart lake SoC CPU: Celeron J6412 2.0-2.6GHz 4C4T/ Celeron N6210 1.2-2.6GHz 2C2T
RAM	1*260 pin DDR4 SODIMM,3200MHz, 32GB max.
Graphics	Intel Gen10 UHD Graphics, H.265/HEVC/HW; HDMI:4096*2304@60Hz, DP:7680*4320@60Hz, LVDS:1920*1200@60Hz,3 independent display

I/O

LAN	2*Realtek 8111H , 10-1000M,WOL
USB	4*USB3.1(10Gbps), 2*USB2.0(pin)
Display	1*HDMI+1*DP+1*LVDS(pin)
Audio	1*Line in+1*Line out+1*Mic,Realtek ALC897
COM& Others	1* RS232/422/485(pin),3*RS232(pin)
DIO	8-bit DIO,programmable TTL

Storage

Storage	1*SATA 3.0 HDD/SSD,6 Gbps,1*mSATA
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Others

Switch	F_panel(PW SW, Reset SW),1*AT/ATX,1*Clear CMOS, 1* USB 5V/SB
LED	1*PowerLED; 1*HDD LED; 3*CPU Temp LED(Red is alarm, Yellow is high temp, Green is normal temp)
WDT	programmable via software 1 to 255 second

Expansion

Expansion	1*M.2 2230 E-key(USB2.0/PCIeX1),WiFi5/BT 5.0; or 1*M.2 3052 B-key(USB2.0/PCIeX1+SIM),4G LTE/5G NR
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Power

Power& TDP	DC 12V; Optional OFX-075,75W,DC 9-36V; TDP:15.6W (CPU: Celeron J6412/32G DDR4/128 SSD)
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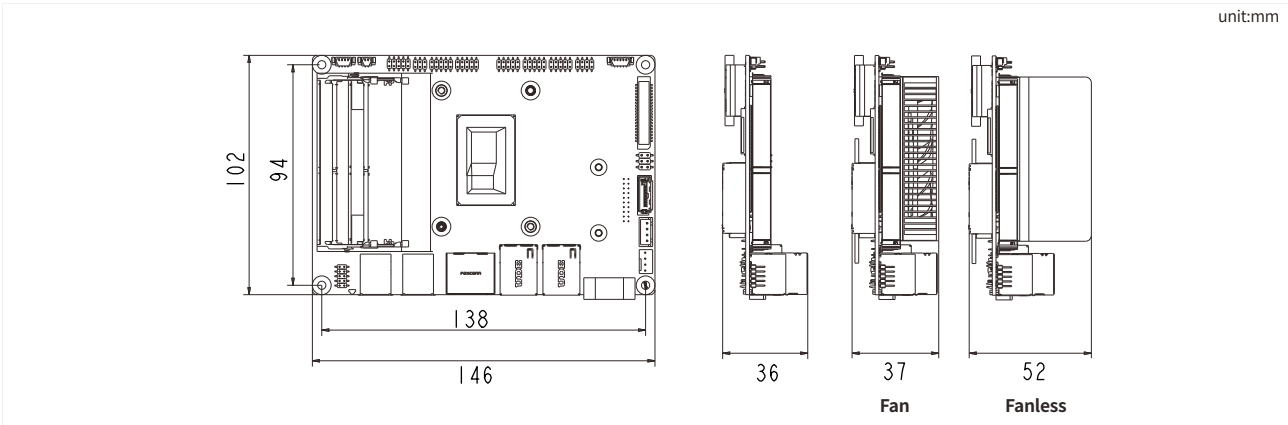
Environment

Dimension(W*H)	146*102mm(Height: radiator with fan 37mm, fanless radiator 52mm, PCB:1.6mm)
Operating Temp	0~60°C
Storage Temp	-40°C~85°C
Storage Temp	10~95%@40°C, No-condensation
Certificate/EMC	CE/FCC Class A

OS

OS	Windows 10/Windows 11 64 bit, SUSE, Ubuntu, Wind River, Linux
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Dimensions



Ordering Information

Model	Processor	Specifications	*Optional	
ECM-I718/S001	Celeron J6412	1*SODIMM DDR4, 2*LAN,4*USB3.1, 2*USB2.0,1*M.2 2230 E-Key,1*M.2 3052 B-Key(B or E-Key), 1* mSATA, 4*COM, 1*8-bit DIO, 1*DP,1*HDMI,1*LVDS, 1*SM BUS, 1*Audio, 1*SATA3.0,DC 12V	Radiator with Fan	Pure copper+Aluminium alloy heat radiator,four-wire intelligent temperature control ball-bearing fan,silent ultra-thin design,fan cable 100mm,size: 137*70*24.2mm (After installation, the total thickness of the motherboard is 37mm)
ECM-I718/S002	Celeron N6210			
ECM-I718/S001-WP	Celeron J6412	1*SODIMM DDR4, 2*LAN,4*USB3.1, 2*USB2.0,1*M.2 2230 E-Key,1*M.2 3052 B-Key(B or E-Key), 1* mSATA, 4*COM, 1*8-bit DIO, 1*DP,1*HDMI,1*LVDS, 1*SM BUS, 1*Audio, 1*SATA3.0,DC 9~36V	Fanless Radiator	Pure copper+Aluminium alloy heat radiator,size: 137*70*39.3mm(After installation, the total thickness of the motherboard is 52mm)
ECM-I718/S002-WP	Celeron N6210			

Accessories

Standard			*Optional	
Serial ports cable	DB9 male,300mm	4	DIO cable	DB9 male,300mm
SATA cable	(7+15)pin SATA power supply +SATA data cable,300mm	1	Audio cable	Three in a row (Line-out/Line-in/Mic) 3.5mm phone jack, 300mm
Screw jumper	Two M2 screws +Two jumper caps (spare)	1	USB2.0 cable	Two in a row Type A,300mm
DC-IN pin	3.81 pitch 3pin phoenix plug with earhole	1		

ECM-I910

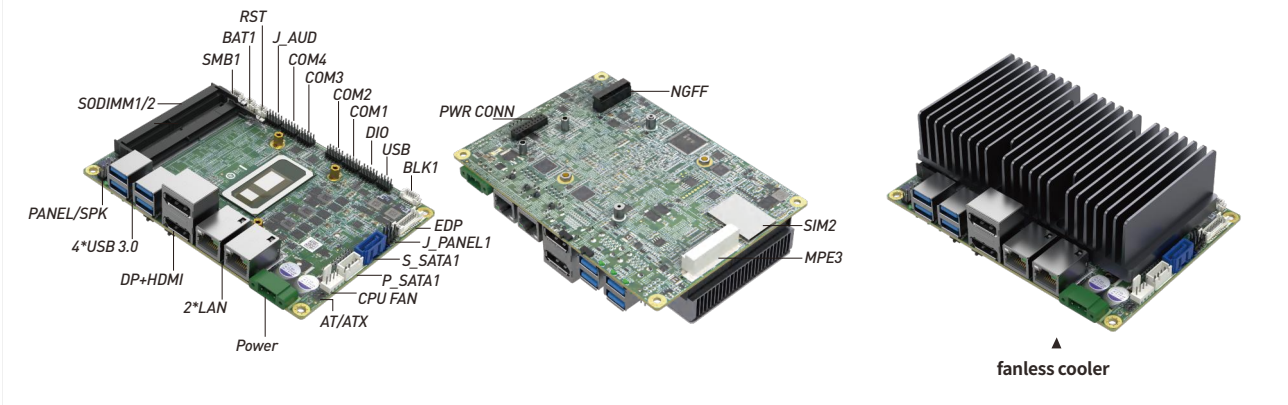
Intel® Whiskey lake U CPU,Dual channel DDR4,1*HDMI,1*eDP,1*DP,2*LAN,4*USB3.0,4*COM,1*8-bit DIO,1*M.2 E-key,1*mini PCIe,DC 12V.

Key Specification

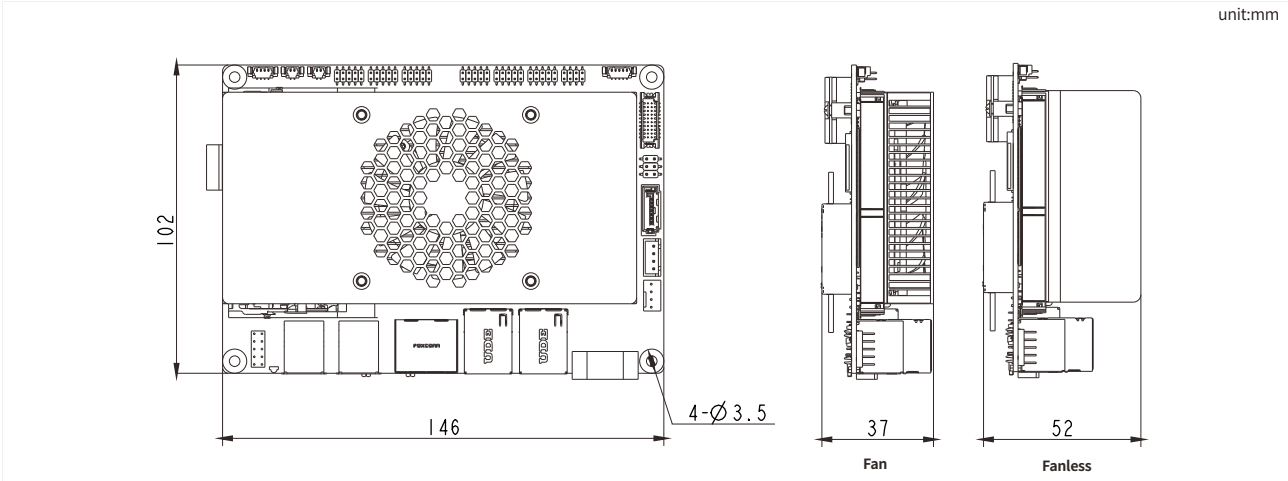
- Intel 8th Whiskey lake U Core i3/i5/i7/Celeron series processors
- Dual-channel DDR4 SODIMM, support up to 2400MHz, Max. 32GB
- 1*HDMI, 1*eDP, 1*DP, 3 independent 4K display ports
- 2*LAN, 10/100/1000Mbps,4*USB3.0, 2*USB2.0, 4*COM, 1*8-bit DIO
- 1*M.2 2230 E-key, support WiFi 6/BT 5.0
- 1*Full-length Mini PCIe, support 4G/WiFi/BT(can be changed to mSATA via BIOS)
- 1*SATA3.0 HDD/SSD, 1*mSATA for storage (optional)
- Optional support TPM2.0, DC IN12V, optional 9-36V wide voltage input
- Compact size, complete functions, suitable for various compact embedded system application requirements



I/O View



Dimensions



Product Overview

ECM-I910 is a standard 3.5-inch embedded single-board computer, equipped with Intel's 8th-generation Whiskey lake U Core i3/i5/i7/Celeron series processors. It supports 4G LTE/Wifi/BT and other wireless functions. It is with compact size and complete functions , suitable for various compact embedded system application requirements.

Product Parameters

System

CPU	Intel Whiskey lake U Celeron/Core i3/i5/i7
RAM	2*DDR4 SODIMM,2400MHz, 32GB max.
Graphics	Intel® Gen. 9 UHD Graphics,Support 3*4K independent display,DirectX 12,HEVC/H265 HW HD codec, the highest dynamic frequency can reach 1.2GHz;HDMI :4096*2304@24Hz; DP :4096*2304@60Hz; eDP :4096x2304@60Hz;

I/O

LAN	1*Intel® I226V, 10-1000M; 1*Intel® I219LM, 10-1000M
USB	4*USB3.0, 2*USB2.0(pin)
Display	1*HDMI(1.4)+1*DP(1.2)+1*eDP(pin)
Audio	1*Line out+1*Mic(pin),Optional audio
Serial port &Others	2* RS232/422/485(pin),2*RS232(pin)
DIO	8-bit DIO,Programmable TTL

Others

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

Storage

storage	1*SATA 3.0 HDD/SSD,1*mSATA(optional)
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Expansion

Expansion	1*M.2 2230 E-key,support WiFi/BT 5.0; 1*Mini PCIe(+SIM), 4G LTE,BIOS to mSATA
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Power Supply

Input voltage	DC 12V, optional OFX-075 75W DC 9-36V ;
Power consumption	19.92W (I5-8265U, 8GB DDR, 500G SSD)

Environment

Dimension(L*W)	146*102mm (Height: radiator with fan 37mm, fanless radiator 52mm, PCB:1.6mm)
Operating temp	0~60°C
Storage temp	-40°C~85°C
Storage humidity	10~95%@40°C, No condensation
Certification/EMC	CE/FCC Class A

OS

OS	Windows 10 IoT enterprise, Andriod, Ubuntu, Suse, Red Hat enterprise, Wind River Vxworks 7, Yocto
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Ordering Information

			*Optional
ECM-I910/S001	Intel® Core I3-8145U	2*SODIMM DDR4, 2*LAN,4*USB3.0, 2*USB2.0,1*M.2 2230 E-Key,1* Full size mini PCIe/mSATA,4*COM, 1*8-bit DIO, 1*DP,1*HDMI,1*eDP, 1*Line out+1*Mic,1*SATA3.0, DC 12V	Radiator with Fan Pure copper+Aluminium alloy heat radiator,four-wire intelligent temperature control ball-bearing fan,silent ultra-thin design,fan cable 100mm,size: 137*70*24.2mm (After installation, the total thickness of the motherboard is 37mm)
ECM-I910/S002	Intel® Core I5-8265U		
ECM-I910/S003	Intel® Core I7-8565U		
ECM-I910/S004	Intel® Celeron 4305U	2*SODIMM DDR4, 2*LAN,4*USB3.0, 2*USB2.0,1*M.2 2230 E-Key,1* Full size mini PCIe/mSATA,4*COM, 1*8-bit DIO, 1*DP,1*HDMI,1*eDP, 1*Line out+1*Mic,1*SATA3.0, DC 9-36V	Fanless Radiator Pure copper+Aluminium alloy heat radiator,size: 137*70*39.3mm(After installation, the total thickness of the motherboard is 52mm)
ECM-I910/S001-WP	Intel® Core I3-8145U		
ECM-I910/S002-WP	Intel® Core I5-8265U		
ECM-I910/S003-WP	Intel® Core I7-8565U		
ECM-I910/S004-WP	Intel® Celeron 4305U		

Accessories

Standard			*Optional	
Serial ports cable	DB9 male,300mm	4	DIO cable	DB9 male,300mm
SATA cable	(7+15)pin SATA power supply +SATA data cable,300mm	1	Audio cable	Three in a row (Line-out/Line-in/Mic) 3.5mm phone jack, 300mm
Screw jumper	Two M2 screws +Two jumper caps (spare)	1	USB2.0 cable	Two in a row Type A,300mm
DC-IN pin	3.81 pitch 3pin phoenix plug with earhole	1		

ECM-I913

Intel® Tiger lake U Soc CPU, Dual Channel DDR4,1*HDMI,1*DP,2*LAN,4*USB3.2,4*COM,1*8bit DIO, 1*M.2 B-key/E-key,1*mSATA, 1*SATA3.0, DC 12V

Key Specification

- Intel® Tiger lake Soc CPU
- Dual channel DDR4 SODIMM, support 3200MHz, up to 64GB
- 1*HDMI, 1*DP, 1*48-bit LVDS, 3 independent displays
- 2*LAN, 4*USB3.2, 2*USB2.0, 4*COM, 1*8-bit DIO
- 1*M.2 2230 E-key supports WIFI/BT or 1*M.2 3052 B-key with SIM card slot, supports 4G LTE/5G NR
- 1*full size Mini PCIe, supports PCIe modules
- 1*SATA3.0 HDD/SSD,1*mSATA(Optional) for storage
- Active or passive, two different thickness radiator selection
- DC IN12V,9-36V wide power input for optional (OFX-075)



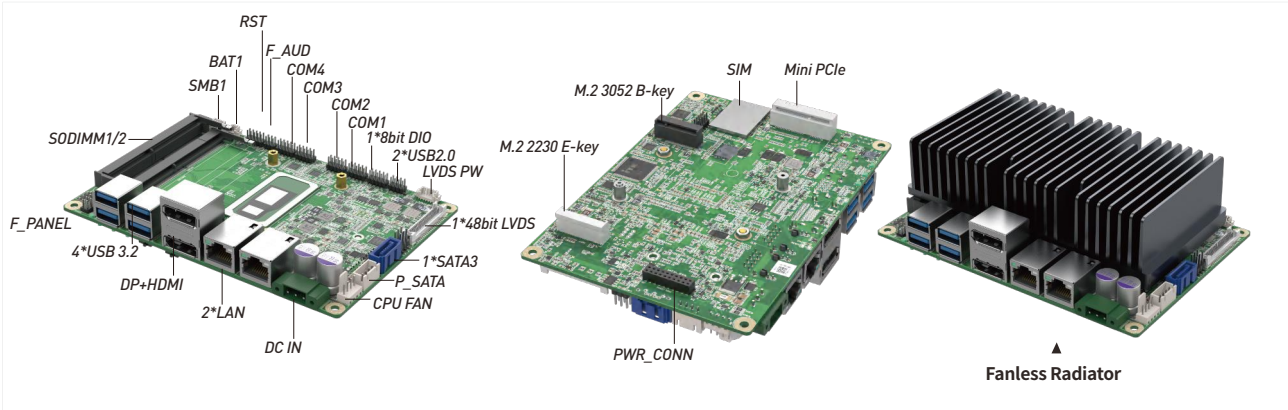
Product Overview

ECM-I913 is a 3.5-inch embedded mainboard equipped with Intel® Tiger Lake U Soc CPU. It has complete IO functions, flexible selection of power supply, active and passive radiators, and the compact size is suitable for installation in limited space scenarios. It is very suitable for AGV and AMR, medical inspection, machine vision, industrial control, digital city and smart security and other industries and fields.

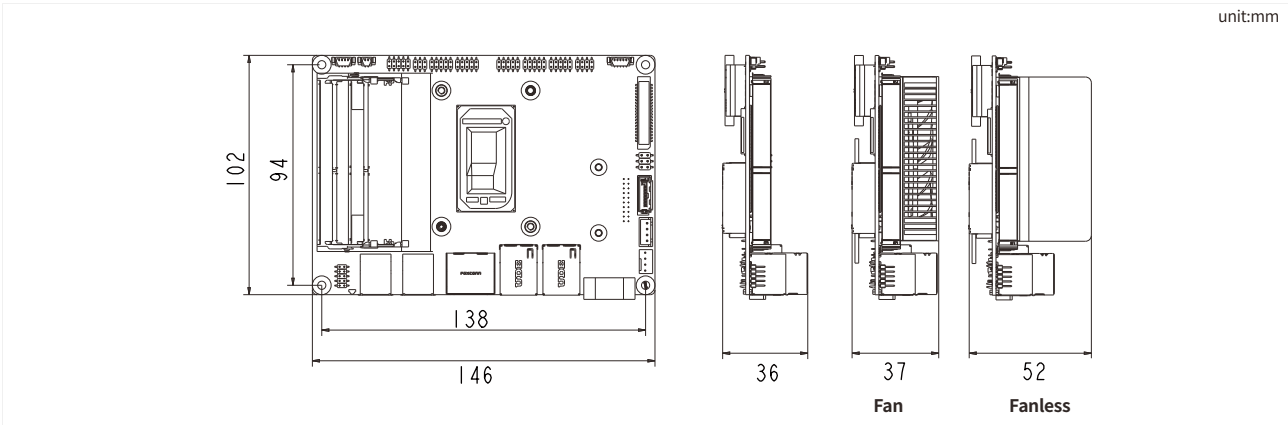
Product Parameters

System		Expansion	
CPU	Intel® Tiger lake U Soc CPU (core i3-1115G4/i5-1135G7/i7-1165G7, Celeron 6305),TDP 12W/15W/28W	Expansion	1*Mini PCIe(PCleX1),PCle module/mSATA; 1*M.2 2230 E-key(USB2.0/PCleX1),WiFi/BT 5.0, or 1*M.2 3052 B-key(USB2.0/PCleX1+SIM),4G LTE/5G NR
RAM	2*DDR4 SODIMM,3200MHz, 64GB max.	Power	DC 12V; Optional OFX-075 75W,DC 9-36V; 45.36W (i7-1165 G7/4G DDR4/128G SSD)
Graphics	Intel UHD Graphics or X* Graphics , Supports Intel DL boost,DirectX-12.1, OpenGL 4.6 and OpenCL 3.0, HDMI:4096*2304@60Hz, DP:7680*4320@60Hz, LVDS:1920*1200@60Hz,3 independent display		
I/O		Environment	
LAN	1*Intel I226V , 10M-2.5G 1*Intel®I219LM ,iAMT13.0	Dimension (W*H)	146*102mm(Height: radiator with fan 37mm, fanless radiator 52mm, PCB:1.6mm)
USB	4*USB3.2 Gen2(10Gbps), 2*USB2.0(pin)	Operating Temp	0~60°C
Display	1*HDMI+1*DP+1*LVDS(pin)	Storage Temp	-40°C~85°C
Audio	1*Line in+1*Line out+1*Mic,Realtek ALC897	Storage Temp	10~95%@40°C, No-condensation
COM& Others	2* RS232/422/485(pin),2*RS232(pin)	Certificate/EMC	CE/FCC Class A
DIO	8-bit DIO,programmable TTL	OS	Windows 11*IoT enterprise, Windows 10*IoT enterprise,Android,-SUSE,Ubuntu,Wind River,Red Hat*Enterprise,Wind River VxWorks*7,Yocto
Storage			
Storage	1*SATA 3.0 HDD/SSD,6 Gbps,1*mSATA(Optional)		
Others			
Switch	1*F Panel(PW SW, Reset); 1*AT/ATX; 1*Clear CMOS; 1* USB 5V/SB		
LED	1*PowerLED; 1*HDD LED; 3*CPU Temp LED(Red is alarm, Yellow is high temp, Green is normal temp)		
WDT	programmable via software 1 to 255 second		

I/O View



Dimensions



Ordering Information

Model	Processor	Specifications	*Optional	
ECM-I913/S001	Intel® Core I3-1115G4	2*SODIMM DDR4, 2*LAN,4*USB3.2, 2*USB2.0,1*M.2 2230 E-Key,1*M.2 3052 B-Key(B or E-Key), 1* Full size mini PCIe/mSATA,4*COM, 1*8-bit DIO, 1*DP,1*HDMI,1*LVDS, 1*SM BUS, 1*Audio, 1*SATA3.0, DC 12V	Radiator with Fan	Pure copper+Aluminium alloy heat radiator,four-wire intelligent temperature control ball-bearing fan,silent ultra-thin design,fan cable 100mm, size:137*70*24.2mm (After installation, the total thickness of the motherboard is 37mm)
ECM-I913/S002	Intel® Core I5-1135G7			
ECM-I913/S003	Intel® Core I7-1165G7			
ECM-I913/S004	Intel® Celeron 6305U			
ECM-I913/S001-WP	Intel® Core I3-1115G4	2*SODIMM DDR4, 2*LAN,4*USB3.2, 2*USB2.0,1*M.2 2230 E-Key,1*M.2 3052 B-Key(B or E-Key), 1* Full size mini PCIe/mSATA,4*COM, 1*8-bit DIO, 1*DP,1*HDMI,1*LVDS, 1*SM BUS, 1*Audio, 1*SATA3.0, DC 9-36V	Fanless Radiator	Pure copper+Aluminium alloy heat radiator,size: 137*70*39.3mm(After installation, the total thickness of the motherboard is 52mm)
ECM-I913/S002-WP	Intel® Core I5-1135G7			
ECM-I913/S003-WP	Intel® Core I7-1165G7			
ECM-I913/S004-WP	Intel® Celeron 6305U			

Accessories

Standard			*Optional	
Serial ports cable	DB9 male,300mm	4	DIO cable	DB9 male,300mm
SATA cable	(7+15)pin SATA power supply +SATA data cable,300mm	1	AuDIO cable	Three in a row (Line-out/Line-in/Mic) 3.5mm phone jack, 300mm
Screw jumper	Two M2 screws +Two jumper caps (spare)	1	USB2.0 cable	Two in a row Type A,300mm
DC-IN pin	3.81 pitch 3pin phoenix plug with earhole	1		

PITX-I915

Intel® Tiger lake U Soc CPU, Onboard memory, 1*HDMI, 1*eDP, 2*LAN, 2*USB3.2, 2*COM, 1*M.2 E-key, 1*mSATA, 1*SATA3.0, DC 12V

Key Specification

- Intel® Tiger lake Soc CPU
- LPDDR4x Onboard memory, up to 16GB
- 1*HDMI, 1*eDP, 2 independent displays
- 2*LAN, 2*USB3.2, 2*USB2.0, 2*COM
- 1*M.2 2230 E-key supports WIFI/BT
- 1*full size Mini PCIe, supports PCIe modules
- 1*SATA3.0 HDD/SSD, 1*mSATA(Opt.) for storage
- Active or passive, two different thickness radiator selection
- DC IN12V



Product Overview

PITX-I915 is a 2.5-inch embedded mainboard equipped with Intel® Tiger Lake U Soc CPU. It has complete IO functions, mini size, active and passive radiators, and the compact size is suitable for installation in limited space scenarios. It is very suitable for AGV and AMR, medical inspection, machine vision, industrial control, digital city and smart security and other industries and fields.

Product Parameters

System

CPU	Intel® Tiger lake U Soc CPU (core i3-1115G4/i5-1135G7/i7-1165G7, Celeron 6305E), TDP 12W/15W/28W
RAM	Onboard LPDDR4X, 16GB max.
Graphics	Intel UHD Graphics /Iris® X* Graphics , Supports Intel DL boost, DirectX12.1,OpenGL 4.6 and OpenCL 3.0, 2 independent displays; HDMI:4096*2304@60Hz, eDP:4096*2304@60Hz

I/O

LAN	1*Intel I210AT , 10M-1000M 1*Intel®I219LM ,10M-1000M
USB	2*USB3.2, 2*USB2.0
Display	1*HDMI+1*eDP
Audio	1*Line in+1*Line out+1*Mic, Realtek ALC897
COM& Others	1* RS232/422/485, 1*RS232
DIO	/

Storage

Storage	1*SATA 3.0 HDD/SSD, 6 Gbps, 1*mSATA (Opt.)
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Others

Switch	1*F Panel(PW SW, Reset); 1*AT/ATX; 1*Clear CMOS; 1* USB 5V/SB
LED	1*Power LED; 1*HDD LED
WDT	programmable via software 1 to 255 second

Expansion

Expansion	1*Mini PCIe(PCleX1),PCle module/mSATA; 1*M.2 2230 E-key(USB2.0/PCleX1), WiFi5/BT 5.0
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Power

Power& TDP	DC 12V; 39.208W (i7-1165G7 @2.8G)
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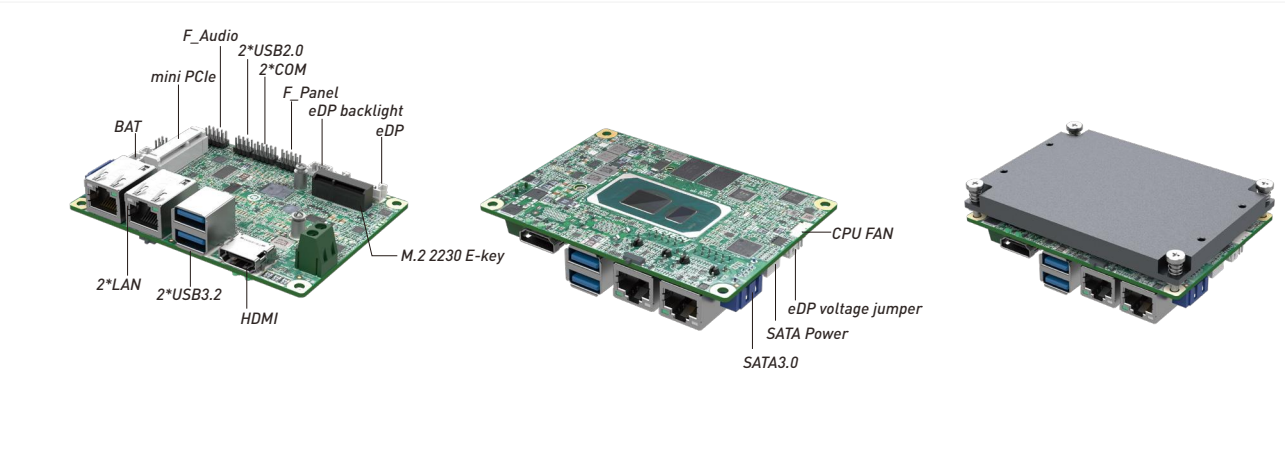
Environment

Dimension (W*H)	100*72mm
Operating Temp	0~60°C
Storage Temp	-40°C~85°C
Storage Temp	10~95%@40°C, Non-condensing
Certificate/EMC	CE/FCC Class A

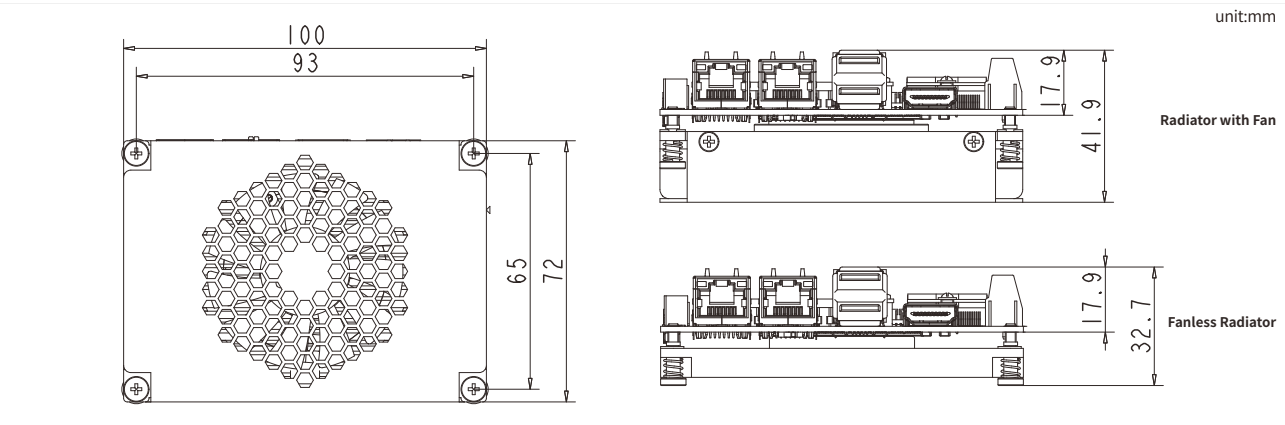
OS

Windows 11*IoT enterprise, Windows 10*IoT enterprise, Android, SUSE, Ubuntu, Wind River, Red Hat*Enterprise, Wind River VxWorks*7, Yocto

I/O View



Dimensions



Ordering Information

Model	Processor	Onboard memory	Specifications	*Optional	
PITX-I915/S001	Intel® Core I3-1115G4	8G LPDDR4X	2*LAN, 2*USB3.2, 2*USB2.0, 1*M.2 2230 E-Key, 1* Full size mini PCIe/mSATA, 2*COM, 1*HDMI, 1*eDP, 1*Audio, 1*SATA3.0, DC 12V	Radiator with Fan	Pure copper+Aluminium alloy heat radiator, four-wire intelligent temperature control ball-bearing fan, silent ultra-thin design, fan cable 85mm, size: 100*72*17.9mm (After installation, the total thickness of the motherboard is 41.9mm)
PITX-I915/S002	Intel® Core I5-1135G7	8G LPDDR4X		Fanless Radiator	Pure copper+Aluminium alloy heat radiator, size: 100*72*17.9mm (After installation, the total thickness of the motherboard is 32.7mm)
PITX-I915/S003	Intel® Core I7-1165G7	16G LPDDR4X			
PITX-I915/S004	Intel® Celeron 6305E	4G LPDDR4X			

Accessaries

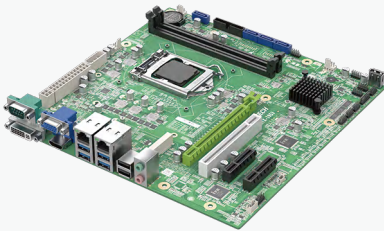
Standard			*Optional	
Serial ports cable	DB9 male,300mm	4	AuDIO cable	Three in a row (Line-out/Line-in/Mic) 3.5mm phone jack, 300mm
SATA cable	(7+15)pin SATA power supply +SATA data cable,300mm	1	USB2.0 cable	Two in a row Type A,300mm
Screw jumper	Two M2 screws +Two jumper caps (spare)	1		

MATX-I953

Intel® Core™ i7/i5/i3/ Pentium/Celeron CPU, VGA/HDMI/DVI-D, Dual LAN, 4/8*USB 3.0, 5*USB 2.0, 6/12*COM, 4*PCIe/PCI, ATX power

Key Specification

- Intel H110 PCH, supports Intel 6/7th Gen. SKL/KBL-S Core i7 / i5 / i3
- /Pentium/Celeron LGA1151 CPU
- Dual - channel 2*DDR4 2133/2400MHz UDIMM, up to 32GB
- Intel 9th HD Graphic , VGA+HDMI/ VGA +DVI-D/ HDMI+ DVI-D,
- 1*I219LM and 1*I210AT/I211AT dual Gigabit network ports
- 4/8*USB3.0, 5*USB2.0, 6/12*COM, 8bit DIO,1*LPT
- 1*PCIeX16, 1*PCI, 2*PCIeX4(X1), a total of four slots, 1* full-size Mini PCIe
- 4*SATA3.0 6.0Gbps, 1*Line out&1*Mic, optional amplifier
- 24pin ATX +4pin 12V ATX power



Product Overview

MATX-I953 is an industrial motherboard powered by Intel H110 chipset supporting Intel 6/7th Gen Core i7 / i5 / i3 /Pentium/Celeron CPU, designed according to the standard Micro ATX motherboard specification. It is suitable for all 4U rack and wall-mounted rack on the market, very suitable for machine vision and data acquisition and other fields.

Product Parameters

System

CPU	Intel® 6th/7th Gen Core i7/i5/i3/ Pentium/Celeron LGA1151 CPU,H110 chipset,up to 91W
RAM	2*DDR4 Non-ECC UDIMM, 2400MHz,max 32GB
Graphics	Intel Gen. 9 HD Graphics, HEVC/H265 HW HD Codec; HDMI: 3840*2160@30Hz VGA: 1920*1200@60Hz DVI-D: 1920 x 1200 @ 60Hz

I/O

LAN	1*Intel® I210AT,10-1000M, 1*Intel® I219LM,10-1000M,WOL
USB	4*USB3.0,3*USB2.0,2*USB2.0(pin), 4*USB3.0(S002,2*5pin)
Display	1*HDMI + 1*DVI-D + 1*VGA
Audio	1*Line out+1*Mic,optional audio, 1* Amplifier(optional)
Serial Port& Others	2*RS232/422/485,4*RS232,optional added 6*RS232, 1*PS/2 ,1*LPT, 1*LPC
DIO	8-bit DIO,programmable TTL

Storage

Storage	4*SATA 3.0 HDD/SSD(1*SATA with power,support SATADOM)
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Others

Control SW	F_PANEL(USB Power jumper, AT/ATX jumper, Clear CMOS jumper)
indicator	Power LED,hard disk LED
Watchdog timer	programmable via software 1 to 255 second

Expansion

Expansion	1*PCIe3.0X16(X16)+2*PCIe2.0X4(x1)+ 1* 32-bit PCI ; 1*MiniPCIe(PCIeX1)
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Power supply

Power supply& Consumption	24-Pin ATX/8-Pin ATX 12V; 125W (I7-7700K CPU/16G DDR4/128G SSD
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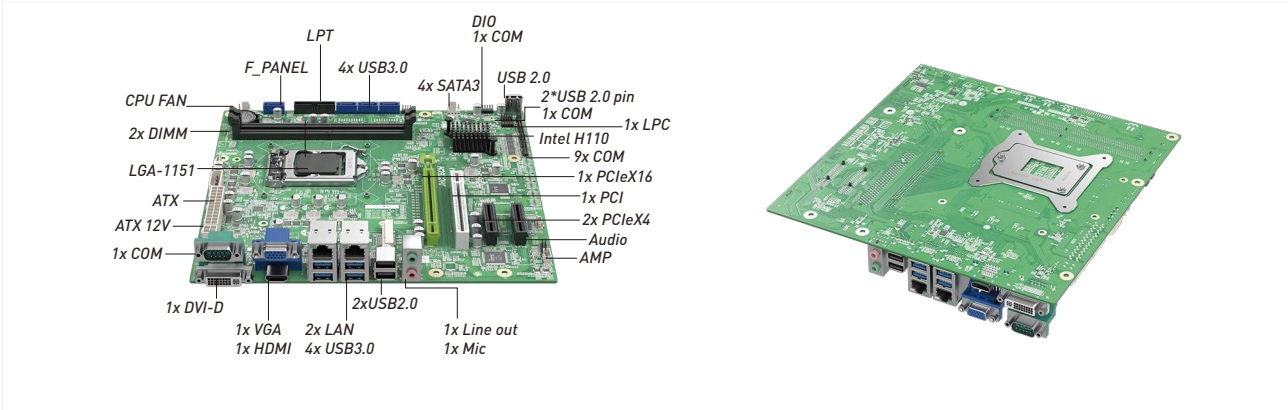
Environment

Dimension(W*L*H)	244*244*34.9mm; PCB:1.6mm
Operating temp	0~60°C
Storage temp	-40°C~85°C
Storage humidity	10~95%@40°C, no condensation
Certificate/EMC	CE/FCC Class A

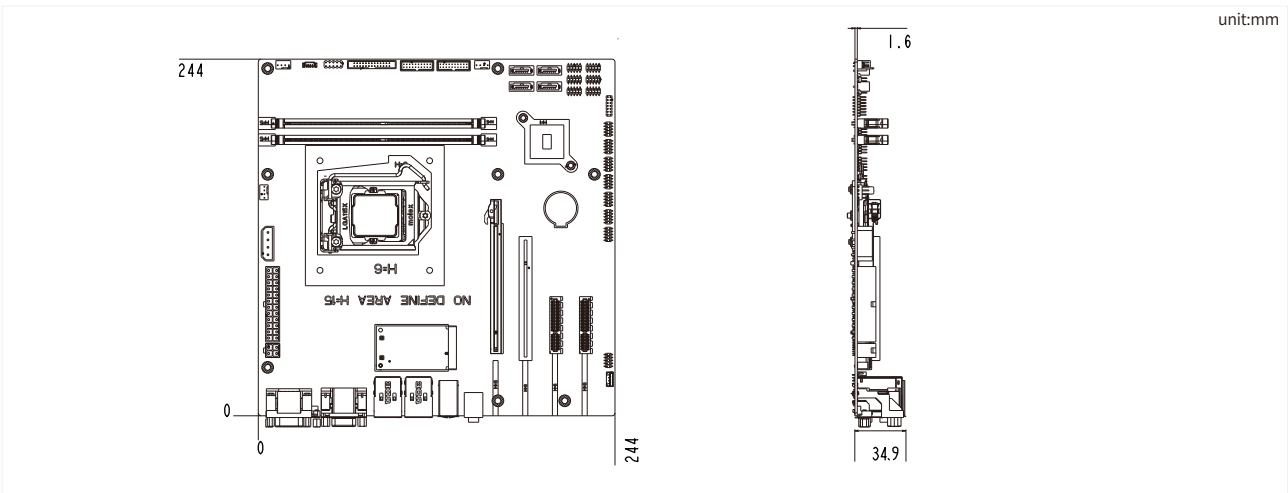
OS

OS	Windows 7, Windows 10, Linux Fedora Ubuntu (Note:The 7th Intel® Kabylake CPU do not support Windows 7 32bit)
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I/O View



Dimensions



Ordering Information

Model	Processor	Specifications	
MATX-I953/S001	Intel H110+ SKL/KAL-S LGA1151 CPU	4*USB3.0 6*COM	2*LAN, 5*USB2.0, 8bitGPIO,1*PCIe X16, 2*PCIe X4(x 1 signal), 1*PCI, 1*Mini PCIe, 1*HDMI, 1*VGA, 1*DVI-D, 1*Line out and 1*Mic, optional Amplifier,4*SATA3,1*LPT, 24-pin ATX/4-pin ATX provides 12V power supply
MATX-I953/S002		8*USB3.0 12*COM	2*LAN, 5*USB2.0, 8bitGPIO,1*PCIe X16, 2*PCIe X4(x 1 signal), 1*PCI, 1*Mini PCIe, 1*HDMI, 1*VGA, 1*DVI-D, 1*Line out and 1*Mic, optional Amplifier,4*SATA3,1*LPT, 24-pin ATX/4-pin ATX provides 12V power supply

Accessories

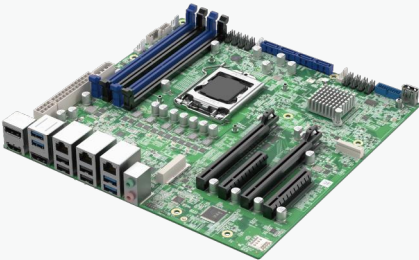
Standard		Amount	*Optional	
Serial ports cable	DB9 male, 300mm	4	DIO cable	DB9 male, 600mm
SATA cable	SATA 7pin data cable, 420mm	2	Audio cable	Three in a row(Line-out/Line-in/Mic) 3.5mm phone jack, 300mm
I/O block slice	Full IO opening, 0.5mm stainless steel	1	Serial ports cable	DB9 male, 300mm
Screw&jumper	2*M2 screws, 2*M2.25 screws+2*2.0& 2.5 jumper caps	1	USB2.0 cable	Two in a row Type A, 300mm
			USB3.0 cable	Two in a row Type A, 300mm
			Parallel ports cable	DB25 female, 300mm
			PS/2 cable	Two in a row 6pin S-female keyboard & mouse port, 300mm
			SATA cable	SATA 7pin data cable, 420mm
			CPU radiator1	LGA115X, TDP 35-65W wind-cooling radiator
			CPU radiator2	LGA115X, TDP 95W wind-cooling radiator

MATX-I961

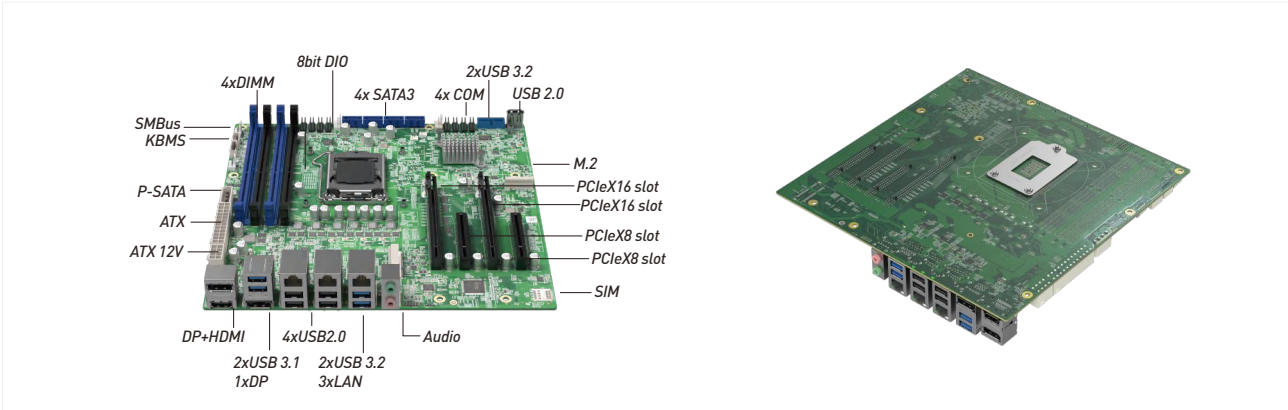
Intel® Coffee Lake-R LGA1151 CPU, M-ATX, HDMI, 2*DP, 3*LAN,4*COM,6*USB3.2, 7*USB2.0, 4*SATA3.0, Workstation-grade performance

Key Specification

- Intel® Xeon® E or 9th/8th-Gen Pentium/Celeron/Core i7/i5/i3
- Intel® Q370/C246 Chipset
- 4*DDR4 2666/2400MHz DIMM, Max. 128GB
- 2*DP, 1*HDMI, support 3 independent displays
- 3*LAN, 6*USB3.2 Gen2, 7*USB2.0, 4*COM
- 1*PCIeX16 or 2*PCIeX8+2*PCIeX4 expansion
- 1*Mini PCIe, with SIM card slot, support 4G/WIFI/GPS/GSM/BT
- 4*SATA3.0, 1*M.2 2280 M-Key (PCIe X4)
- Optional support TPM 2.0 security encryption, support AMT12.0, Intel® Vpro technology
- ATX Power (12V/5V/3.3V)



I/O View



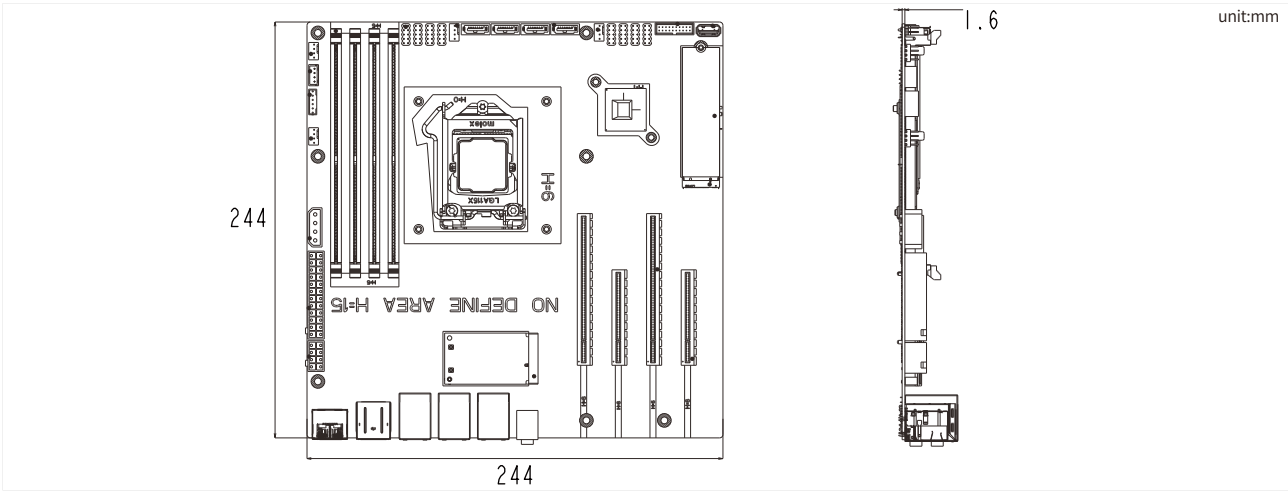
Product Overview

MATX-I961 is ESBC series embedded single board computer, equipped with Intel® Xeon® E or 9th/8th-Gen Pentium/Celeron/Core i7/i5/i3, up to 8 cores and 16 threads processor, supports 4G/WIFI/GPS/GSM/BT and other wireless functions, ATX Power power supply, complete functions, suitable for various embedded system application requirements.

Product Parameters

System		Expansion		
CPU	Intel® Xeon® E or 9th/8th-Gen Pentium/ Celeron/Core i7/i5/i3 LGA1151 processor	Expansion Port	1*Mini PCIe with SIM slot 2*PCIe X16 slot (1*PCIe X16/2*PCIe X8) 2*PCIe X8 slot (Gen3, 2*PCIe X4)	
RAM	4*DDR4 2666/2400MHz, 128GB max.	Power Supply	Input voltage 24-pin ATX/8-pin ATX 12V, Power consumption 374W (I7-8700, 16GB DDR, 2*4TB, GTX-1660)	
Graphics	Intel UHD Graphics, Supports DirectX11.1, OpenGL 5.0 and OpenCL 2.1 DP:4096*2304@60Hz, HDMI:3840*2160@30Hz,Support 3 independent displays			
I/O		Environment		
LAN	2*Intel I210AT PCIe,10/100/1000 Mbps; 1*Intel I219LM PCIe,10/100/1000 Mbps,Support Intel vPro	Dimension (L*W*H)	244*244*30.8mm,PCB: 1.6mm	
USB	4*USB3.2 Gen2, 4*USB2.0, 2*USB3.2 Gen2(pin),1*USB2.0(build-in)	Operating temp	0~60°C	
Display	2*DP+1*HDMI	Storage temp	- 40°C~85°C	
Audio	1*Line out+1*Mic, Optional audio	Storage humidity	10~90%@40°C, No condensation	
Serial port &Others	4*RS232(pin),1*PS/2(pin), 1*SM bus(pin)	Certification/ EMC	CE/FCC Class A	
DIO	8-bit DIO,Programmable TTL	OS		
Storage		OS	Windows 10 Enterprise & IOT Enterprise Windows Server 2016 (Intel® Xeon® E) Ubuntu,SuSe,Redhat Enterprise 1,2 Wind River VxWorks 7	
storage	4*SATA3, HDD/SSD support RAID 0/1/5/10 1*M.2 2280 M-key(PCIe X4), Support NVMe storage			
Others				
Control switch	Power SW, Reset			
Indicator	1*power indicator light; 1*hard disk indicator light; 3*CPU temperature indicator light (Red is alarm, Yellow is high temperature, Green is normal temperature)			
Watchdog timer	Watchdog timeout programmable via software 1 to 255 second			
TPM	Optional support TPM2.0			

Dimensions



Ordering Information

Model	Processor	Specifications
MATX-I961/S001	Intel® Q370+Coffelake-R LGA1151 CPU	3*LAN, 6*USB3.1, 7*USB2.0, 4*COM, 1*Mini PCIe, 1*M.2 2280 M-Key, 8bit DIO, 1*PCIe X16(or 2*PCIeX8), 2*PCIe X4, 1*HDMI, 2*DP, 1*Line out+1*Mic, 1*PS/2, 4*SATA3, 24-pin ATX/8-pin ATX 12V
MATX-I961/S002	Intel® C246+Coffelake-R LGA1151-R CPU	
ECB-246+ECD-2460	Mini PCIe dual Intel I210AT Gigabit Ethernet port module, 2*RJ45 interface, with cable	
ECB-260 CAN module	Mini PCIe dual isolation CAN module, 2*DB9, with cable	

Accessaries

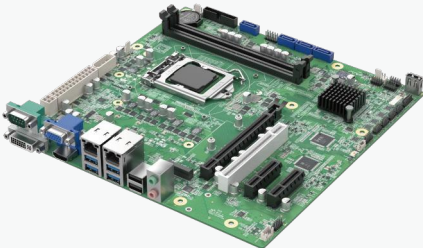
Standard		Amount	*Optional	
Serial ports cable	DB9 male, 300mm	4	DIO cable	DB9 male, 600mm
SATA cable	SATA 7pin data cable, 420mm	2	Audio cable	Three in a row(Line-out/Line-in/Mic) 3.5mm phone jack, 300mm
I/O block slice	Full IO opening, 0.5mm stainless steel	1	Serial ports cable	DB9 male, 300mm
Screw&jumper	2*M2 screws, 2*M2.25 screws+2*2.0& 2.5 jumper caps	1	USB2.0 cable	Two in a row Type A, 300mm
			USB3.0 cable	Two in a row Type A, 300mm
			Parallel ports cable	DB25 female, 300mm
			PS/2 cable	Two in a row 6pin S-female keyboard & mouse port, 300mm
			SATA cable	SATA 7pin data cable, 420mm
			CPU radiator1	LGA115X, TDP 35-65W wind-cooling radiator
			CPU radiator2	LGA115X, TDP 95W wind-cooling radiator

MATX-I964

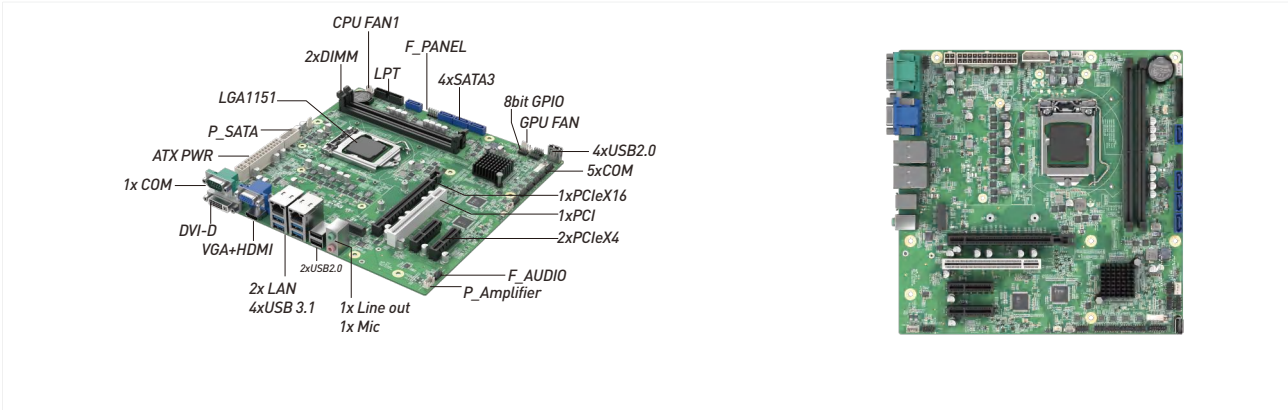
Intel 8/9th LGA1151 CPU, Dual-channel DDR4, VGA/HDMI/DVI-D,Dual LAN,4*USB 3.1, 6*USB 2.0, 6*COM, 4*PCIe/PCI, ATX power

Key Specification

- Intel H310 PCH,supports Intel 8/9th Gen. Coffee lake-S Core i9 / i7 / i5 / i3
- /Pentium/Celeron LGA1151 CPU
- Dual - channel DDR4 2666MHz UDIMM, up to 64GB
- VGA+HDMI/ VGA +DVI-D/ HDMI +DVI-D dual independent displays
- 1*I219LM and 1*I226V dual Gigabit network ports
- 4*USB3.1, 6*USB2.0, 6*COM, 1*8bit GPIO,1*LPT
- 1*PCIe X16, 1*PCI, 2*PCIe X4, a total of four slots;
- 4*SATA3.0 6.0Gbps, 1*M.2 2242/2280 M-Key, Nvme
- Realtek ALC897 HD audio chip, support 5.1 channels, optional support amplifier
- 24pin ATX +4pin 12V ATX power



I/O View



Product Overview

MATX-I964 is an industrial motherboard powered by Intel H310 chipset, supporting Intel 8/9th Gen Core i9 / i7 / i5 / i3 /Pentium/Celeron CPU, designed according to the standard Micro ATX motherboard specification. It is suitable for all 4U rack and wall-mounted rack on the market, very suitable for machine vision, data acquisition and other fields.

Product Parameters

System

CPU	Intel 8/9th Gen. Core i9/i7/i5/i3/Pentium/Celeron CPU, LGA 1151 Socket,可max.TDP95W, Intel H310 PCH
RAM	2*DDR4 Non-ECC UDIMM,2666MHz, 64GB max.
Graphics	Intel 9th HD Graphic, AVC/VC1/MPEG2/HEVC/VP8/JPEG.HW, Direct3D 11.2,OpenGL 5.0, OpenCL 2.1, HDMI:4096*2304@24Hz, VGA:1920*1200@60Hz, DVI-D:1920*1200@60Hz, 2 independent Display

I/O

LAN	1*Intel® I226V, 10M-2.5G, WOLRemote 1*Intel® I219LM, 10-1000M, WOLRemote
USB	4*USB3.1 Gen2(5Gbps), 2*USB2.0(5V System or 5V SB); 4*USB2.0(pin)
Display	1*HDMI+1*VGA+1*DVI-D
Audio	1*Line out+1*Mic,Realtek ALC897,Optional 2*3W Amplifier
COM& Others	1*RS232/422/485(DB9), 1*RS232/422/485(pin)4*RS232(pin), 1*LPC, 1*PS/2(pin), 1*SM bus(pin)
DIO	8-bit DIO,programmable TTL

Storage

Storage	4*SATA3; 1*M.2 2242/2280 M-key(PCIe X2), NVMe Storage
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Others

Switch	F_PANEL(Power SW, Reset), Clear CMOS, AT/ATX, USB Power
LED	1*PowerLED; 1*HDD LED; 3*CPU Temp LED(Red is alarm, Yellow is high temp, Green is normal temp)
WDT	programmable via software 1 to 255 second

Expansion

Expansion	1*PCIe3.0 X16(X16) + 2*PCIe2.0 X4 (X1)+1*32-bit PCI; 1*M.2 2242/2280 M-Key(PCIe2.0 X2)
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Power

Power& TDP	24-pin ATX + 4-pin 12V, TDP: 224W (I9-9900K/16G DDR4/128G SSD)
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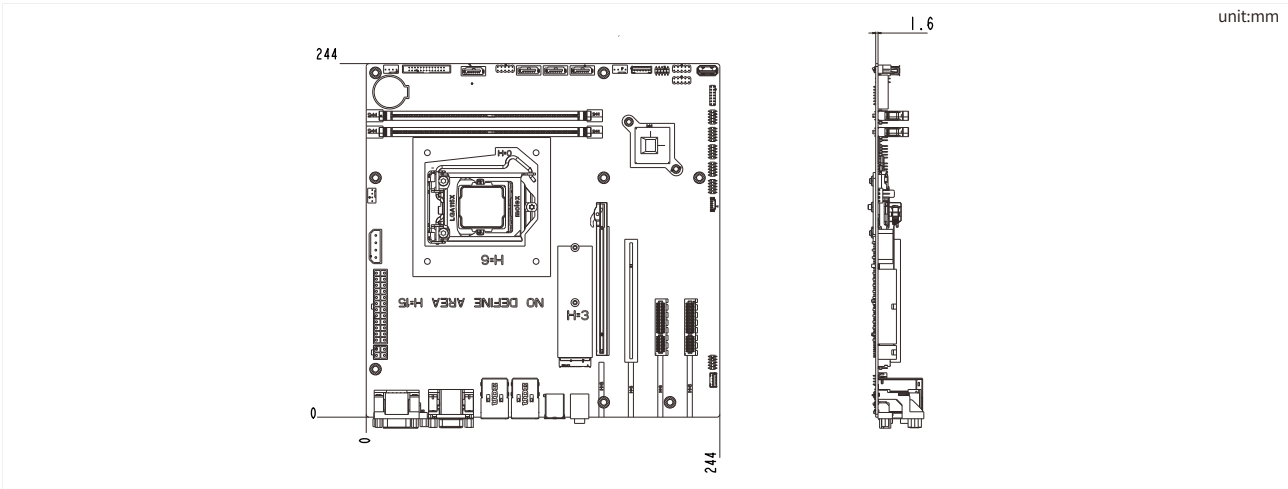
Environment

Dimension(W*H)	244*244mm(Top Side:33.2mm;PCB:1.6mm)
Operating Temp	0~60°C
Storage Temp	- 40°C~85°C
Storage Temp	10~95%@40°C, No-condensation
Certificate/EMC	CE/FCC Class A

OS

Windows7, Windows* 10 Enterprise & IOT Enterprise (64 bit)(CFL-R), Windows* Server 2016 (Intel® Xeon® E) Ubuntu*, SuSe*, Redhat Enterprise* 1,2 (Kernel 4.14) (CFL-R) Wind River* , VxWorks* 7 (CFL-R)

Dimensions



Ordering Information

Model	Processor	Specifications
MATX-I964/S001	Intel® H310+Coffee lake-S LGA1151 CPU	2*LAN, 4*USB3.1, 6*USB2.0, 6*COM, 1*8 bit GPIO,1*PCIe x16, 2*PCIe X4(X1), 1*PCI, 1*M.2 M-Key, 1*HDMI, 1*VGA, 1*DVI-D, 1*Line out and 1*Mic, optional Amplifier, 4*SATA3(1*SATA DOM), 1*LPT, 1*PS2, 24-pin ATX/4-pin ATX provides 12V power supply

Accessories

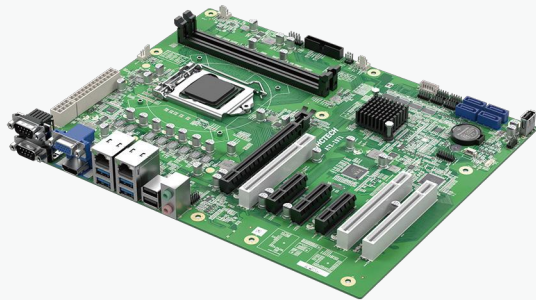
Standard			*Optional	
Serial ports cable	DB9 male,300mm	4	DIO cable	DB9 male,300mm
SATA cable	SATA 7pin data cable,420mm	2	AuDIO cable	Three in a row (Line-out/Line-in/Mic) 3.5mm phone jack, 300mm
I/O block slice	Full IO opening, 0.5mm stainless steel	1	Parallel ports cable	DB25 female,300mm
Screw jumper	Two M2 screws +Two jumper caps (spare)	1	USB2.0 cable	Two in a row Type A,300mm
			PS/2 cable	Two in a row 6pin S-female,300mm
			CPUradiator1	LGA115X, TDP 35-65W wind-cooling radiator
			CPUradiator2	LGA115X, TDP 95W wind-cooling radiator
			SATA cable	SATA 7pin data cable,420mm

ATX-I971

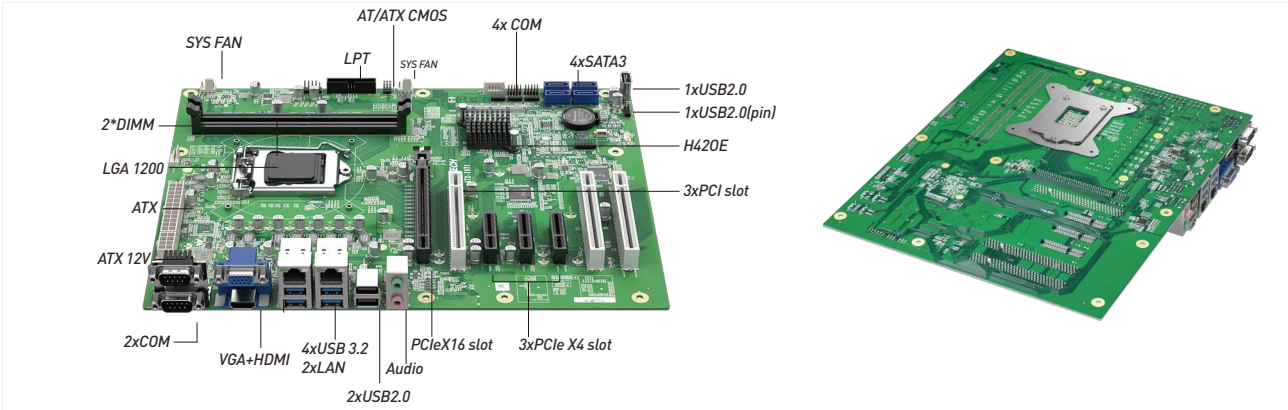
Intel® Comet lake-S CPU, H420E, 2*LAN, 1*VGA, 1*HDMI, 6*COM, 4*USB3.2, 5*USB2.0, 4*SATA3.0, 8-bit DIO, ATX power

Key Specification

- Intel® 10th Gen. Cometlake-S Core i9/i7/i5/i3/Pentium/Celeron CPU
- Intel H420E Chipset
- 2*DDR4 2400/2666/2933MHZ SODIMM, Max 64GB
- Intel UHD Graphic,1*HDMI+1*VGA,dual independent display
- 1*I226V,2.5G; 1*I219 LM,10/100/1000 Mbps
- 6*USB3.0, 2*USB2.0, 6*COM, 8-bit DIO
- 1*PCIe X16, 3*PCIeX4, 3*32-bit PCI
- 4*SATA3.0,6.0 Gbps; Audio,TPM 2.0(Opt.)
- 24pin ATX+8pin 12V ATX



I/O View



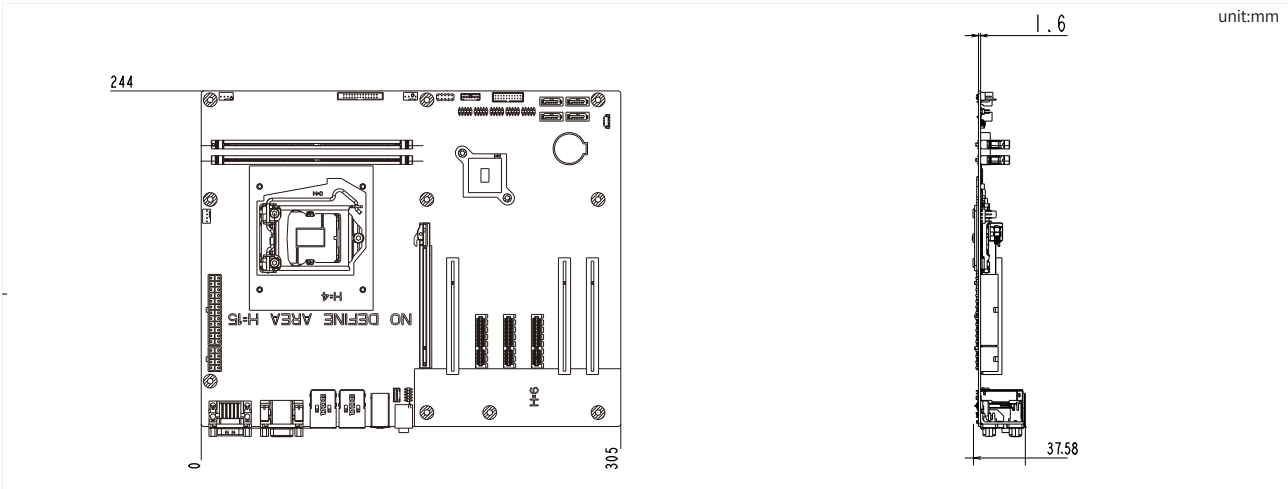
Product Overview

ATX-I971 is powered by Intel® 10th Gen Core i9/i7/i5/i3/Pentium/Celeron processor CPU with Intel H420E chipset. It is designed according to the standard ATX hole size, and is fully adapted to all rack and wall-mounted chassis on the market, and is very suitable for machine vision, CNC machinery, data acquisition and other fields.

Product Parameters

System		Expansion	
CPU	Intel 10th Gen. Cometlake-S Core i9/i7/i5/i3/Pentium/Celeron CPU,LGA 1200 Socket,up tp 125W	Expansion	1*PCIe3.0X16(X16)+ 3*PCIe3.0X4 (X2+X1+X1 or 1*PCIe3.0X4)+ 3* 32-bit PCI
RAM	2* DDR4 288-Pin Non-ECC UDIMM,2400/2666/2933MHz, 64GB max.		
Graphics	Intel UHD Graphics, Supports DirectX12, OpenGL 4.5 and OpenCL 2.1, HW Decode: AVC/H.264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H265, VP8, VP9 HW Encode: MPEG2, AVC/H264, JPEG, HEVC/H265, VP8, VP9 HDMI: 4096*2160@30Hz,VGA: 1920*1200@60Hz		
I/O		Power Supply	
LAN	1*Intel® I226V 10M-2.5G, WOL; 1*Intel® I219LM 10-1000M, WOL	Input voltage	24-Pin ATX/8-Pin ATX 12V, Max. out put power: 280W
USB	4*USB3.2, 2*USB2.0, 3*USB2.0(Build-in)		
Display	1*HDMI+1*VGA		
Audio	1*Line out+1*Mic, Optional Audio,1*Amplifier(optional)		
Serial port& Others	2* RS232/422/485, 4*RS232(pin), 1*LPT (pin), 1*PS/2(pin)		
DIO	8-bit DIO,Programmable TTL		
Storage		Environment	
storage	4*SATA3, HDD/SSD	Dimension (L*W*H)	305*244*37.58mm, PCB:1.6mm
		Operating temp	0~60°C
		Storage temp	-40°C~85°C
		Storage humidity	10~95%@40°C, No condensation
		Certification/ EMC	CE/FCC Class A
Others		OS	
Control switch	Power SW, Reset	OC	Windows 10 Enterprise & IOT Enterprise Windows Server 2016 (Intel® Xeon® E) Ubuntu, SuSe, Redhat Enterprise 1,2 Wind River VxWorks 7
LED	1*power LED; 1*HDD LED; 3*CPU temp LED (Red is alarm, Yellow is high temperature, Green is normal temperature)		
Watchdog timer	programmable via software 1 to 255 second		

Dimensions



Ordering Information

Model	Processor	Specifications
ATX-I971/S001	Intel® H420E+Cometlake-S LGA1151 CPU	2*LAN, 4*USB3.2, 5*USB2.0, 6*COM, 3*PCI, 8bit DIO, 1*LPT, 1*PCIe X16, 3*PCIe X4(X2+X1+X1 or 1*X4), 1*HDMI, 1*VGA, 1*Line out, 1*Mic, PS/2, 4*SATA3, Amplifier (Opt.) , 24-pin ATX/8-pin ATX 12V

Accessories

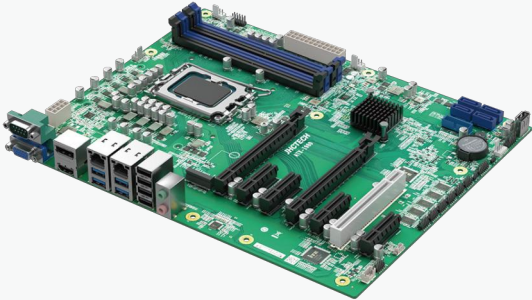
Standard			*Optional	
Serial ports cable	DB9 male,300mm	4	DIO cable	DB9 male,300mm
SATA cable	SATA 7pin data cable,420mm	2	AuDIO cable	Three in a row (Line-out/Line-in/Mic) 3.5mm phone jack, 300mm
I/O block slice	Full IO opening, 0.5mm stainless steel	1	Parallel ports cable	DB25 female,300mm
Screw jumper	Two M2 screws +Two jumper caps (spare)	1	USB2.0 cable	Two in a row Type A,300mm
			PS/2 cable	Two in a row 6pin S-female,300mm
			CPUradiator1	LGA115X, TDP 35-65W wind-cooling radiator
			CPUradiator2	LGA115X, TDP 95W wind-cooling radiator
			SATA cable	SATA 7pin data cable,420mm

ATX-I980

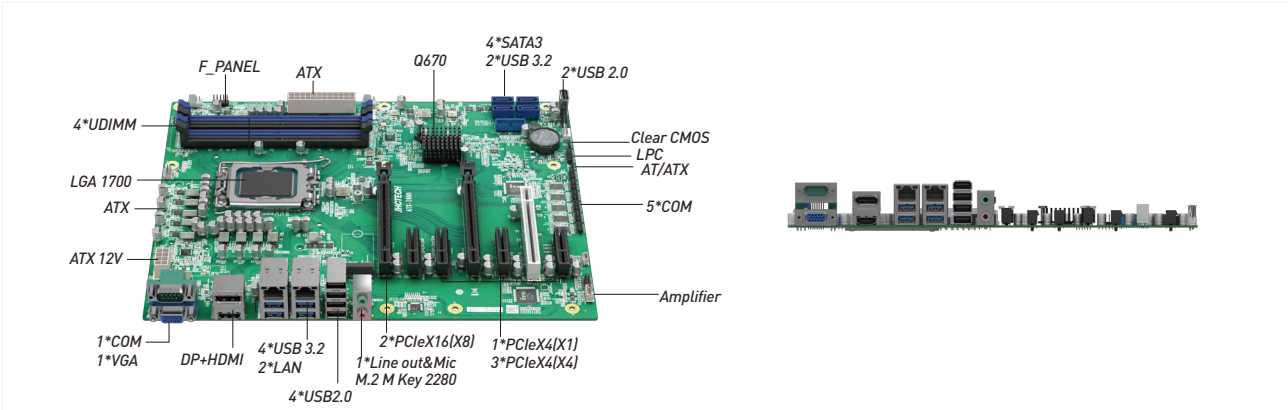
Intel® Q670 PCH+Alder lake-S CPU, 2*LAN,1*DP,1*HDMI,1*VGA,6*COM,6*USB3.2,7*USB2.0,4*SATA3.0,6*PCIe+1*PCI

Key Specification

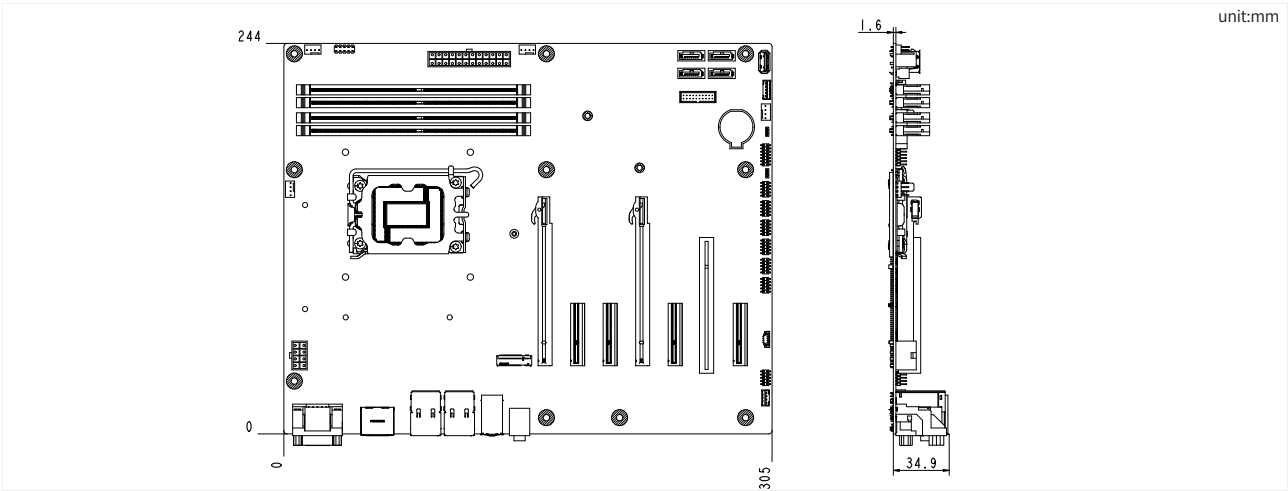
- Intel 12th/13th Gen. Alder lake-S/Raptor Lake-S Core i9/i7/i5/i3/Pentium/Celeron CPU, LGA1700 Socket
- Intel Q670, high-performance chipsets
- Dual - channel 4*DDR4 3200MHz UDIMM, up to 128GB
- Intel UHD Graphic, 1*DP+1*HDMI+1*VGA, three independent displays
- 1*I219LM and 1*I226V, dual Gigabit network ports
- 6*USB3.2,7*USB2.0,6*COM,8bit DIO
- 2*PCIeX16(X8),1*PCI, 4*PCIeX4 (3 for X4 , 1 for X1) a total of seven slots, 1*M.2 2280 M-key
- 4*SATA3.0 6.0Gbps, support Raid0/1/10/5
- 24pin ATX +8pin 12V ATX power



I/O View



Dimensions



Product Overview

ATX-I980 is an industrial motherboard powered by Intel Q670 chipset, supporting Intel®12th/13th Gen Core i9/i7/i5/i3/Pentium/Celeron CPU, designed according to the standard ATX motherboard specification and has seven PCIe and PCI extensions. It fits all 4U chassis and wall-mounted chassis on the market, and is suitable for machine vision, CNC machinery, digital medical and casino games and other fields.

Product Parameters

System

CPU	Intel 12th Gen. Alder lake-S Core i9/i7/i5/i3/Pentium/Celeron CPU,LGA 1700 Socket,Q670 PCH, 125W max.
RAM	4*288-pin Non-ECC UDIMM , dual channel DDR4 3200MHz, 128GB max.
Graphics	Intel Xe 700 UHD Graphics , DirectX 12, OpenGL 4.5, OpenCL 2.1; HW Decode: AVC/H.264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H265, VP8, VP9; HW Encode: MPEG2, AVC/H264, JPEG, HEVC/H265, VP8, VP9; DP:7680*4320@60Hz, HDMI:4096*2160@60Hz, VGA:1920*1200@60Hz

I/O

LAN	1*Intel® I226V, 10M-2.5G, WOLRemote 1*Intel® I219LM, 10-1000M,iAMT13.0, vPro
USB	4*USB3.2(10G), 4*USB2.0, 2*USB3.2(10G,pin), 3*USB2.0(pin)
Display	1*DP+1*HDMI+1*VGA
Audio	1*Line out+1*Mic,Realtek ALC897; 1*Amplifier(Optional)
COM& Others	1* RS232/422/485(DB9),5*COM(pin)
DIO	8-bit DIO

Storage

Storage	4*SATA3.0, RAID0/1/10/5;
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Others

Switch	Power SW, Reset,USB Power, AT/ATX, Clear CMOS
LED	Power LED,HDD LED
WDT	programmable via software 1 to 255 second
TPM	Optional TPM 2.0

Expansion

Expansion	2*PCIe5.0X16(X8)+2*PCIe4.0X4(X4)+2*PCIe3.0X4(X4+X1)+ 1* 32-bit PCI; 1*M.2 2280 M-Key (PCIe4.0X4)
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Power

Power& TDP	24-Pin ATX + 8-Pin ATX 12V; TDP: 110W (I7-12700K CPU/16G DDR4/128G SSD,non.AI Card)
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Environment

Dimension (W*L*H)	305*244*34.9mm; PCB:1.6mm
Operating Temp	0~60°C

Storage Temp	-40°C~85°C
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Storage Temp	10~95%@40°C, No-condensation
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Certificate/EMC	CE/FCC Class A
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OS

	Windows 10/11 IoT Enterprise (64-bit), Windows Server 2019, Ubuntu, SUSE, Redhat Enterprise, Wind River Linux,Yocto Project (64-bit),Wind River VxWorks 7
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Ordering Information

Model	Processor	Specifications
ATX-I980/S001	Intel® Q670+Alder lake-S LGA1700 CPU	2*LAN, 6*USB3.2, 7*USB2.0, 6*COM, 2*PCIe X16(X8), 4*PCIeX4(3*X4,1*X1), 1*PCI, 1*M.2 M-key, 1*HDMI, 1*DP, 1*VGA,1*Line out&1*Mic, Amplifier(Optional), 8bit DIO, 4*SATA3, 24-pin ATX+8-pin ATX 12V

Accessories

Standard	*Optional
Serial ports cable	DB9 male,300mm
SATA cable	SATA 7pin data cable,420mm
I/O block slice	Full IO opening, 0.5mm stainless steel
Screw jumper	Two M2 screws +Two jumper caps (spare)
DIO cable	DB9 male,600mm
AuDIO cable	Three in a row (Line-out/Line-in/Mic) 3.5mm phone jack, 300mm
Serial ports cable	DB9 male,300mm
USB2.0 cable	Two in a row Type A,300mm
USB3.0 cable	Two in a row Type A,300mm
CPUradiator1	LGA1700, TDP 65W wind-cooling radiator
CPUradiator2	LGA115X, TDP 125W wind-cooling radiator
SATA cable	SATA 7pin data cable,420mm

PADR-M101

Intel® Whiskey lake U CPU,2-CH DDR4,1*HDMI,1*DP,2*LAN,4*USB3.1,4*COM,1*M.2 E-key,1*F-Mini PCIe,DC 12V/DC9-36V

Key Specification

- SGCC box design, 4-line temperature-controlled fan silent heat dissipation
- Intel® Core i3/i5/i7/Celeron CPU
- 2-Ch DDR4 2400MHz SODIMM, 32GB max.
- 1*HDMI,1*DP,dual 4K Display
- 1*Line out,1*Mic,4*USB3.1
- 2* GbE LAN,4*COM ,8-bit DIO(Optional)
- 1*M.2,2230 E-Key, 1*Mini-PCIe(+SIM),Optional mSATA
- 1*2.5"SATA bay for storage
- DC 12V,or DC 9~36V



Product Overview

PADR-M101 is an embedded box computer, which adopts SGCC box structure design and has a built-in 4-wire debugging fan for silent cooling. Power by Intel® Whiskey lake U architecture, adopt 8th generation Intel® Core TM i3/i5/i7/Celeron U Series CPU, dual 4K display, rich IO interface. DC 12V or wide voltage DC 9-36V, small size, beautiful appearance, easy to manufacture, suitable for mobile portable terminals, advertising machines, AGV, medical analysis equipment and other application scenarios.

Product Parameters

System

CPU	Intel® Core i3/i5/i7/Celeron U
RAM	2*DDR4, 2400MHz, 32GB max.
Graphics	Intel® Gen. 9 UHD Graphics; HDMI:4096*2304@24Hz, DP:4096*2304@60Hz,2 independent Display
LAN	1*Intel I226V,10-1000M; 1*Intel I219LM, 10-1000M
USB	4*USB3.1 Gen1(5Gbps)
Display	1*DP+1*HDMI
Audio	1*Line out+1*Mic,Realtek ALC897
COM/others	2*RS232/422/485, 2*RS232;
DIO	1*8-bit DIO (Optional,DB9)

Storage

Storage	1*2.5" SATA,max.15mm thick HDD
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Others

LED	1*PowerLED, 1*HDD LED, 3*CPU Temp LED(Red is alarm, Yellow is high temp, Green is normal temp)
Switch	1*PowerSW
WDT	programmable via software 1 to 255 second

OS

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

Expansion	1*Mini PCIe(+SIM),4G LTE/Wifi/BT,BIOS to mSATA; 1*M.2 E-Key,Wifi/BT
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Power

Power& TDP	DC 12V, or DC 9~36V; 27.87W (I7-8565U, 16GB DDR , 1*4T SSD)
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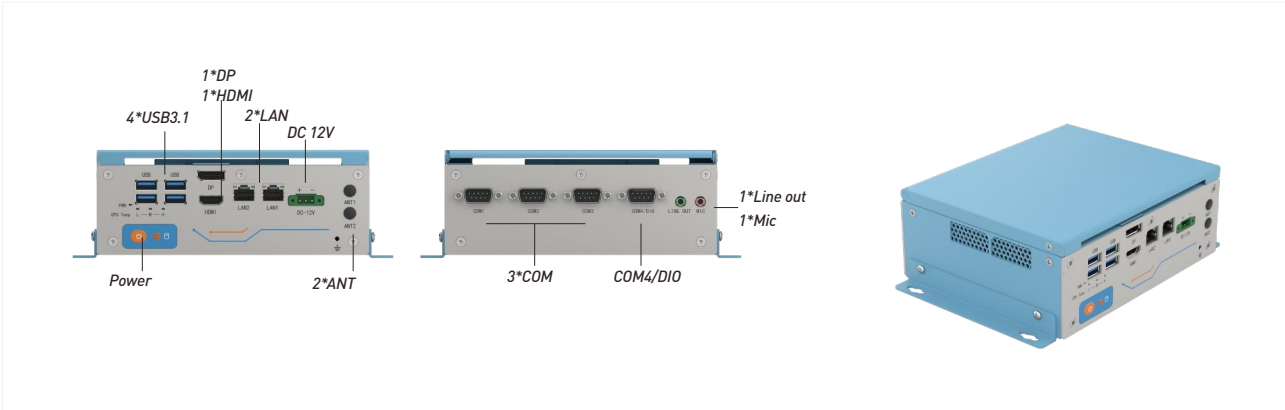
Mechanical

Structure	SGCC
Color	Silk Grey+Pastel Blue
Installation	desktop mounting
Dimension (W*H*D)	200*140*67.5mm
Weight	1.51KG

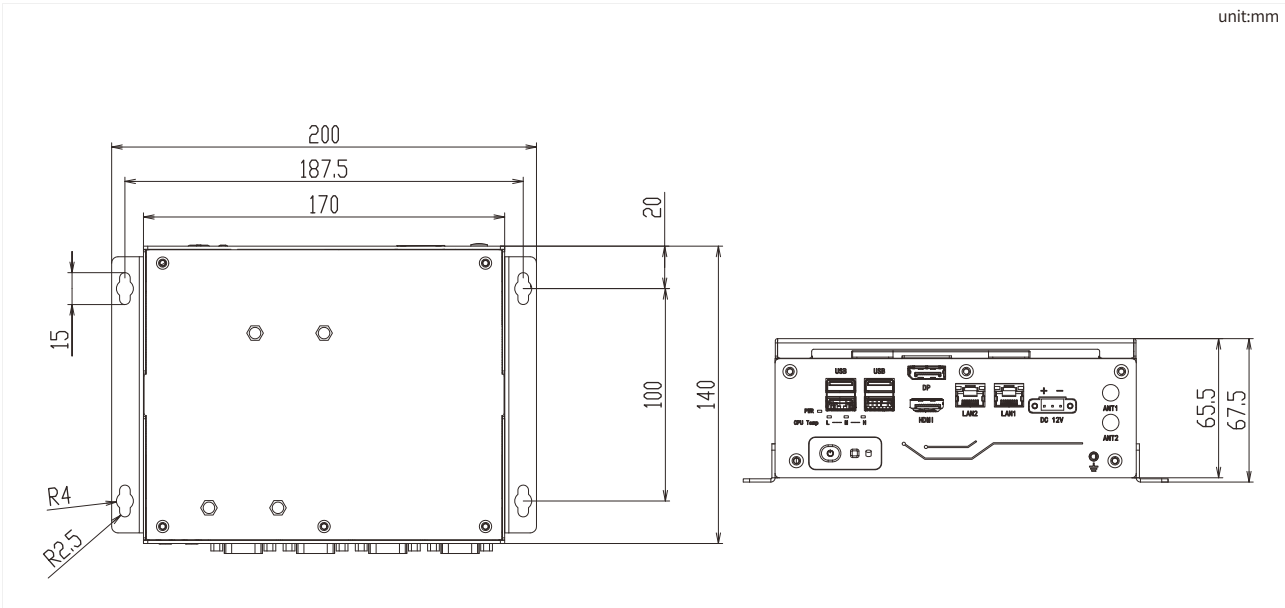
Environment

Operating Temp	0°C~50°C – Radiator with Fan,SSD;
Storage Temp	-40°C~85°C
Storage Temp	10~95%@40°C, No-condensation
Vibration	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)
Certificate	CE/FCC Class A

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*USB3.1,4*COM,8-bit DIO(Optional),1*M.2 E key, 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	
PADR-M101/S001-WP	Intel® Core I3-8145U	DDR4 2*SO-DIMM,1*HDMI,1*DP,1*Line out&1*Mic, 2*LAN,4*USB3.1,4*COM,8-bit DIO(Optional),1*M.2 E key, 1*Mini PCIe/mSATA,1*2.5"SATA,DC 9-36V
PADR-M101/S002-WP	Intel® Core I5-8265U	
PADR-M101/S003-WP	Intel® Core I7-8565U	
PADR-M101/S004-WP	Intel® Celeron 4305U	
PA-60DC12		AC/DC adapter, DC 12V/5A 60W+X standard power cable

PADR-M102-718

Intel® Elkhart lake CPU,1*DDR4,HDMI+DP,2*LAN,4*USB3.1,3/4*COM,1*DIO, 1*M.2 E-key / 1*M.2 B-key,1*mSATA,1*SATA3.0, DC 12V/DC 9-36V

Key Specification

- SGCC box design, 4-line temperature-controlled fan silent heat
- dissipation
- Intel® Elkhart lake Soc CPU
- 1*DDR4 3200MHz SODIMM, up to 32GB
- 1*HDMI,1*DP,supports dual 4K display
- 1*Line out&Mic,4*USB3.1
- 2* GbE LAN,3/4*COM,8-bit DIO
- 1*M.2 2230 E-Key /1*M.2 3052 B-key with a SIM card slot
- 1*2.5 "SATA bay + 1*mSATA for storage
- DC 12V or DC 9-36V



Product Overview

PADR-M102-718 is an embedded box computer, which adopts SGCC box structure design and has a built-in 4-wire debugging fan for silent cooling. Power by Intel ® Elkhart lake architecture, adopt Intel® Celeron series processor, dual 4K display, rich IO interface. DC 12V or wide voltage DC 9-36V, small size, beautiful appearance, easy to manufacture, suitable for mobile portable terminals, advertising machines, AGV, medical analysis equipment and other application scenarios.

Product Parameters

System

CPU	Intel® Elkhart lake SoC CPU: Celeron J6412 2.0-2.6GHz 4C4T/ Celeron N6210 1.2-2.6GHz 2C2T
RAM	1*260 pin DDR4, 3200MHz, 32GB max.
Graphics	Intel® Gen. 10 UHD Graphics; HDMI: 4096*2304@60Hz, DP: 4096*2160@60Hz, 2 independent Display
LAN	2*Realtek 8111H, 10-1000M, WOL
USB	4*USB3.1(5Gbps)
Display	1*DP+1*HDMI
Audio	1*Line out+1*Mic, Realtek ALC897
COM/others	2*RS232/422/485, 1*RS232;
DIO	1*8-bit DIO (Optional RS232)

Storage

Storage	1*2.5" SATA, max. 15mm thick HDD; 1*mSATA
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Others

LED	1*PowerLED, 1*HDD LED, 3*CPU Temp LED(Red is alarm, Yellow is high temp, Green is normal temp)
Switch	1*PowerSW
WDT	programmable via software 1 to 255 second

OS

OS	Windows 10/Windows 11 64 bit, SUSE, Ubuntu, Wind River, Linux
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Expansion

Expansion	1*M.2 2230 E-Key(PCIeX1/USB2.0), Wifi5/BT5.0, or 1*M.2 3052 B-Key(+SIM), 4G LTE/5G NR
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Power

Power& TDP	DC 12V(3-pin) or DC 9~36V; TDP: TBD
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Mechanical

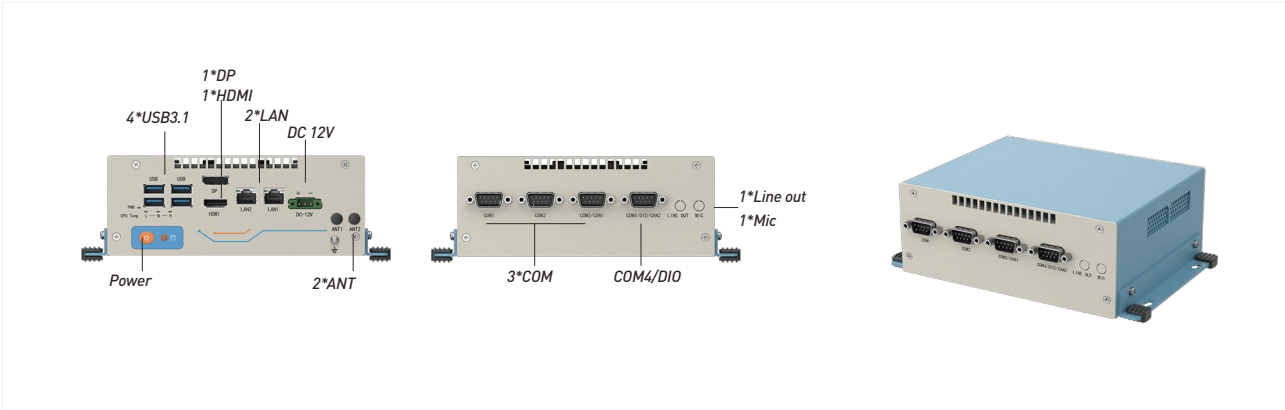
Structure	SGCC
Color	Silk Grey+Pastel Blue
Installation	desktop mounting
Dimension (W*H*D)	204*148*70mm
Weight	1.55KG

Environment

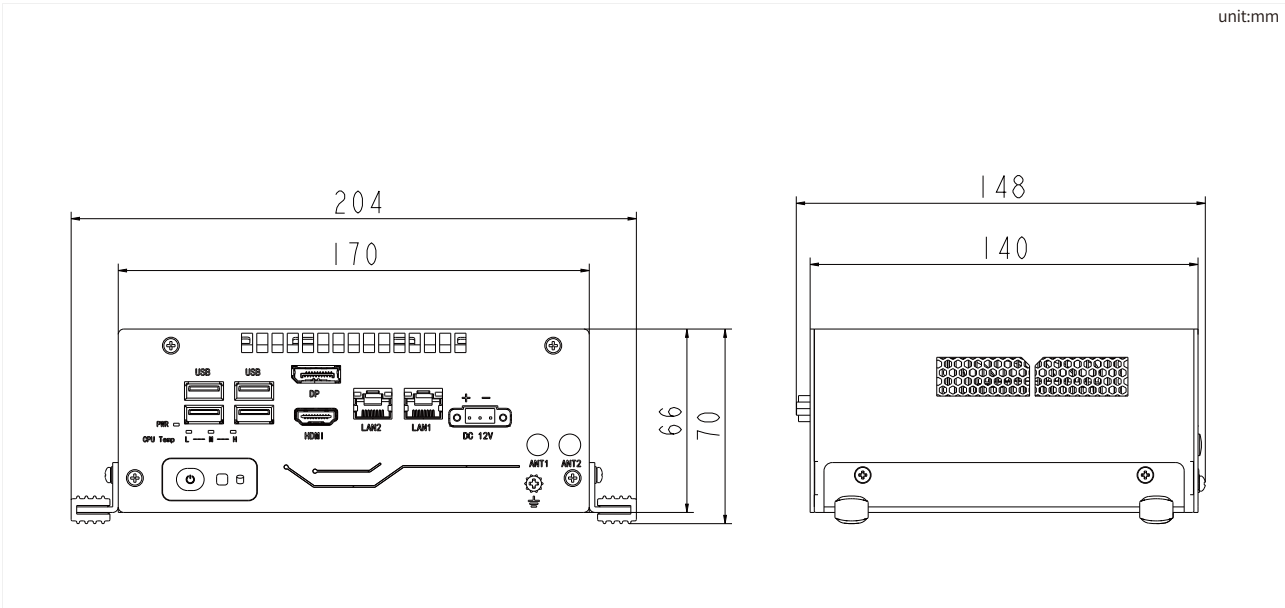
Operating Temp	0°C~50°C – Radiator with Fan, SSD;
Storage Temp	-40°C~85°C
Storage Temp	10~95%@40°C, No-condensation
Vibration	5 grms/5~500Hz/random/operation(SSD); 1 grms/5~500Hz/random/operation(HDD)
Shock	50g peak acceleration(duration 11ms, SSD); 20g peak acceleration(duration 11ms, HDD)

Certificate/EMC CE/FCC Class A

I/O View



Dimensions



Ordering Information

Model	Processor	Specifications
PADR-M102-718/S001	Intel® Celeron J6412	1*DDR4 SO-DIMM, 1*HDMI, 1*DP, 1*Line out&Mic, 2*LAN, 4*USB3.1, 3/4*COM, 8-bit DIO, 1*M.2 E-key/1*M.2 B-key(B or E-Key), 1*mSATA, 1*2.5"SATA, DC 12V
PADR-M102-718/S002	Intel® Celeron N6210	
PADR-M102-718/S001-WP	Intel® Celeron J6412	1*DDR4 SO-DIMM, 1*HDMI, 1*DP, 1*Line out&Mic, 2*LAN, 4*USB3.1, 3/4*COM, 8-bit DIO, 1*M.2 E-key/1*M.2 B-key(B or E-Key), 1*mSATA, 1*2.5"SATA, DC 9-36V
PADR-M102-718/S002-WP	Intel® Celeron N6210	
PA-60DC12		AC/DC adapter, DC 12V/5A 60W+X standard power cable

PADR-M102-910

Intel® Whiskey lake U CPU,2-CH DDR4,HDMI+DP,2*LAN,4*USB3.0,3/4*COM,1*M.2 E-key,1*Mini PCIe,DC 12V/DC 9-36V

Key Specification

- SGCC box design, 4-line temperature-controlled fan silent heat dissipation
- Intel® Whiskey lake-U Core TM i3/i5/i7/Celeron series CPU
- 2-Ch DDR4 2400MHz SODIMM, up to 32GB
- 1*HDMI,1*DP,supports dual 4K display
- 1*Line out&Mic,4*USB3.0
- 2* GbE LAN,3/4*COM,8-bit DIO
- 1*M.2 2230 E-Key, 1*Mini-PCIe with a SIM card slot, optional mSATA
- 1*2.5 "SATA bay for storage
- DC 12V or DC 9-36V



Product Overview

PADR-M102-910 is an embedded box computer, which adopts SGCC box structure design and has a built-in 4-wire debugging fan for silent cooling. Power by Intel® Whiskey lake U architecture, adopt 8th generation Intel® Core TM i3/i5/i7/Celeron U Series CPU, dual 4K display, rich IO interface. DC 12V or wide voltage DC 9-36V, small size, beautiful appearance, easy to manufacture, suitable for mobile portable terminals, advertising machines, AGV, medical analysis equipment and other application scenarios.

Product Parameters

System

CPU	Intel® Whiskey lake-U CPU, Core I7-8565U 1.8-4.6 GHz , Core I5-8265U 1.6-3.9 GHz; Core I3-8145U 2.1-3.9 GHz; Celeron 4305U 2.2 GHz
RAM	2* DDR4, 2400MHz, 32GB max.
Graphics	Intel® Gen. 9 UHD Graphics; HDMI: 4096*2304@24Hz, DP: 4096*2304@60Hz,2 independent Display
LAN	1*Intel® I219LM ,10-1000M,WOL; 1*Intel® I226V,10-1000M,WOL
USB	4*USB3.0(5Gbps)
Display	1*DP+1*HDMI
Audio	1*Line out+1*Mic,Realtek ALC897
COM/others	2*RS232/422/485, 1*RS232;
DIO	1*8-bit DIO (OptionalRS232)

Storage

Storage	1*2.5" SATA,15mm thick HDD
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Others

LED	1*PowerLED, 1*HDD LED, 3*CPU Temp LED(Red is alarm, Yellow is high temp, Green is normal temp)
Switch	1*PowerSW
WDT	programmable via software 1 to 255 second

OS

OS	Windows 11, Windows 10, SUSE, Ubuntu, Wind River, Red Hat Enterprise
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Expansion

Expansion	1*M.2 2230 E-Key(PCIeX1/USB2.0),Wifi/BT; 1*Mini PCIe(+SIM),4G LTE/Wifi/BT/mSATA
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Power

Power&TDP	DC 12V(3-pin) or DC 9~36V; 27.87W (I7-8565U, 16GB DDR4, 1*4T SSD)
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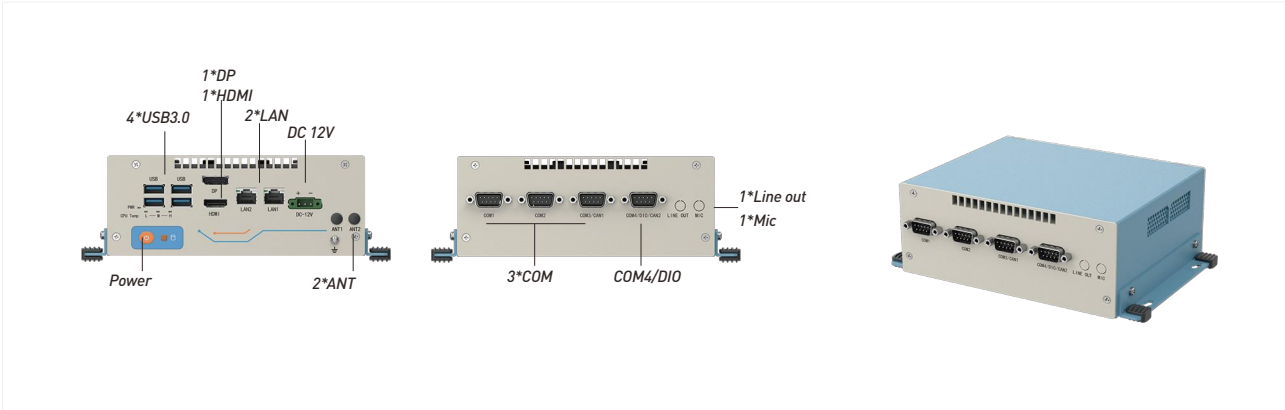
Mechanical

Structure	SGCC
Color	Silk Grey+Pastel Blue
Installation	desktop mounting
Dimension (W*H*D)	204*148*70mm
Weight	1.55KG

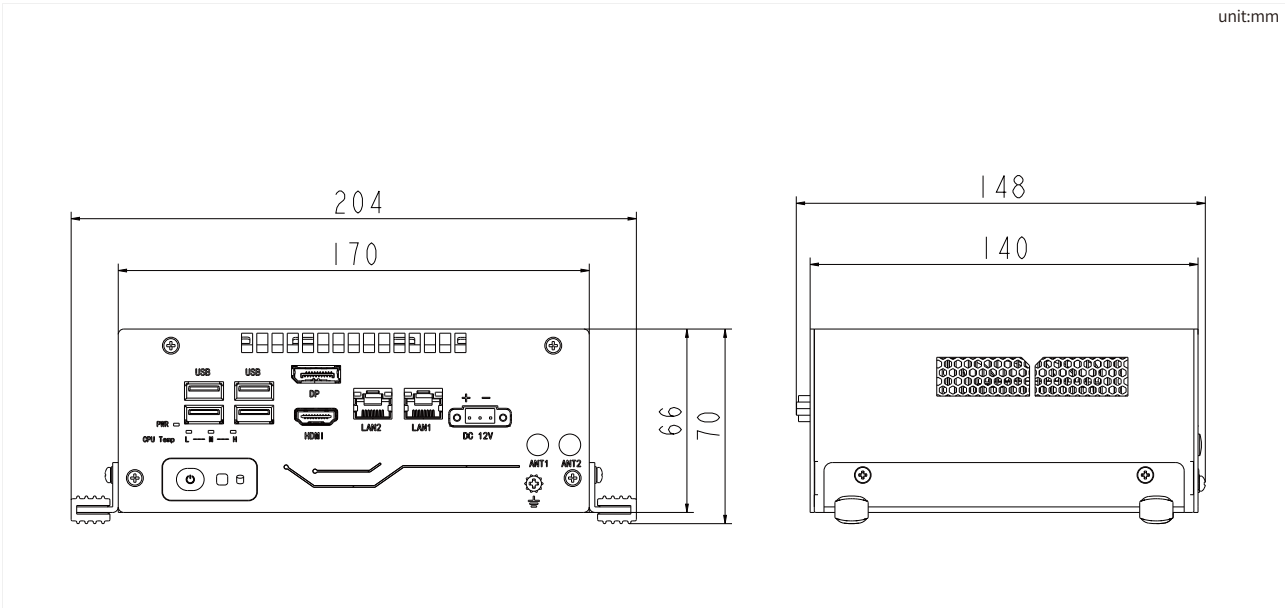
Environment

Operating Temp	0°C~50°C – Radiator with Fan,SSD;
Storage Temp	-40°C~85°C
Storage Temp	10~95%@40°C, No-condensation
Vibration	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)
Certificate/EMC	CE/FCC Class A

I/O View



Dimensions



Ordering Information

Model	Processor	Specifications
PADR-M102-910/S001	Intel® Core I3-8145U	2*SO-DIMM,1*HDMI,1*DP,1*Line out&Mic,2*LAN,4*USB3.0,3/4*COM,8-bit DIO, 1*M.2 E-key,1*Mini PCIe/mSATA,1*2.5"SATA,DC 12V
PADR-M102-910/S002	Intel® Core I5-8265U	
PADR-M102-910/S003	Intel® Core I7-8565U	
PADR-M102-910/S004	Intel® Celeron 4305U	
PADR-M102-910/S001-WP	Intel® Core I3-8145U	2*SO-DIMM,1*HDMI,1*DP,1*Line out&Mic,2*LAN,4*USB3.0,3/4*COM,8-bit DIO, 1*M.2 E-key,1*Mini PCIe/mSATA,1*2.5"SATA,DC 9-36V
PADR-M102-910/S002-WP	Intel® Core I5-8265U	
PADR-M102-910/S003-WP	Intel® Core I7-8565U	
PADR-M102-910/S004-WP	Intel® Celeron 4305U	
PA-60DC12		AC/DC adapter, DC 12V/5A 60W+X standard power cable

PADR-M102-913

Intel® Tiger lake U CPU,2-CH DDR4,HDMI+DP,2*LAN,4*USB3.2,3/4*COM,1*M.2 E-key / 1*M.2 B-key,1*mSATA / 1*Mini-PCIe,DC 12V/DC 9-36V

Key Specification

- SGCC box design, 4-line temperature-controlled fan silent heat dissipation
- Intel® Tiger lake U Core TM i3/i5/i7/Celeron series CPU
- 2*DDR4 3200MHz SODIMM, up to 64GB
- 1*HDMI,1*DP,supports 4K+8K display
- 1*Line out&Mic,4*USB3.2
- 2* GbE LAN,3/4*COM,8-bit DIO
- 1*M.2 2230 E-Key /1*M.2 3052 B-key(+SIM), 1*Mini-PCIe(mSATA)
- 1*2.5 "SATA bay for storage
- DC 12V or DC 9-36V



Product Overview

PADR-M102-913 is an embedded box computer, which adopts SGCC box structure design and has a built-in 4-wire debugging fan for silent cooling. Power by Intel® Tiger lake U architecture, adopt the 11th generation Intel® Core TM i3/i5/i7/Celeron series CPU, 4K+8K display, rich IO interface. DC 12V or wide voltage DC 9-36V, small size, beautiful appearance, easy to manufacture, suitable for mobile portable terminals, advertising machines, AGV, medical analysis equipment and other application scenarios.

Product Parameters

System	
CPU	Intel® Tiger lake U Soc CPU, core i3-1115G4/i5-1135G7/i7-1165G7, Celeron 6305, TDP 12W/15W/28W
RAM	2*DDR4, 3200MHz, 64GB max.
Graphics	Intel UHD Graphics/Xe Graphics , Supports Intel DL boost,DirectX- 12.1,OpenGL 4.6 and OpenCL 3.0; HDMI:4096*2304@60Hz,DP:7680*4320@60Hz,2 independent Display
LAN	1*Intel® I219LM,10-1000M,WOL,iAMT13.0 1*Intel® I226V,10-1000M,WOL
USB	4*USB3.2(5Gbps)
Display	1*DP+1*HDMI
Audio	1*Line out+1*Mic,Realtek ALC897
COM/others	2*RS232/422/485, 1*RS232;
DIO	1*8-bit DIO (OptionalRS232)

Storage	1*2.5" SATA,max.15mm thick HDD ; 1*mSATA(Optional)
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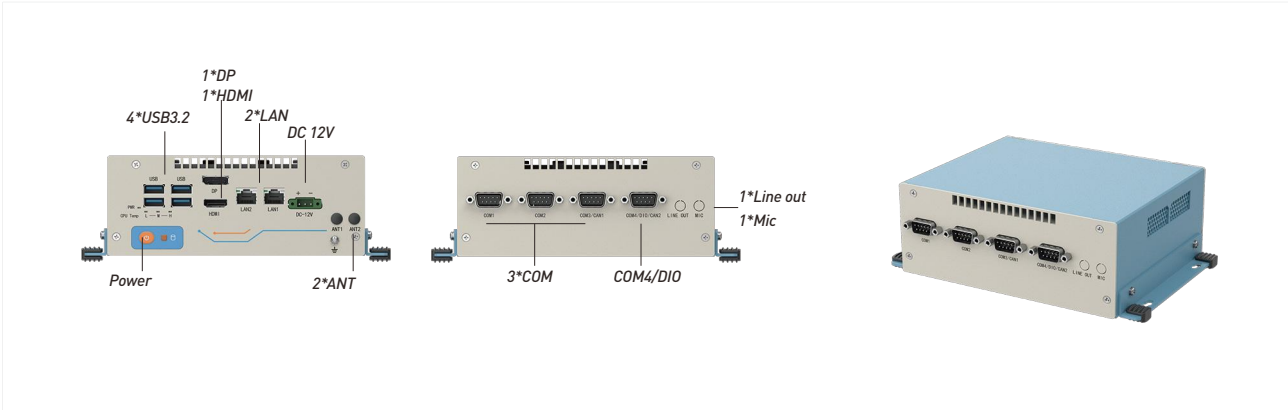
Others	1*PowerLED, 1*HDD LED, 3*CPU Temp LED(Red is alarm, Yellow is high temp, Green is normal temp)
Switch	1*PowerSW
WDT	programmable via software 1 to 255 second

OS	Windows 10/Windows 11 64 bit, SUSE, Ubuntu, Wind River, Linux
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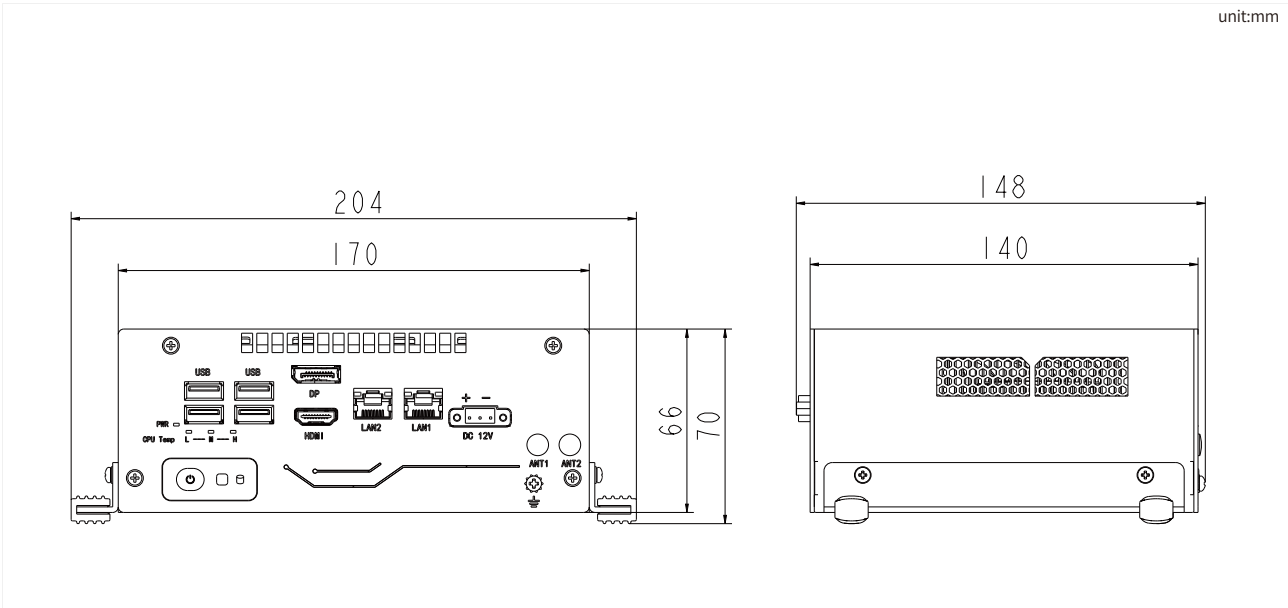
Expansion	1*Mini PCIe(PCIeX1),PCIe module/mSATA; 1*M.2 2230 E-Key(PCIeX1/USB2.0),Wifi5/BT5.0, or 1*M.2 3052 B-Key(+SIM),4G LTE/5G NR;
Power	DC 12V(3-pin) or DC 9~36V; TDP: TBD
Mechanical	SGCC
Structure	SGCC
Color	Silk Grey+Pastel Blue
Installation	desktop mounting
Dimension (W*H*D)	204*148*70mm
Weight	1.55KG

Environment	0°C~50°C – Radiator with Fan,SSD;
Operating Temp	0°C~50°C – Radiator with Fan,SSD;
Storage Temp	-40°C~85°C
Storage Temp	10~95%@40°C, No-condensation
Vibration	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)
Certificate/EMC	CE/FCC Class A

I/O View



Dimensions



Ordering Information

Model	Processor	Specifications
PADR-M102-913/S001	Intel® Core I3-1115G4	DDR4 2*SO-DIMM,1*HDMI,1*DP,1*Line out&Mic,2*LAN,4*USB3.2,3/4*COM,8-bit DIO, 1*M.2 E-key/1*M.2 B-key(B or E-Key),1*Mini PCIe/mSATA,1*2.5"SATA,DC 12V
PADR-M102-913/S002	Intel® Core I5-1135G7	
PADR-M102-913/S003	Intel® Core I7-1165G7	
PADR-M102-913/S004	Intel® Celeron 6305	
PADR-M102-913/S001-WP	Intel® Core I3-1115G4	DDR4 2*SO-DIMM,1*HDMI,1*DP,1*Line out&Mic,2*LAN,4*USB3.2,3/4*COM,8-bit DIO, 1*M.2 E-key/1*M.2 B-key(B or E-Key),1*Mini PCIe/mSATA,1*2.5"SATA,DC 9-36V
PADR-M102-913/S002-WP	Intel® Core I5-1135G7	
PADR-M102-913/S003-WP	Intel® Core I7-1165G7	
PADR-M102-913/S004-WP	Intel® Celeron 6305	
PA-60DC12		AC/DC adapter, DC 12V/5A 60W+X standard power cable

PADR-S501-953

Intel® SKL/KBL-S CPU, 2xLAN, VGA+HDMI+DVI, 3xCOM, 4xUSB3.0,5xUSB2.0, 4xPCIe/PCI, 4xSATA Bay, 4U rackmount, ATX power

Key Specification

- Intel gen 6/7th SKL/KBL-S LGA1151 CPU+H110 PCH
- Dual channel 2xDDR4 2133/2400MHz UDIMM, up to 32GB
- Intel 9th HD Graphic, VGA+HDMI+DVI-D 3 display
- 1xI219LM Gig. Ethernet+1xI211AT Gig. Ethernet
- 4xUSB3.0, 5xUSB2.0 (two front and one built-in), Audio out and Mic
- 2xRS232/422/485, 1xRS232, optional 1xLPT or 8 bit DIO
- 1xPCIeX16+1xPCI+2xPCIeX4, 1xFull size Mini PCIe
- 4x3.5 "SATA3.0 shock resistant and anti-vibration hard disk bay
- Standard 19"4U rackmount chassis with high efficiency air cooling design
- Standard PS2 ATX power supply, 300/500/750W



Product Overview

PADR-S501-953 is a standard 19"4U rackmount industrial computer with an Intel H110 chipset powered by Intel® gen 6/7th SKL/KBL-S LGA1151 series CPU. Rich functional IO, 4 PCIe/PCI expansion capabilities, excellent air cooling design, power consumption ladder ATX power supply selection, suitable for machine vision, CNC machine tools and factory production line automation and other fields.

Product Parameters

System

CPU	Intel 6/7th Gen. SKL/KBL-S Core i7/i5/i3/Pentium/Celeron LGA1151 CPU,91W, H110chipset
RAM	2*288-pin Non-ECC UDIMM , dual channel DDR4 2400MHz, 32GB max.
Graphics	Intel HD Graphics, Supports DirectX 12, OpenGL 4.5 AVC/VC1/MPEG2/HEVC/VP8/JPEG.HW HDMI: 4096x2304@24Hz,VGA: 1920x1200@60Hz, DVI-D: 1920*1200@60Hz
LAN	1*Intel I211AT/I210AT,10-1000M,WOLRemote 1*Intel I219LM,10-1000M,WOLRemote
USB	4*USB3.0(5Gbps),5*USB2.0
Display	1*HDMI+1*VGA+1*DVI-D
Audio	1*Line out+1*Mic,Realtek ALC897
COM/others	2*RS232/422/485, 1*RS232; Optional1*LPT
DIO	1*8-bit DIO (Optional)

Storage

Storage	4xSATA3, 6.0Gbps interface, the box is designed with 4x3.5 "and 2x2.5" a set of anti-vibration hard disk bay, 1 ultrathin DVD driver bay
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Others

LED	Power LED,HDD LED
Switch	1*Power SW, USB Power , AT/ATX , Clear CMOS ,
WDT	programmable via software 1 to 255 second

OS

OS	Windows 7(SKL-S32bit &64bit ,KBL-S64bit), Windows 10,Linux
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Expansion

Expansion	1*PCIe3.0 X16(X16) + 2*PCIe2.0 X4(X1) + 1*32 bit PCI; 1*Full size Mini PCIe(X1)
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Power

Power& TDP	AC100-240V,Standard ATXPower300W,Optional500W or 750W; TBD
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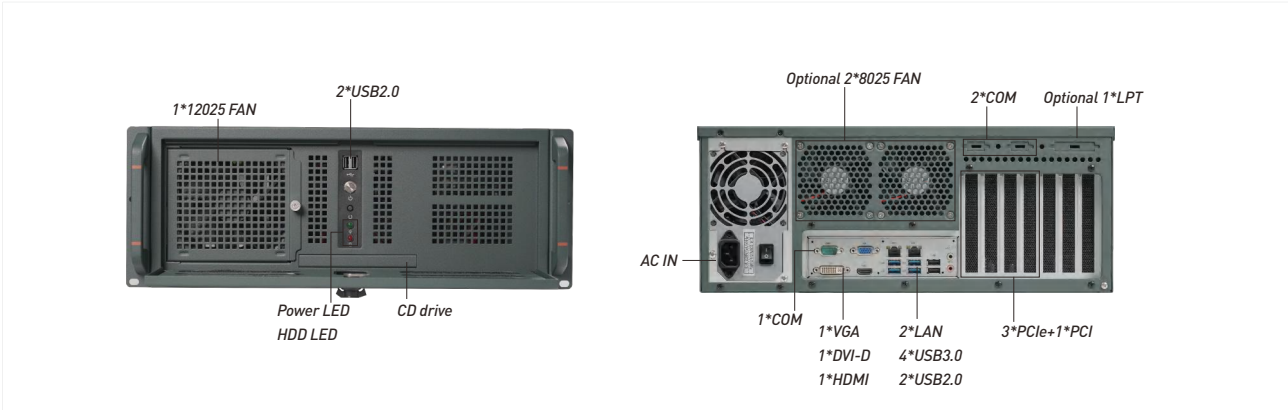
Mechanical

Structure	Door with lock design, SGCC steel plate, metal mold molding
Cooling	Linear airflow,12025 ball bearing fan,optional 2*8025 ball bearing fan
Color	Granite grey
Installation	Mounted on 19"rack, optional mounting rail set
Dimension (W*H*D)	430*470*173mm
Weight	14 KG

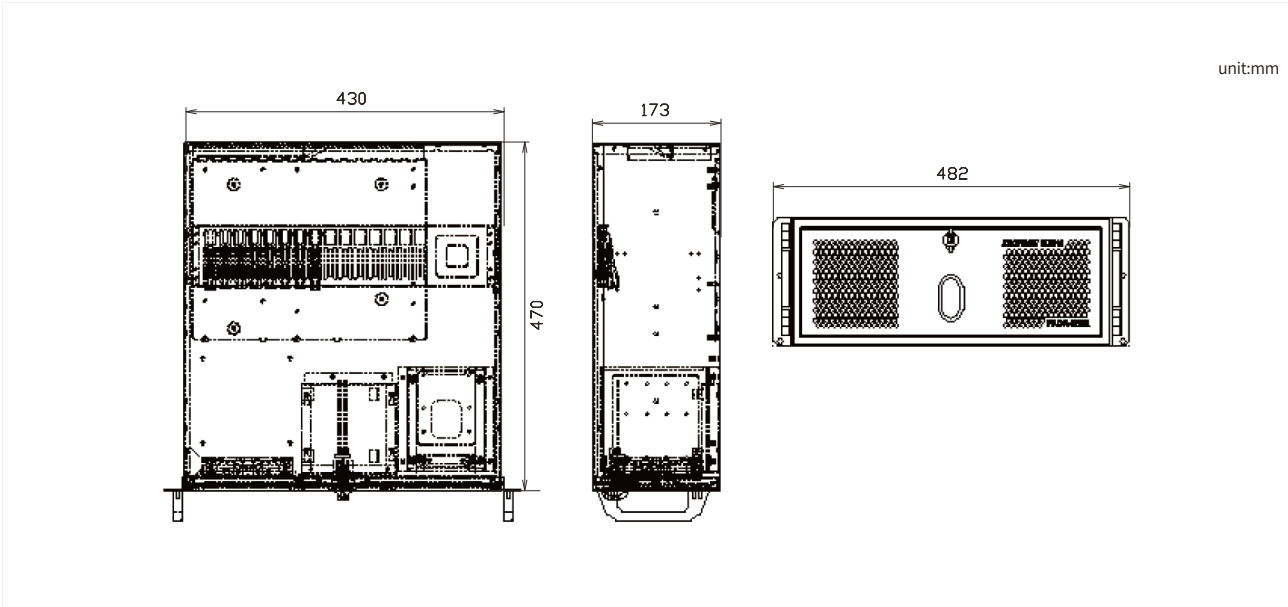
Environment

Operating Temp	0°C~50°C
Storage Temp	-40°C~85°C
Storage Temp	10~95%@40°C, No-condensation
Vibration	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)
Certificate/EMC	CE/FCC Class A ,3C

I/O View



Dimensions



Ordering Information

Model	Processor	Specifications	Power
PADR-S501/953-300	Intel® Skylake-S/Kabylake-S LGA1151 CPU,H110 PCH	2xDDR4 UDIMM, 2xLAN, 4xUSB3.0, 5xUSB2.0, 3xCOM,1xPCIe X16, 2xPCIeX4(X1), 1x32bit PCI, 1xMini PCIe, 1xHDMI, 1xVGA, 1xDVI-D, 1xLine out & 1xMic, 4x3.5"SATA	AC 220-230V,ATX 300W
PADR-S501/953-500			AC 100-240V,ATX 500W
PADR-S501/953-750			AC 100-240V,ATX 750W

Accessories

Standard	Amount	Optional	Optional
Screw jumper package	1	LGA115X, TDP 35-65W CPU wind-cooling radiator	A pair of guide rail mounting parts
Air Filter		LGA115X, TDP 95W CPU wind cooling radiator	8025 Dual ball bearing DC 12V fans
AC power supply cabel		one 4pin to 2+6pin GPU power cable	DB25 female head parallel port cabel
		SATA 7pin data cable,420mm	DB9 male needle DIO cabel

PADR-S501-961

Intel® Coffee lake-R CPU, 3xLAN, 2xDP+1xHDMI, 2xCOM, 4xUSB3.1,7xUSB2.0, 4xPCIe, 4xSATA Bay, 4U rackmount, ATX power

Key Specification

- Intel gen 8/9th Coffee lake-R LGA1151 CPU+Q370 PCH
- Dual channel 4xDDR4 2666/2400MHz DIMM, up to 128GB
- Intel UHD Graphic, 2xDP+1xHDMI three independent display
- 1xI219LM Gig. Ethernet+2xI210AT Gig. Ethernet
- 4xUSB3.1,7xUSB2.0 (two front and one built-in), Audio out and Mic
- 2xRS232/422/485, 8 bit DIO
- 1xPCIeX16 or 2xPCIeX8+2xPCIeX4
- 1xMini PCIe with a SIM card slot, 1xM.2 2280 M-Key
- 4x3.5 "SATA3.0 shock resistant and anti-vibration hard disk bay
- Standard 19” 4U rackmount chassis with high efficiency air cooling design
- Standard PS2 ATX power supply,300/500/750/1000W



Product Overview

PADR-S501-961 is a standard 19” 4U rackmount industrial computer with an Intel Q370 chipset powered by Intel® gen 8/9th Coffee lake-R LGA1151 series CPU. Rich functional IO, 4 PCIe expansion capabilities, excellent air cooling design, power consumption ladder ATX power supply selection, suitable for machine vision, CNC machine tools and factory production line automation and other fields.

Product Parameters

System

CPU	Intel® 8/9th Gen. Coffee-S Core i9/i7/i5/i3 LGA1151 CPU, 最高95W,Q370chipset
RAM	4*288-pin Non-ECC UDIMM , dual channelDDR4 2400/2666MHz, 128GB max. Intel UHD Graphics, Supports DirectX 12, OpenGL 4.5;
Graphics	HDMI: 4096x2304@24Hz, DP: 4096*2304@60Hz,3 independent display
LAN	2*Intel I210AT/I211AT,10-1000M,WOLRemote 1*Intel I219LM,10-1000M,WOL/AMT12.0/iVpro
USB	4*USB3.1 Gen2(10Gbps),7*USB2.0
Display	2*DP+1*HDMI
Audio	1*Line out+1*Mic,Realtek ALC662VD
COM/others	2*RS232/422/485; 1*PS/2
DIO	1*8-bit DIO (Optional)

Storage

Storage	4xSATA3, 6.0Gbps interface, the box is designed with 4x3.5 "and 2x2.5" a set of anti-vibration hard disk bay, 1 ultrathin DVD driver bay
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Others

LED	Power LED,HDD LED
Switch	1*Power SW, USB Power , AT/ATX , Clear CMOS ,
WDT	programmable via software 1 to 255 second

OS

OS	Windows 10 Enterprise & IOT Enterprise(64 bit)(CFL-R) Windows Server 2016 (Intel® Xeon® E) Ubuntu, SuSe, Redhat Enterprise 1,2 (Kernel 4.14) (CFL-R) Wind River VxWorks 7 (CFL-R)
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Expansion

Expansion	2*PCIe3.0 X16(1*X16 or 2*X8) + 2*PCIe3.0 X8(X4) + 1*32 bit PCI; 1*Full size Mini PCIe(X1/USB+SIM); 1*M.2 2280 M-key(PCIe3.0 X4)
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Power

Power& TDP	AC100-240V,StandardATXPower300W,Optional500W/750W/1000W; TDP:TBD
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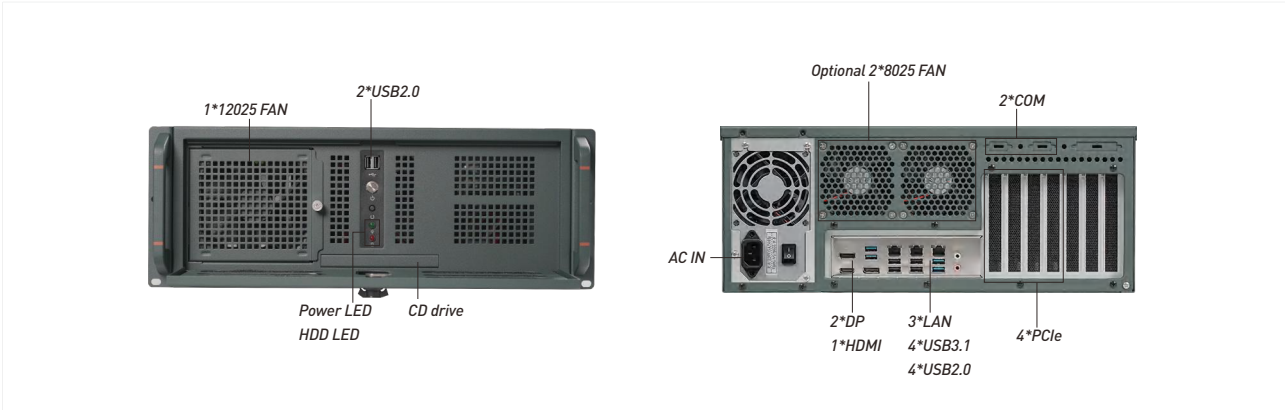
Mechanical

Structure	Door with lock design, SGCC steel plate, metal mold molding
Cooling	Linear airflow, front 12025 fan, optional 2*8025 ball bearing fan
Color	Granite grey
Installation	Mounted on 19"rack, optional mounting rail set
Dimension (W*H*D)	430*470*173mm
Weight	14 KG

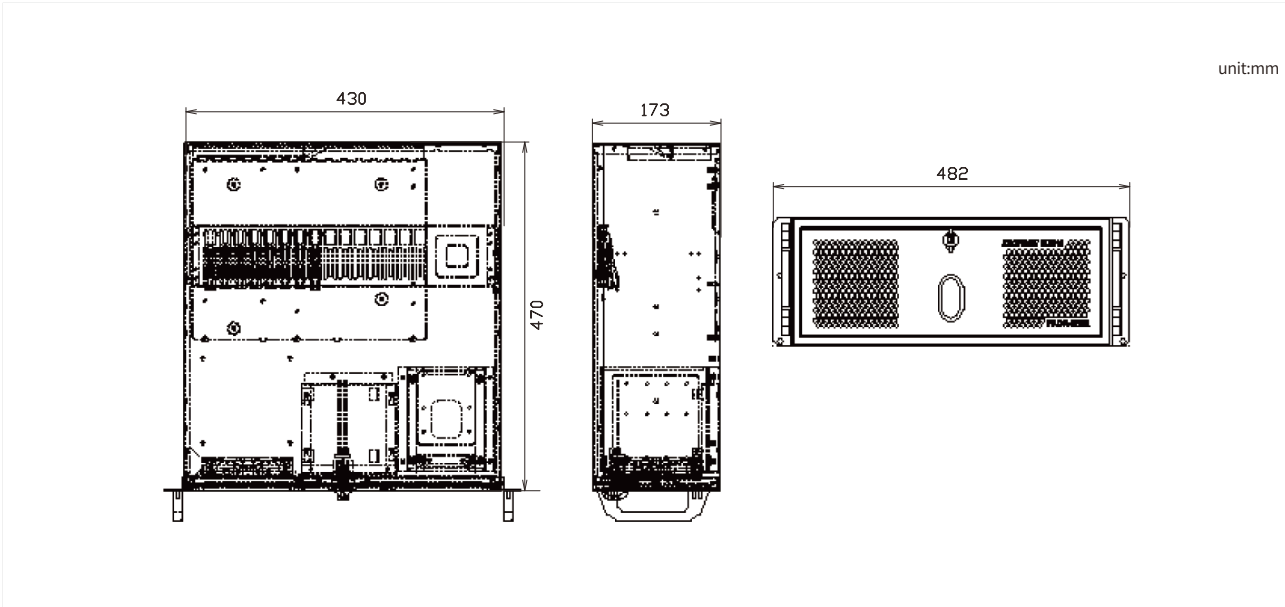
Environment

Operating Temp	0°C~50°C
Storage Temp	-40°C~85°C
Storage Temp	10~95%@40°C, No-condensation
Vibration	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)
Certificate/EMC	CE/FCC Class A ,3C

I/O View



Dimensions



Ordering Information

Model	Processor	Specifications	Power
PADR-S501/961-300	Intel® Coffee lake-R LGA1151 CPU,Q370 PCH	4xDDR4 DIMM, 3xLAN, 4xUSB3.1 , 7xUSB2.0, 2xCOM, 1xMini PCIe, 1xM.2 2280 M-Key, 1xPCIe X16 (or 2xPCIeX8), 2xPCIeX4, 1xHDMI, 2xDP, 1xLine out & 1xMic, 4x3.5" SATA	AC 220-230V,ATX 300W
PADR-S501/961-500			AC 100-240V,ATX 500W
PADR-S501/961-750			AC 100-240V,ATX 750W
PADR-S501/961-1000			AC 100-240V,ATX 1000W

Accessaries

Standard	Amount	Optional	Optional
Screw jumper package	1	LGA115X, TDP 35-65W CPU wind-cooling radiator	A pair of guide rail mounting parts
Air Filter		LGA115X, TDP 95W CPU wind cooling radiator	8025 Dual ball bearing DC 12V fans
AC power supply cabel		one 4pin to 2+6pin GPU power cable	DB9 male needle DIO cabel
		SATA 7pin data cable,420mm	

PADR-S501-964

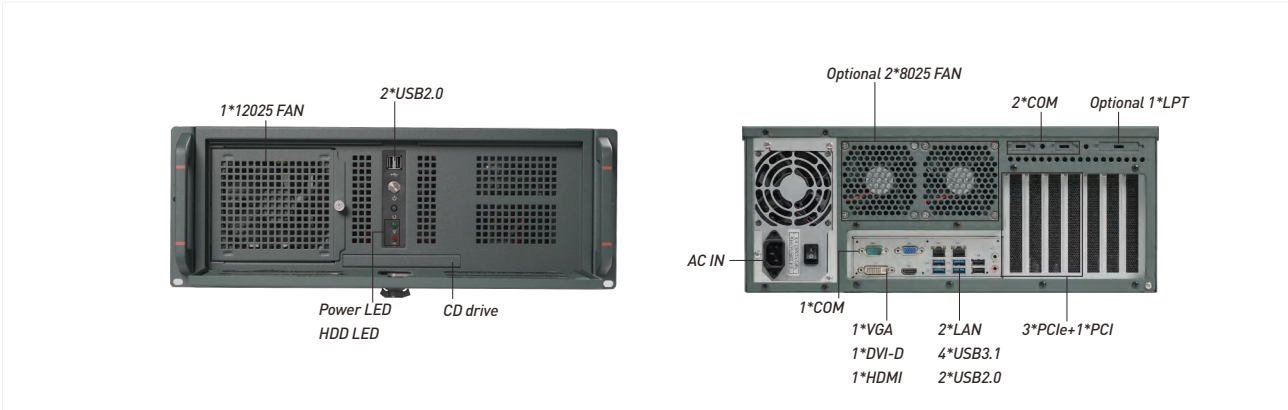
Intel® Coffee lake-S CPU, 2xLAN, VGA+HDMI+DVI, 3xCOM, 4xUSB3.1,5xUSB2.0, 4xPCIe/PCI, 4xSATA Bay, 4U rackmount, ATX power

Key Specification

- Intel gen 8/9th Coffee lake-S LGA1151 CPU+H310 PCH
- Dual channel 2xDDR4 2666MHz UDIMM, up to 64GB
- VGA+HDMI/ VGA +DVI-D/ HDMI+ DVI-D 2 independent display
- 1xI219LM Gig. Ethernet+1xI226V Gig. Ethernet
- 4xUSB3.1, 5xUSB2.0 (two front and two built-in), Audio out and Mic
- 2xRS232/422/485, 1xRS232, optional 1xLPT or 8 bit DIO
- 1xPCIeX16+1xPCI+2xPCIeX4, 1*M.2 2242/2280 M-Key
- 4x3.5 "SATA3.0 shock resistant and anti-vibration hard disk bay
- Standard 19" 4U rackmount chassis with high efficiency air cooling design
- Standard PS2 ATX power supply, 300/500/750W



I/O View



Product Overview

PADR-S501-964 is a standard 19" 4U rackmount industrial computer with an Intel H310 chipset powered by Intel® gen 8/9th Coffee lake-S LGA1151 series CPU. Rich functional IO, 4 PCIe/PCI expansion capabilities, excellent air cooling design, power consumption ladder ATX power supply selection, suitable for machine vision, CNC machine tools and factory production line automation and other fields.

Product Parameters

System

CPU	Intel 8/9th Gen. Coffee lake-S Core i9/i7/i5/i3/Pentium/Celeron LGA1151 CPU,95W, H310 chipset
RAM	2*288-pin Non-ECC UDIMM , dual channel DDR4 2666MHz, 64GB max. Intel UHD Graphics, Supports DirectX 12, OpenGL 4.5, HDMI: 4096x2304@24Hz,VGA: 1920x1200@60Hz, DVI-D: 1920*1200@60Hz; 2 independent Display
LAN	1*Intel I226V,10M-2.5G,WOL; 1*Intel I219LM,10-1000M,WOL
USB	4*USB3.1 Gen1(5Gbps),5*USB2.0
Display	1*HDMI+1*VGA+1*DVI-D
Audio	1*Line out+1*Mic,Realtek ALC897
COM/others	2*RS232/422/485, 1*RS232; Optional1*LPT
DIO	1*8-bit DIO (Optional)

Storage

Storage	4xSATA3, 6.0Gbps interface, the box is designed with 4x3.5 "and 2x2.5" a set of anti-vibration hard disk bay, 1 ultrathin DVD driver bay
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Others

LED	Power LED,HDD LED
Switch	1*Power SW, USB Power , AT/ATX , Clear CMOS ,
WDT	programmable via software 1 to 255 second

OS

OS	Windows7, Windows 10 Enterprise & IOT Enterprise (64 bit)(CFL-R); Windows Server 2016 (Intel® Xeon® E) ,Ubuntu,SuSe, Redhat Enterprise 1,2 (Kernel 4.14) (CFL-R) ,Wind River ,VxWorks 7 (CFL-R)
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Expansion

Expansion	1*PCIe3.0 X16(X16) + 2*PCIe2.0 X4(X1) + 1*32 bit PCI; 1*M.2 2280 M-key(PCIe2.0 X2)
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Power

Power& TDP	AC100-240V,StandardATXPower300W,Optional500W/750W; TDP:197.8W(i7-9900K CPU/16G DDR4/256G SSD)
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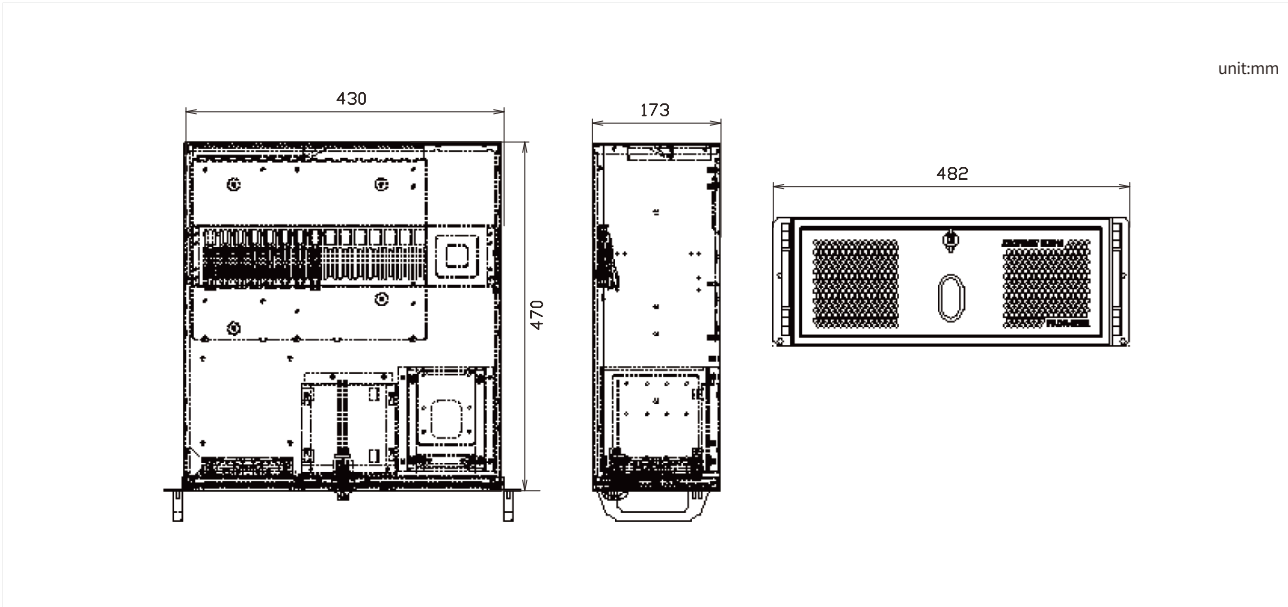
Mechanical

Structure	Door with lock design, SGCC steel plate, metal mold molding
Cooling	Linear airflow, front 12025 fan, optional 2*8025 ball bearing fan
Color	Granite grey
Installation	Mounted on 19"rack, optional mounting rail set
Dimension (W*H*D)	430*470*173mm
Weight	14 KG

Environment

Operating Temp	0°C~50°C
Storage Temp	-40°C~85°C
Storage Temp	10~95%@40°C, No-condensation
Vibration	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)
Certificate/EMC	CE/FCC Class A ,3C

Dimensions



Ordering Information

Model	Processor	Specifications	Power
PADR-S501/964-300	Intel® Coffee lake-S LGA1151 CPU,H310 PCH	2xDDR4 UDIMM, 2xLAN, 4xUSB3.1, 5xUSB2.0, 3xCOM, 1xPCIe X16, 2xPCIeX4(X1), 1x32bit PCI, 1xM.2 M-Key, 1xHDMI, 1xVGA, 1xDVI-D, 1xLine out & 1xMic, 4x3.5" SATA	AC 220-230V,ATX 300W
PADR-S501/964-500			AC 100-240V,ATX 500W
PADR-S501/964-750			AC 100-240V,ATX 750W

Accessories

Standard	Amount	Optional	Optional
Screw jumper package	1	LGA115X, TDP 35-65W CPU wind-cooling radiator	A pair of guide rail mounting parts
Air Filter		LGA115X, TDP 95W CPU wind cooling radiator	8025 Dual ball bearing DC 12V fans
AC power supply cabel		one 4pin to 2+6pin GPU power cable	DB25 female head parallel port cabel
		SATA 7pin data cable,420mm	DB9 male needle DIO cabel

PADR-S501-971

Intel® Comet lake-S CPU, 2xLAN, VGA+HDMI, 4xCOM, 4xUSB3.2,5xUSB2.0, 7xPCIe/PCI, 4xSATA Bay, 4U rackmount, ATX power

Key Specification

- Intel gen 10th Cometlake-S LGA1200 CPU+H420E PCH
- Dual channel 2xDDR4 2933MHz DIMM, up to 64GB
- Intel UHD Graphic, 1xVGA+1xHDMI dual independent display
- 1xI219LM Gig. Ethernet+1xI226V 2.5Gig. Ethernet
- 4xUSB3.2,5xUSB2.0 (two front and one built-in), Audio out and Mic
- 2xRS232/422/485, 2xRS232, optional 1xLPT or 8 bit DIO
- 1xPCIeX16+3xPCI+3xPCIeX4
- 4x3.5 "SATA3.0 shock resistant and anti-vibration hard disk bay
- Standard 19” 4U rackmount chassis with high efficiency air cooling design
- Standard PS2 ATX power supply, 300/500/750W



Product Overview

PADR-S501-971 is a standard 19” 4U rackmount industrial computer with an Intel H420E chipset powered by Intel® gen 10th Comet lake-S LGA1200 series CPU. Rich functional IO, 7 PCIe/PCI expansion capabilities, excellent air cooling design, power consumption ladder ATX power supply selection, suitable for machine vision, CNC machine tools and factory production line automation and other fields.

Product Parameters

System

CPU	Intel 10th Gen. Cometlake-S Core i9/i7/i5/i3/Pentium/Celeron LGA1200 CPU,125W, H420E chipset
RAM	2*288-pin Non-ECC UDIMM , dual channel DDR4 2933MHz, 64GB max.
Graphics	Intel UHD Graphics, Supports DirectX 12, OpenGL 4.5 AVC/VC1/MPEG2/HEVC/VP8/JPEG.HW HDMI: 4096x2160@30Hz,VGA: 1920x1200@60Hz,
LAN	1*Intel I226V,10M-2.5G,WOL; 1*Intel I219LM,10-1000M,WOL
USB	4*USB3.2 Gen1(5Gbps),5*USB2.0
Display	1*HDMI+1*VGA
Audio	1*Line out+1*Mic,Realtek ALC897
COM/others	2*RS232/422/485, 2*RS232; Optional1*LPT
DIO	1*8-bit DIO (Optional)

Storage

Storage	4xSATA3, 6.0Gbps interface, the box is designed with 4x3.5 "and 2x2.5" a set of anti-vibration hard disk bay, 1 ultrathin DVD driver bay
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Others

LED	Power LED,HDD LED
Switch	1*Power SW, USB Power , AT/ATX , Clear CMOS ,
WDT	programmable via software 1 to 255 second

OS

OS	Windows 10, Windows 11, Linux Ubuntu
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Expansion

Expansion	1*PCIe3.0 X16(X16) + 3*PCIe3.0 X4(X2+1+1 or X4) + 3*32 bit PCI
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Power

Power& TDP	AC100-240V,StandardATXPower300W,Optional500W/750W; TDP:184.85W(I7-10700K CPU/16G DDR4/256G SSD)
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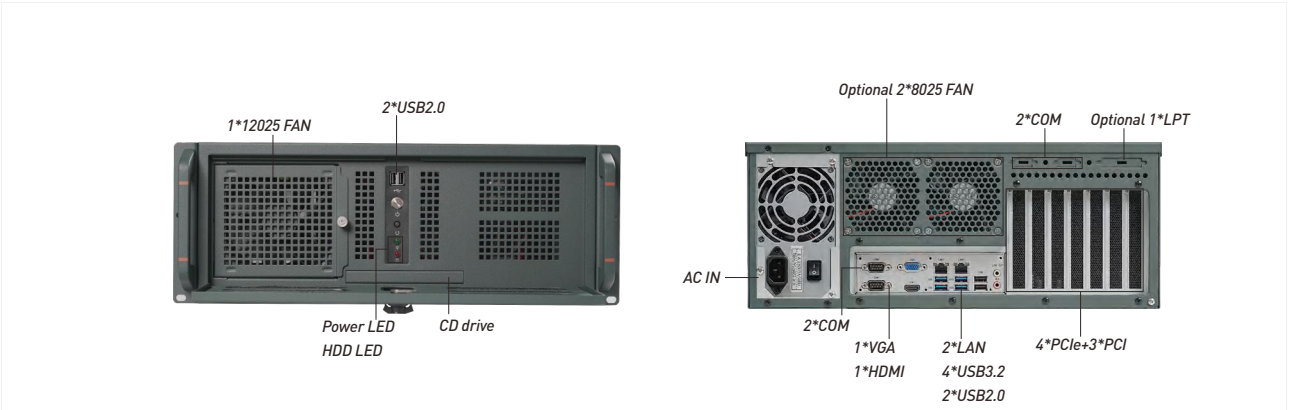
Mechanical

Structure	Door with lock design, SGCC steel plate, metal mold molding
Cooling	Linear airflow, front 12025 fan, optional 2*8025 ball bearing fan
Color	Granite grey
Installation	Mounted on 19"rack, optional mounting rail set
Dimension (W*H*D)	430*470*173mm
Weight	14 KG

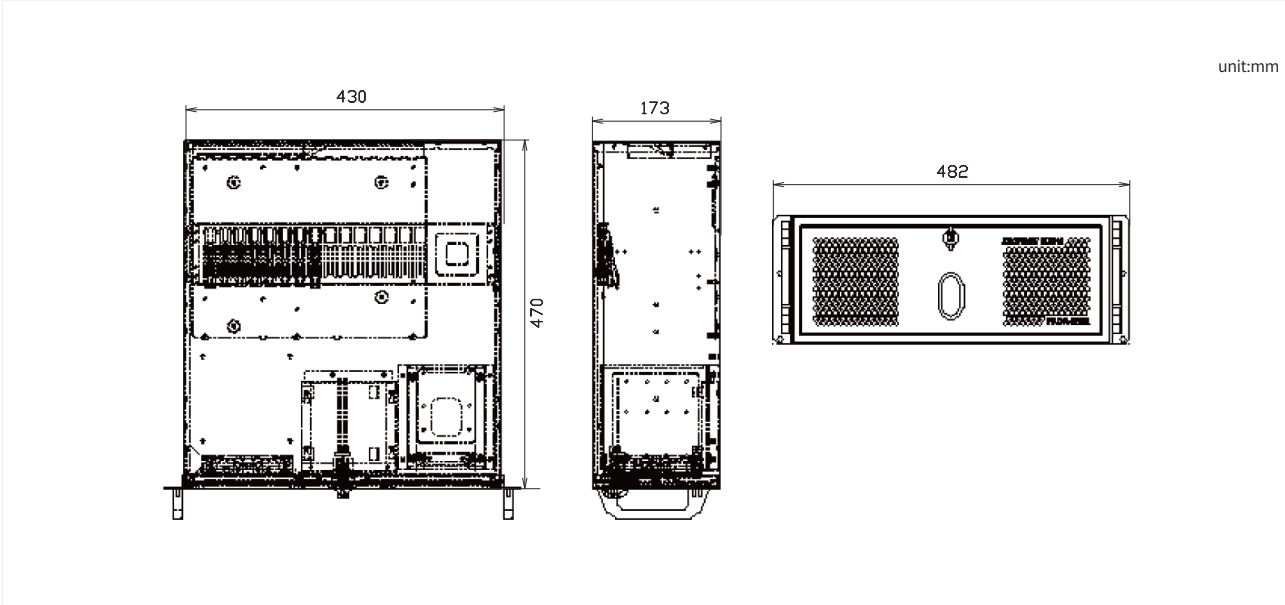
Environment

Operating Temp	0°C~50°C
Storage Temp	-40°C~85°C
Storage Temp	10~95%@40°C, No-condensation
Vibration	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)
Certificate/EMC	CE/FCC Class A ,3C

I/O View



Dimensions



Ordering Information

Model	Processor	Specifications	Power
PADR-S501/971-300	Intel® Cometlake-S LGA1200 CPU,H420E PCH	2xDDR4 UDIMM, 2xLAN, 4xUSB3.2, 5xUSB2.0, 4xCOM,1xPCIe X16, 3xPCIeX4(X2+1+1 or X4),3x32bit PCI,1xHDMI, 1xVGA, 1xLine out & 1xMic, 4x3.5" SATA	AC 220-230V,ATX 300W
PADR-S501/971-500			AC 100-240V,ATX 500W
PADR-S501/971-750			AC 100-240V,ATX 750W

Accessories

Standard	Amount	Optional	Optional
Screw jumper package	1	LGA115X, TDP 35-65W CPU wind-cooling radiator	A pair of guide rail mounting parts
Air Filter		LGA115X, TDP 125W CPU wind cooling radiator	8025 Dual ball bearing DC 12V fans
AC power supply cabel		one 4pin to 2+6pin GPU power cable	DB25 female head parallel port cabel
		SATA 7pin data cable,420mm	DB9 male needle DIO cabel

PADR-S501-980

Intel® Alder lake-S/Raptor Lake-S CPU, 2xLAN, VGA+HDMI+DP, 3xCOM, 4xUSB3.2,7xUSB2.0, 7xPCIe/PCI, 4xSATA Bay, 4U rackmount, ATX power

Key Specification

- Intel gen 12/13th Alderlake-S/Raptor Lake-S LGA1700 CPU+Q670 PCH
- Dual channel 4xDDR4 3200MHz UDIMM, up to 128GB
- Intel UHD Graphic, 1xVGA+1xHDMI+1xDP three independent display
- 1xI219LM Gig. Ethernet+1xI226V Gig. Ethernet
- 4xUSB3.2,7xUSB2.0 (two front and one built-in), Audio out and Mic
- 2xRS232/422/485, 1xRS232, optional 8-bit DIO
- 2xPCIeX16+1xPCI+4xPCIeX4
- 4x3.5 "SATA3.0 shock resistant and anti-vibration hard disk bay
- Standard 19" 4U rackmount chassis with high efficiency air cooling design
- Standard PS2 ATX power supply, 300/500/750/1000W



Product Overview

PADR-S501-980 is a standard 19"4U rackmount industrial computer with an Intel Q670 chipset powered by Intel® gen 12/13th Alder lake-S/Raptor Lake-S LGA1700 series CPU. Rich functional IO, 7 PCIe/PCI expansion capabilities, excellent air cooling design, power consumption ladder ATX power supply selection, suitable for machine vision, CNC machine tools and factory production line automation and other fields.

Product Parameters

System

CPU	Intel gen 12/13th Alderlake-S/Raptor Lake-S LGA1700 CPU; Q670 PCH
RAM	2*288-pin Non-ECC UDIMM , dual channel DDR4 2933MHz, 64GB max.
Graphics	Intel UHD Graphics, Supports DirectX 12, OpenGL 4.5 AVC/VC1/MPEG2/HEVC/VP8/JPEG.HW HDMI: 4096x2160@30Hz;VGA: 1920x1200@60Hz,
LAN	1*Intel I226V,10M-2.5G,WOL; 1*Intel I219LM,10-1000M,WOL
USB	4*USB3.2 Gen1(5Gbps),5*USB2.0
Display	1*HDMI+1*VGA
Audio	1*Line out+1*Mic,Realtek ALC897
COM/others	2*RS232/422/485, 2*RS232; Optional 1*LPT
DIO	1*8-bit DIO (Optional)

Storage

Storage	4xSATA3, 6.0Gbps interface, the box is designed with 4x3.5 "and 2x2.5" a set of anti-vibration hard disk bay, 1 ultrathin DVD driver bay
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Others

LED	Power LED,HDD LED
Switch	1*Power SW, USB Power , AT/ATX , Clear CMOS ,
WDT	programmable via software 1 to 255 second

OS

OS	Windows 10, Windows 11, Linux Ubuntu
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Expansion

Expansion	1*PCIe3.0 X16(X16) + 3*PCIe3.0 X4(X2+1+1 or X4) + 3*32 bit PCI
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Power

Power& TDP	AC100-240V,StandardATXPower300W,Optional500W/750W; TDP:184.85W(I7-10700K CPU/16G DDR4/256G SSD)
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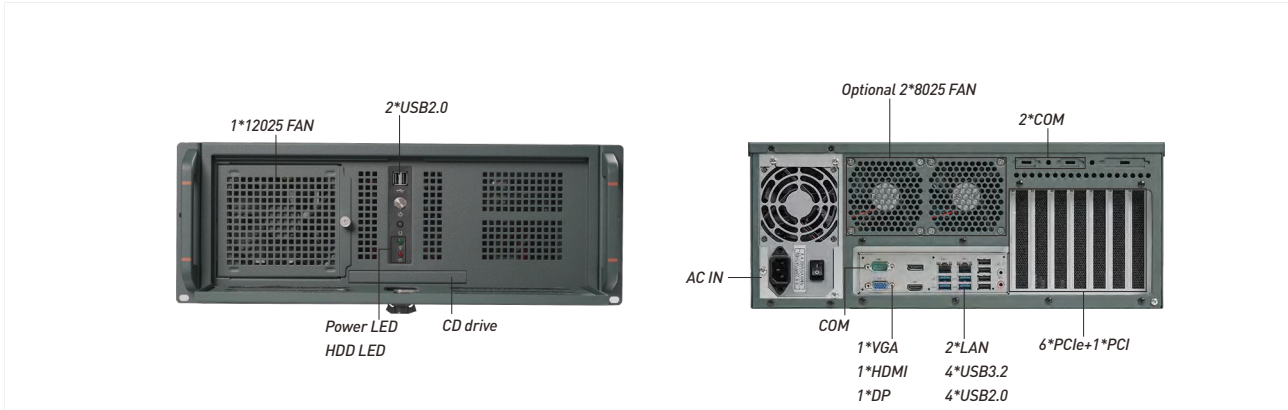
Mechanical

Structure	Door with lock design, SGCC steel plate, metal mold molding
Cooling	Linear airflow, front 12025 FAN ,optional 2*8025 ball bearing fan
Color	Granite grey
Installation	Mounted on 19"rack, optional mounting rail set
Dimension (W*H*D)	430*470*173mm
Weight	14 KG

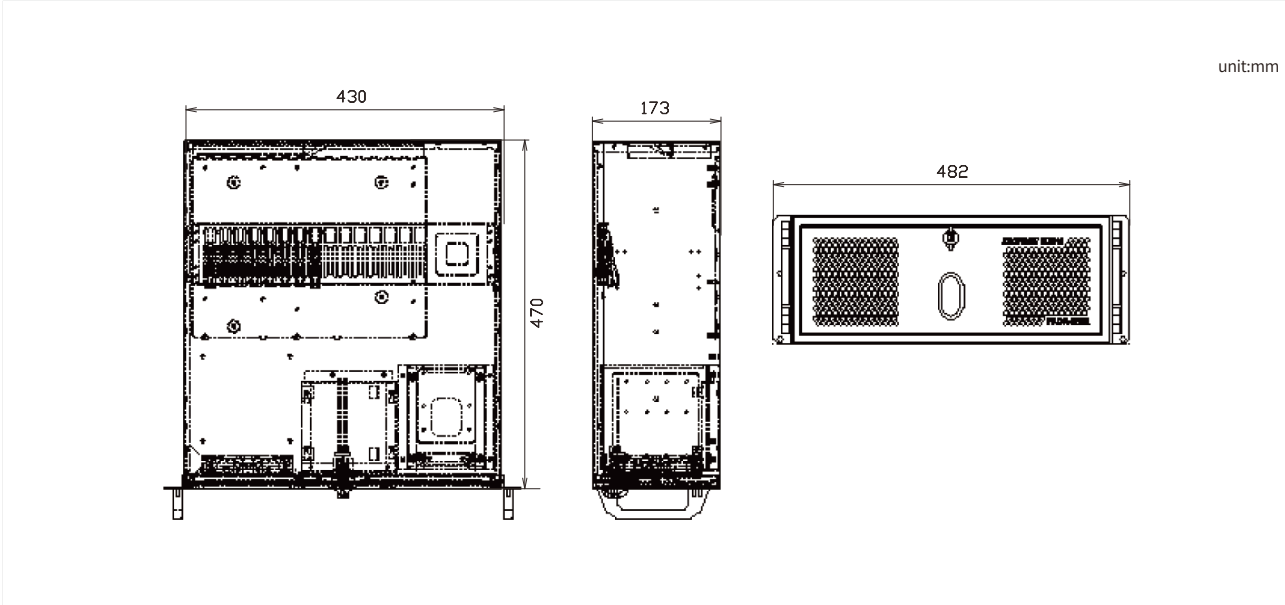
Environment

Operating Temp	0°C~50°C
Storage Temp	-40°C~85°C
Storage Temp	10~95%@40°C, No-condensation
Vibration	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)
Certificate/EMC	CE/FCC Class A ,3C

I/O View



Dimensions



Ordering Information

Model	Processor	Specifications	Power
PADR-S501/980-300WP	Intel® Q670 PCH+Alder lake-S/ Raptor Lake-S LGA1700 CPU	4xDDR4 UDIMM, 2xLAN, 4xUSB3.2, 7xUSB2.0(one built-in), 3xCOM, 2xPCIe X16 (X8)), 4xPCIeX4 (three are X4 s, one is X1 s), 1x32bit PCI, 1xM.2 M-Key, 1xHDMI, 1xVGA, 1xDP, 1xLine out and 1xMic, 4x3.5"SATA bay	AC 220-230V,ATX 300W
PADR-S501/980-500			AC 100-240V,ATX 500W
PADR-S501/980-750			AC 100-240V,ATX 750W
PADR-S501/980-1000			AC 100-240V,ATX 1000W

Accessaries

Standard	Amount	Optional	Optional
Screw jumper package	1	LGA1700, TDP 65W CPU wind-cooling radiator	A pair of guide rail mounting parts
Air Filter		LGA1700, TDP 95W CPU wind cooling radiator	8025 Dual ball bearing DC 12V fans
AC power supply cabel		LGA1700, TDP 125W CPU wind cooling radiator	two 4pin to 2+6pin GPU power cable
		SATA 7pin data cable,420mm	DB9 male needle DIO cabel