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Suzhou Haite Automation Equipment Co., Ltd National service hotline:400-0086-772

Tel: 0512-69390986

Website: [www.js-hightech.com.cn](http://www.js-hightech.com.cn)

Factory Address: C3, Wanan Industrial Park, No.2 Zhongshi Road, Xiangcheng District, Suzhou



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# 海特

# WE PROVIDE THE BEST QUALITY



# 2024 产品选型手册 V2.0 Pro

笃实 · 精技 · 开拓 · 创新  
Honest, Skilled, pioneering and innovative



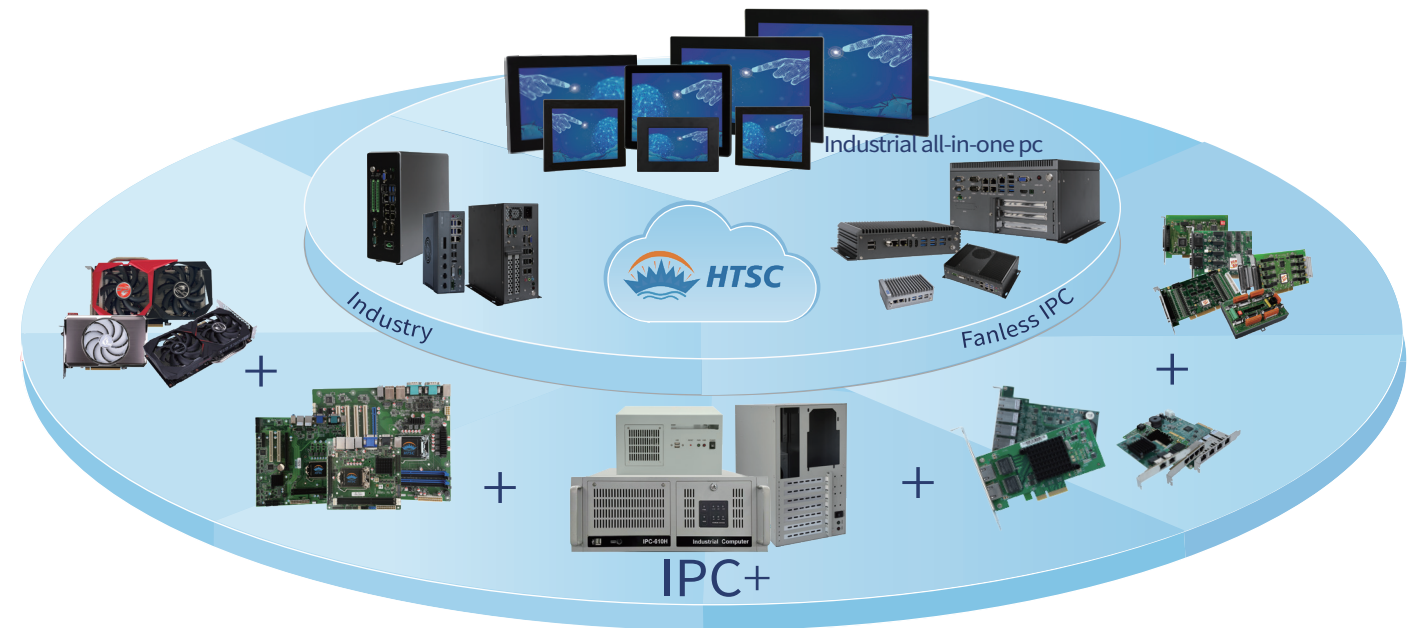
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## 产品布局 PRODUCT LAYOUT

Focus on industrial computer overall solutions



## Haite fast contact channel



Telephone consultation  
Service hotline:400-0086-772  
Enquiry hotline:0512-69390986



Email consultation  
sales@js-hightech.com.cn



Haite online mall  
Tmall: HTSC Flagship store  
Jingdong: HTSC Official flagship store  
1688: Suzhou Haite Automation Equipment Co., Ltd.



Haite website  
www.js-hightech.com.cn

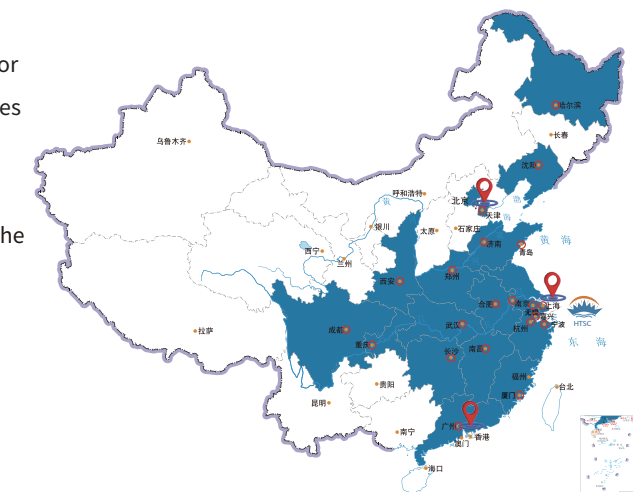


Haite Public account  
Haite industry

Haite's service network covers 18 provinces and cities, with offices and major city service stations. Can provide 7 x 24 hours hotlineechnical support, some cities can be on-site service.

At present, Haite service channels have opened special lines, websites and public accounts. Users can experience fast and convenient self-service through the official website.

- Include:
- Product data download  
→ <http://www.js-hightech.com.cn/companyfile/3/>
  - Driver link download  
→ <http://www.js-hightech.com.cn/companyfile/7/>





笃实 Honest

精技 Skilled

开拓 Pioneering

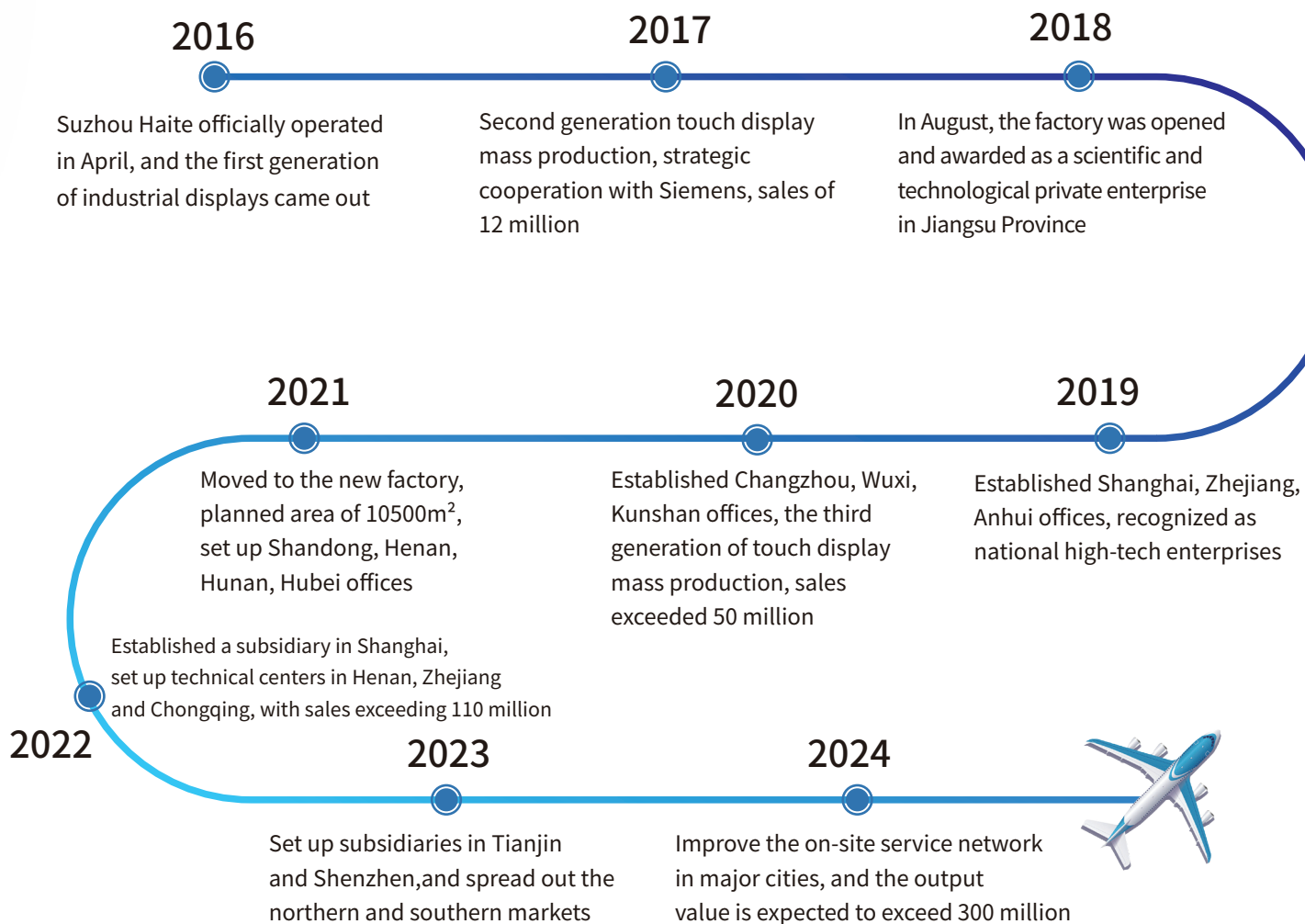
创新 Innovative



## 荣誉证书 CERTIFICATE OF HONOR



## Development course



The company won the ISO9001 international quality system certification, obtained 5 computer software copyright certificates, a total of more than 30 patents.

## 工厂及车间 Factory and workshop





# Promise

公司全体员工的向心力、凝聚力,是公司最大的无形资产,他们充分激发自身潜能、发挥自己所长、以顽强拼搏的精神在自己的岗位辛勤劳作。

The centripetal force and cohesion of all the employees of the company are the biggest intangible assets of the company. They fully stimulate their potential, give full play to their strengths, and work hard in their posts with the spirit of tenacious struggle.



## Sales, service and technical support

Professional and efficient sales staff  
Focus on leading technical support and after-sales service  
7\*24 hours technical response  
Some areas can be on-site service in the same city  
After-sales hotline: 400-0086-772



## Quality assurance

Experienced hardware, software and R&D team  
Complete design and verification process  
Strict QC quality control system  
Three years warranty



## Customization

Configure services to customer orders  
Fast sample delivery in two weeks  
Local manufacturing, faster response, service in place  
Efficient service and reasonable price



## Comprehensive test

Rigorous reliability testing  
Guaranteed 100% burn test over 12 hours  
Ongoing Reliability Testing (ORT)  
BurnIn Test Test system  
High and low temperature cycle test, full function test



## 应用领域 Application area

HTSC® 海特



### Smart medical care

- Medical all-in-one pc
- Medical display
- Smart hospital solutions
- Multifunctional medical computer



### Customized services

- Pre-design service
- Quick proofing templates
- Localization service
- Quality assurance



### Smart factory

- Semiconductor industry
- Automobiles and new energy vehicles
- Printed circuit board industry
- Paper industry
- Electrical equipment
- Metal working



### New energy

- Battery energy storage system
- Photovoltaic power generation operation management
- Environmental facility monitoring
- Oil and gas
- Distributed energy management



### Intelligent transportation

- Electronic toll collection system
- Highway traffic management
- Highway monitoring system
- Science and technology law enforcement
- Intelligent parking information system



### Intelligent equipment manufacturing

- Semiconductor
- AGV/AMR
- AI AOI
- Cobot
- Automotive& EV

## 测试实验设备 Testing Experimental Equipment



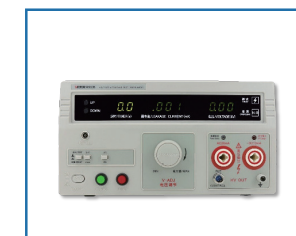
Constant temperature and humidity test chamber



Single wing drop testing machine



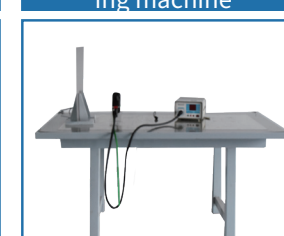
IPX5&X6 rain test chamber



Withstand voltage tester



Electromagnetic shaker



Electrostatic discharge generator



Simulated transport vibration test bench



Combined EMC tester



Combined EMC tester



EMI electromagnetic interference test



Single-phase drop



OS OS Support List(Windows / Linux)

	System Chipset	CE 6.0	Embedded Compact 7 CE 7.0	Embedded Compact 2013	2000	XP Pro	7	8.1	10 32 bit	10 64 bit	11	Server 2003	Server 2008	Server 2012	Server 2016	Server 2019	Linux Kernel
Alder Lake S	Intel® R680									V	V					V	Linux Kernel 5.4
	Intel® H610									V	V						Linux Kernel 5.4
	Intel® Q670									V	V						Linux Kernel 5.4
	Intel® Alder Lake P										V	V					Linux Kernel 5.4
Comet Lake	Intel® Q470									V	V						Linux Kernel 5.4
	Intel® H420E									V	V						Linux Kernel 5.4
	Intel® H410									V	V						Linux Kernel 5.4
Intel® Elkhart Lake										V	V						Linux Kernel 5.4
Intel® Jasper Lake										V	V						Linux Kernel 5.4
Intel® Atom® C3000 R										V				V	V		Linux Kernel 4.4
Intel® Atom® C3000											V			V	V		Linux Kernel 4.4
Intel® Tiger Lake UP3										V	V						Linux Kernel 5.4
Coffee lake R	Intel® C246									V	V			V	V	V	Linux Kernel 4.19
	Intel® Q370									V	V						Linux Kernel 4.19
	Intel® H310									V	V						Linux Kernel 4.19
	Intel® CM246									V	V						Linux Kernel 4.19
	Intel® QM370									V	V						Linux Kernel 4.19
	Intel® HM370									V	V						Linux Kernel 4.19
Intel® Whiskey Lake ULT										V	V		V	V	V	V	Linux Kernel 4.19
Coffee Lake	Intel® C246									V	V			V	V	V	Linux Kernel 4.14
	Intel® Q370									V	V						Linux Kernel 4.14
	Intel® H310									V	V						Linux Kernel 4.14
	Intel® CM246									V	V						Linux Kernel 4.14
	Intel® QM370									V	V						Linux Kernel 4.14
	Intel® HM370									V	V						Linux Kernel 4.14
Intel® Broadwell-DE										V	V		V	V	V		Linux Kernel 3.19
Kaby Lake	Intel® C236									V			V	V	V		Linux Kernel 4.14
	Intel® Q170									V							Linux Kernel 4.14
	Intel® H110									V							Linux Kernel 4.14
	Intel® CM238									V							Linux Kernel 4.14
	Intel® QM175									V							Linux Kernel 4.14
	Intel® HM175									V							Linux Kernel 4.14
	Intel® Kaby Lake ULT									V							Linux Kernel 4.14
Skylake	Intel® C236						V	V		V			V	V	V		Linux Kernel 4.0 (3.2)
	Intel® Q170						V	V		V							Linux Kernel 4.0 (3.2)
	Intel® H110						V	V		V							Linux Kernel 4.0 (3.2)
	Intel® CM236						V	V		V							Linux Kernel 4.0 (3.2)
	Intel® QM170						V	V		V							Linux Kernel 4.0 (3.2)
	Intel® HM170						V	V		V							Linux Kernel 4.0 (3.2)
	Intel® Skylake ULT						V	V		V							Linux Kernel 4.0 (3.2)
	Intel® Broadwell ULT						V	V		V							Linux Kernel 3.19

OS OS Support List(Windows / Linux)

	System Chipset	CE 6.0	Embedded Compact 7 CE 7.0	Embedded Compact 2013	2000	XP Pro	7	8.1	10 32 bit	10 64 bit	11	Server 2003	Server 2008	Server 2012	Server 2016	Server 2019	Linux Kernel
Haswell	Intel® C226					V	V	V		V		V	V	V			Linux Kernel 3.x
	Intel® Q87					V	V	V		V							Linux Kernel 3.x
	Intel® H81					V	V	V		V							Linux Kernel 3.x
	Intel® QM87					V	V	V		V							Linux Kernel 3.x
	Intel® Haswell ULT						V	V		V							Linux Kernel 2.6.3x
Ivy Bridge	Intel® C216					V	V	V		V		V	V	V			Linux Kernel 2.6.3x
	Intel® Q77					V	V	V		V							Linux Kernel 2.6.3x
	Intel® QM77					V	V	V		V							Linux Kernel 2.6.3x
Sandy Bridge	Intel® C206					V	V	V				V	V	V			Linux Kernel 2.6.3x
	Intel® Q67	V				V	V	V									Linux Kernel 2.6.3x
	Intel® B65	V				V	V	V									Linux Kernel 2.6.3x
	Intel® H61	V				V	V	V									Linux Kernel 2.6.3x
	Intel® QM67	V				V	V	V									Linux Kernel 2.6.3x
Intel® Legacy	Intel® HM65	V				V	V	V									Linux Kernel 2.6.3x
	Intel® Q57					V	V										Linux Kernel 2.6.2x
	Intel® QM57					V	V										Linux Kernel 2.6.2x
	Intel® HM55					V	V										Linux Kernel 2.6.2x
	Intel® Apollo Lake N4000/E3900									V							Linux Yocto Project 4.1
Intel® Atom®	Intel® Braswell N3000						V	V	V	V							Linux Kernel 3.14 Android 5.0
	Intel® Bay Trail J1900/N2930/N2807/ E3800		V	V			V	V	V	V							Linux Kernel 3.12 Andriod 4.2 (32 bit) Android 4.4 (64 bit)
	Intel® D2550/ N2600/N2800+ NM10					V	V										Linux Kernel 2.6.35
	Intel® D2550/ N2600/N2800 + ICH10R					V	V										Linux Kernel 2.6.35
	Intel® D525/D425/ N455/N425 + ICH8M	V				V	V										Linux Kernel 2.6.2x
	AMD® V1000-series (Ryzen Embedded) SoC									V							Linux Kernel 4.14
AMD®	AMD® R1000-series (Ryzen Embedded) SoC									V							Linux Kernel 4.14
	AMD® R-series (MERLIN FALCON) SoC						V	V		V							Linux Kernel 3.13
	AMD® G-series (eKABINI) SoC	V	V	V		V	V	V		V							Linux Kernel 3.x
	AMD® Geode LX800 + CS5536					V											Linux Kernel 2.6.18



Microserver D1500 family CPU List

Microserver D1500 series CPU caches

Supported Sockets	Brand	Process	Cores/Threads	Processor Number	Processor Base Frequency	Cache	TDP	Processor Graphics	Graphics Base Frequency	Memory Types	Chipset	
FCBGA 1667	Xeon® E3	22nm Broadwell	16/32	D-1577	1.30 GHz	24 MB	45 W	None	None	DDR4-2133, DDR3L-1600		
			16/32	D-1571	1.30 GHz	24 MB	45 W					
			12/24	D-1567	2.10 GHz	18 MB	65 W					
			12/24	D-1559	1.50 GHz	18 MB	45 W					
			12/24	D-1557	1.50 GHz	18 MB	45 W					
			8/16	D-1548	2.00 GHz	12 MB	45 W					
			8/16	D-1539	1.60 GHz	12 MB	35 W			DDR4-2133, DDR3L-1600		
			8/16	D-1537	1.70 GHz	12 MB	35 W					
			4/8	D-1529	1.30 GHz	6 MB	20 W					
			6/12	D-1528	1.90 GHz	9 MB	35 W					
			4/8	D-1527	2.20 GHz	6 MB	35 W					
			4/8	D-1518	2.20 GHz	6 MB	35 W					
	Pentium®		4/8	D1519	1.50 GHz	6 MB	25 W			DDR4-2133, DDR3L-1600		
			4/8	D1517	1.60 GHz	6 MB	25 W					
			2/2	D1509	1.50 GHz	3 MB	19 W					
			2/4	D1508	2.20 GHz	3 MB	25 W					
			2/2	D1507	1.20 GHz	3 MB	20 W					

Denverton Atom® C3000 Family CPU List

Denverton Atom® C3000 series cpu list

Supported Sockets	Brand	Process	Cores/Threads	Processor Number	Processor Base Frequency	Cache	TDP	Processor Graphics	Graphics Base Frequency	Memory Types	Chipset
FCBGA1310	Atom®	14nm Denverton	16/16	C3958	2.0GHz	16MB	31W	None	None	DDR4 2400	None
			12/12	C3858	2.0GHz	12MB	25W	None	None		
			8/8	C3758	2.2GHz	16MB	25W	None	None		
			4/4	C3558	2.2GHz	8MB	16W	None	None	DDR4 2133	
			4/4	C3538	2.1GHz	8MB	15W	None	None		
			2/2	C3338	1.5GHz	4MB	8.5W	None	None	DDR4 1866	
			2/2	C3336	1.5GHz	4MB	11W	None	None		
			8/8	C3758R	2.4GHz	16MB	26W	None	None	DDR4 2400	
			4/4	C3558R	2.4GHz	8MB	17W	None	None		
			4/4	C3436L	1.3GHz	8MB	10.75W	None	None	DDR4 1866	
			2/2	C3338R	1.8GHz	4MB	10.5W	None	None		

Workstation Xeon® E3/E/W Series CPU List

Work stationXeon® E3/E/W series cpu list

Supported Sockets	Brand	Process	Cores/Threads	Processor Number	Processor Base Frequency	Cache	TDP	Processor Graphics	Graphics Base Frequency	Memory Types	Chipset
FCLGA2066	Xeon® W	14nm Cascade Lake	18/36	W-2295	3.00 GHz	24.75 MB	165 W	None	None	DDR4 2933	C422
			14/28	W-2275	3.30GHz	19.25 MB	165 W	None	None		
			12/24	W-2265	3.50 GHz	19.25 MB	165 W	None	None		
			10/20	W-2255	3.70 GHz	19.25 MB	165 W	None	None		
			8/16	W-2245	3.90 GHz	16.5 MB	155 W	None	None		
			6/12	W-2235	3.80 GHz	8.25 MB	130W	None	None		
			4/8	W-2225	4.10 GHz	8.25 MB	105W	None	None		
			4/8	W-2223	3.60 GHz	8.25 MB	120W	None	None	DDR4 2666	
FCLGA3647	Xeon® W	14nm Cascade Lake	28/56	W-3275	2.50 GHz	38.5 MB	205W	None	None	DDR4 2933	C621
			24/48	W-3265M	2.70 GHz	33 MB	205W	None	None		
			24/48	W-3265	2.70GHz	33MB	205W	None	None		
			16/32	W-3245M	3.20 GHz	22MB	205W	None	None		
			16/32	W-3245	3.20 GHz	22 MB	205W	None	None		
			12/24	W-3235	3.30 GHz	19.25 MB	180W	None	None	DDR4-2666	CA22
			8/16	W-3225	3.70 GHz	16.5 MB	160W	None	None		
			8/16	W-3223	3.50 GHz	16.5 MB	160W	None	None		C621
FCLGA1151	Xeon® E	14nm Coffee lake	6/12	E-2176G	3.70 GHz	12MB	80W	Intel® UHD Graphics P630	350 MHz	DDR4-2666	C246/ C242
			4/4	E-2124G	3.40 GHz	8MB	71W		350 MHz		
FCLGA1151	Xeon® E3	14nm Kaby Lake	4/8	E3-1275 V6	3.8GHz	8 MB	73W	Intel® HD Graphics P630	350 MHz	DDR4-2400, DDR3L-1866	C236
FCLGA1151	Xeon® E3	14nm Skylake	4/8	E3-1515MV5	2.80 GHz	8 MB	45 W	Intel® Iris™ Pro Graphics P580	350 MHz	DDR4-2133, LPDDR3-1866, DDR3L-1600	C236
			4/8	E3-1505MV5	2.80 GHz	8 MB	45 W	Intel® HD Graphics P530			
			4/8	E3-1578LV5	2.00 GHz	8 MB	45 W	Intel® Iris™ Pro	700 MHz	DDR3L, DDR4 2133MHz at 1.2V	
			4/8	E3-1558LV5	1.90 GHz	8 MB	45 W	Intel® Iris™ Pro	650 MHz		
			4/8	E3-1505LV5	2.00 GHz	8 MB	25 W	Intel® HD Graphics P530	350 MHz	DDR4-2133, LPDDR3-1866, DDR3L-1600	
			4/8	E3-1268LV5	2.40 GHz	8 MB	35 W			DDR4-1866/2133, DDR3L-1333/1600 @1.35V	
LGA1151	Xeon® E3	14nm Skylake	4/8	E3-1275V5	3.60 GHz	8 MB	80 W	Intel® HD Graphics P530	400 MHz	DDR3L-1333/1600 @1.35V	C226
LGA1150	Xeon® E3	22nm Haswell	4/4	E3-1225V3	3.2 GHz	8 MB	84 W	Intel® HD Graphics P4600	350 MHz	DDR3 and DDR3L 1333/1600 at 1.5V	
			4/8	E3-1268LV3	2.3 GHz	8 MB	45 W	Intel® HD Graphics 4600	350 MHz	DDR3 1333/1600	
			4/8	E3-1275LV3	2.7 GHz	8 MB	45 W	Intel® HD Graphics 4600	350 MHz	DDR3 and DDR3L 1333/1600 at 1.5V	
LGA1155	Xeon® E3	22nm Ivy Bridge	4/8	E3-1275V2	3.5 GHz	8 MB	77 W	-	1.25 GHz	DDR3-1333/1600	C206/ C21
			4/4	E3-1225V2	3.2 GHz	8 MB	77 W	-	1.25 GHz		
			4/4	E3-1220V2	3.1 GHz	8 MB	69 W	-	-		
			4/4	E3-1220LV2	2.3 GHz	3 MB	17 W	-	-		
LGA1155	Xeon® E3	32nm Sandy Bridge	4/8	E3-1275	3.4 GHz	8 MB	95 W	-	1.35 GHz	DDR3-1066/1333	C206/ C216
			4/4	E3-1225	3.1 GHz	6 MB	95 W	-	1.35 GHz		

Desktop Core™ i9/i7/i5/i3/  
Pentium®/Celeron® CPU List

Supported Sockets	Brand	Process	Cores/Threads	Processor Number	Processor Base Frequency	Cache	TDP	Processor Graphics	Graphics Base Frequency	Memory Types	Chipset
FCLGA1700	Core™ i9	14nm Alder Lake-S	16/24	i9-12900K	3.20 GHz(Performance-core) 2.40 GHz(Efficient-core)	14 MB	125W	Intel® UHD Graphics 770	300 MHz	DDR5 4800 DDR4 3200	R680/H610
				i9-12900	2.40 GHz(Performance-core) 1.80 GHz(Efficient-core)	14 MB	65W				
				i9-12900E	2.30 GHz(Performance-core) 1.70 GHz(Efficient-core)	30 MB	65W				
				i9-12900TE	1.10 GHz(Performance-core) 1.00 GHz(Efficient-core)	30 MB	35W				
	Core™ i7		12/20	i7-12700K	3.60 GHz(Performance-core) 2.70 GHz(Efficient-core)	12 MB	125W	Intel® UHD Graphics 770			
				i7-12700	2.10GHz(Performance-core) 1.60GHz(Efficient-core)	12 MB	65W				
				i7-12700E	2.10GHz(Performance-core) 1.60GHz(Efficient-core)	25 MB	65W				
				i7-12700TE	1.40GHz(Performance-core) 1.00GHz(Efficient-core)	25 MB	35W				
	Core™ i5		6/12	i5-12600K	2.80 GHz	9.5 MB	125W	Intel® UHD Graphics 770			
				i5-12500	3.00 GHz	7.5MB	65W				
				i5-12500E	2.90GHZ	18MB	65W				
				i5-12500TE	1.90GHZ	18MB	35W				
	Core™ i3		4/8	i3-12300	3.50 GHz	5MB	60W	Intel® UHD Graphics 770			
				i3-12100E	3.20GHZ	12MB	60W				
				i3-12100TE	2.10GHz	12MB	35W				
	Pentium®		2/4	G7400E	3.60 GHz	6MB	46W	Intel® UHD Graphics 770		DDR5 4800 DDR4 3200	
	Celeron®		2/2	G6900E	3.00 GHz	4 MB	46W			DDR5 4800 DDR4 3200	

Desktop Core™ i9/i7/i5/i3/  
Pentium®/Celeron® CPU List

Supported Sockets	Brand	Process	Cores/Threads	Processor Number	Processor Base Frequency	Cache	TDP	Processor Graphics	Graphics Base Frequency	Memory Types	Chipset
FCLGA1200	Core™ i9	14nm Comet Lake-S	8/16	i9-11900K	3.50 GHz	16MB	125W	Intel® UHD Graphics 750	350 MHz	DDR4-3200	W480E/ W480/ Q470E/ Q470/ H420E/H410
				i9-11900	2.50 GHz	16MB	65W				
				i9-11900T	1.50 GHz	16MB	35W				
	Core™ i7		8/16	i7-11700K	3.60 GHz	16MB	125W	Intel® UHD Graphics 750			
				i7-11700	2.50 GHz	16MB	65W				
				i7-11700T	1.40GHZ	16MB	35W				
	Core™ i5		6/12	i5-11600K	3.90 GHz	12 MB	125 W	Intel® UHD Graphics 750			
				i5-11500	2.50 GHz	12 MB	65W				
				i5-11500T	1.50 GHz	12 MB	35W				
	Core™ i3		8/16	i9-11300K	3.50 GHz	16 MB	125W	Intel® UHD Graphics 750			
				i3-11300	2.50 GHz	16 MB	35W				
				i3-11300T	1.50 GHz	16MB	65W				
	Core™ i9		10/20	i9-10900K	3.70 GHz	20 MB	125 W	Intel® UHD Graphics 630			
				i9-10900	2.80GHz	20 MB	65W				
				i9-10900E	2.80GHz	20 MB	65W				
				i9-10900TE	1.80GHz	20 MB	35W				
	Core™ i7		8/16	i7-10700K	3.80 GHz	16 MB	125 W	Intel® UHD Graphics 630			
				i7-10700	2.90GHz	16 MB	65W				
				i7-10700E	2.90GHz	16 MB	65W				
				i7-10700TE	2.00GHz	16MB	35W				
	Core™ i5		6/12	i5-10600K	4.10 GHz	12 MB	125W	Intel® UHD Graphics 630			
				i5-10500	3.10GHz	12 MB	65W				
				i5-10500E	3.10GHz	12 MB	65W				
				i5-10500TE	2.30GHz	12MB	35W				
	Core™ i3		4/8	i3-10300	3.7 GHz	8MB	65W	Intel® UHD Graphics 630			
				i3-10100E	3.2 GHz	8MB	65W				
				i3-10100TE	2.3 GHz	8MB	35W				
	Pentium®		2/4	G6400E	3.8 GHz	4MB	58W	Intel® UHD Graphics 630			
2/4		G6400TE	3.2 GHz	4MB	35W						
Celeron®	2/2	G5900E	3.2 GHz	2MB	58W	Intel® UHD Graphics 630					
	2/2	G5900TE	3.0 GHz	2MB	35W						
FCLGA1151	Core™ i9	14nm Coffee Lake refresh	8/16	i9-9900K	3.60 GHz	16MB	95W	N/A	N/A	DDR4-2666	H310/Q370/ C246
			8/16	i9-9900T	2.10 GHz	16MB	35W	Intel® UHD Graphics 630			
			8/16	i9-9900	3.10 GHz	16MB	65W				
	Core™ i7	14nm Coffee Lake refresh	8/8	9700TE	1.80 GHz	12MB	35W	Intel® UHD Graphics 630			
			8/8	i7-9700K	3.60 GHz	12MB	95W				
			8/8	i7-9700	3.00 GHz	12MB	65W				
	Core™ i5	14nm Coffee Lake refresh	6/6	i5-9600K	3.70 GHz	9MB	95W	Intel® UHD Graphics 630			
			6/6	i5-9500	3.00 GHz	9MB	65W				
			6/6	i5-9500T	2.20 GHz	9MB	35W				
	Core™ i3	14nm Coffee Lake	4/4	i3-9100	3.60 GHz	6MB	65W	Intel® UHD Graphics 630	DDR4-2400	Q370/C246	
4/4			i3-9100T	3.10 GHz	6MB	35W					



Desktop Core™ i9/i7/i5/i3/  
Pentium®/Celeron® CPU List

Supported Sockets	Brand	Process	Cores/Threads	Processor Number	Processor Base Frequency	Cache	TDP	Processor Graphics	Graphics Base Frequency	Memory Types	Chipset	
FCLGA1151	Core™ i9	14nm Coffee Lake	8/16	I9-9900k	3.60 GHz	16MB	95 W	Intel® HD Graphics 630	350 MHz	DDR4-2866	H310/Q370	
	Core™ i7		8/8	I7-9700K	3.60 GHz	12MB	95 W		350 MHz	DDR4-2400		
			6/12	I7-8700K	3.70 GHz	12MB	95 W		350 MHz			
			6/12	I7-8700	3.20 GHz	12MB	65 W		350 MHz			
	Core™ i3		4/4	I3-8300	3.70GHz	8MB	62 W		350 MHz	DDR4-2666		
			4/4	I3-8100	3.60 GHz	6MB	65 W		350 MHz			
			6/6	I5-9600K	3.70 GHz	9MB	95 W		350 MHz			
	Core™ i5		6/6	I5-8600K	3.60 GHz	9MB	95 W		350 MHz			H310
			6/6	I5-8500T	2.10 GHz	9MB	35 W		350 MHz			
			6/6	I5-8500	3.00 GHz	9MB	65 W		350 MHz			
	Pentium®	2/4	G5400T	3.10 GHz	4MB	35 W	Intel® HD Graphics 610	350 MHz	DDR4-2400		H310/Q370	
		2/4	G5400	3.70 GHz	4MB	58 W		350 MHz				
	Celeron®	2/2	G4900	3.10GHz	2 MB	54 W		350 MHz				
	Core™ i7	14nm Kaby Lake	4/8	I7-7700	3.6GHz	8 MB	65 W	Intel® HD Graphics 630	350 MHz	DDR3-2133/2400, DDR3L-1333/1600 @ 1.5V	C236/Q170/H110	
			4/8	I7-7700K	4.2GHz	8 MB	91 W		350 MHz			
			4/8	I7-7700T	2.9GHz	8 MB	35 W		350 MHz			
			4/8	I7-6700K	4.00 GHz	8 MB	91 W	Intel® HD Graphics 530	350 MHz			
			4/8	I7-6700T	2.80 GHz	8 MB	35 W		350 MHz			
			4/8	I7-6700	3.40 GHz	8 MB	65 W		350 MHz			
		Core™ i5	4/4	I5-7600	3.5GHz	6 MB	65 W	Intel® HD Graphics 630	350 MHz			
			4/4	I5-7500	3.4GHz	6 MB	65 W		350 MHz			
			4/4	I5-7500T	2.7GHz	6 MB	35 W		350 MHz			
			14nm SkyLake	4/4	I5-6600K	3.50 GHz	6 MB	91 W	Intel® HD Graphics 580			350 MHz
				4/4	I5-6500	3.20 GHz	6 MB	65 W	Intel® HD Graphics 530			350 MHz
				4/4	I5-6500T	2.50 GHz	6 MB	35 W	350 MHz			
		Core™ i3	14nm Kaby Lake	2/4	I3-7300	4.0GHz	4MB	51 W	Intel® HD Graphics 630			350 MHz
				2/4	I3-7300T	3.5GHz	4 MB	35 W				350 MHz
			14nm Lake	2/4	I3-6100	3.70GHZ	3 MB	51 W	Intel® HD Graphics 530			350 MHz
	2/4			I3-6100T	3.20 GHz	3 MB	35 W	350 MHz				

Desktop Core™ i9/i7/i5/i3/  
Pentium®/Celeron® CPU List

Supported Sockets	Brand	Process	Cores/Threads	Processor Number	Processor Base Frequency	Cache	TDP	Processor Graphics	Graphics Base Frequency	Memory Types	Chipset		
FCLGA1151	Pentium®	14nm Kaby Lake	2/4	G4500	3.50 GHz	3 MB	51W	Intel® HD Graphics 630	350 MHz	DDR4-2133/2400, DDR3L-1333/1600 @1.35V	C236/ Q170/		
		14nm SkyLake	2/2	G4400	3.30 GHz	3 MB	54W	Intel® HD Graphics 510					
	Celeron®	14nm Kaby Lake	2/2	G3930	2.9GHz	2MB	51W	Intel® HD Graphics 610				DDR4-2133, DDR3L-1333/1600 @1.35V	H110
		Core™ i7		2/2	G3900	2.80 GHz	2 MB	51 W					
	Core™ i7			2/4	I7-4770	3.4 GHz	8MB	84 W		Intel® HD Graphics 4600			
				4/8	I7-4770S	3.1 GHz	8MB	65 W					
				4/8	I7-4790	3.6 GHz	8MB	84 W					
			Core™ i5		4/4	i5-4570	3.2 GHz	6 MB			84 W	200 MHz	
	Core™ i5				4/4	i5-4570S	2.9 GHz	6 MB		65 W	DDR3-1333/1600, DDR3L-1333/1600 @1.5V		C226/ Q87/ H81
				4/4	i5-4590	3.3 GHZ	6 MB	84 W					
		Core™ i3		2/4	i3-4330	3.5 GHz	4 MB	54 W	Intel® HD Graphics 4400				
	Core™ i3			2/4	i3-4170	3.7 GHz	3MB	54 W					
				2/4	i3-4130	3.4 GHz	3 MB	54 W					

Desktop Core™ i9/i7/i5/i3/  
Pentium®/Celeron® CPU List

Supported Sockets	Brand	Process	Cores/Threads	Processor Number	Processor Base Frequency	Cache	TDP	Processor Graphics	Graphics Base Frequency	Memory Types	Chipset
FCLGA1150	Pentium®	22nm Haswell	2/2	G3420	3.2 GHz	3 MBI	53 W	Intel® HD Graphics	350 MHz	DDR3-1333/1600, DDR3L-1333/1600@1.5V	C226/Q87/
	Celeron®		2/2	G1820	2.7 GHz	2 MBI	53 W		350 MHz	DDR3-1333, DDR3L-1333 @ 1.5V	
	Core™ i7	22nm Ivy Bridge	4/8	I7-3770	3.4 GHz	8 MB	77 W	-	1.15 GHz	DDR3-1333/1600	Q77/Q67/B65/H61
		32nm Sandy Bridge	4/8	I7-2600	3.4 GHz	8 MB	95 W	-	1.35 GHz	DDR3-1066/1333	
	Core™ i5	22nm Ivy Bridge	4/4	I5-3570	3.4 GHz	6 MB	77 W	-	1.15 GHz	DDR3-1333/1600	
			4/4	I5-3550S	3 GHz	6 MB	65W	-	1.15 GHz	DDR3-1333/1600	
			4/4	I5-3550	3.3 GHz	6 MB	77W	-	1.15 GHz	DDR3-1333/1600	
	Core™ i5	32nm Sandy Bridge	4/4	I5-2400	3.1 GHz	6 MB	95 W	-	1.1 GHz	DDR3-1066/1333	

Desktop Core™ i9/i7/i5/i3/  
Pentium®/Celeron® CPU List

Supported Sockets	Brand	Process	Cores/Threads	Processor Number	Processor Base Frequency	Cache	TDP	Processor Graphics	Memory Types	Chipset
LGA1155	Core™ i3	22nm	2/4	I3-3220	3.3 GHZ	3 MB	55 W	1.05 GHz	DDR3-1333/1600	Q77/Q67/B65/H61
		Ivy Bridge								
		32nm	2/4	I3-2120	3.3 GHZ	3 MB	65 W	1.1 GHz	DDR3-1066/1333	
		Sandy Bridge								
	Pentium®	22nm	2/4	G2120	3.1 GHz	3 MB	55 W	1.05 GHz	DDR3-1333/1600	
		Ivy Bridge								
		32nm	2/2	G850	2.9 GHz	3 MB	65 W	1.1 GHz	DDR3-1066/1333	
		Sandy Bridge								
	Celeron®	22nm	2/2	G1620	2.7 GHz	2 MB	55 W	1.05 GHz	DDR3-1066	
		Ivy Bridge								
		22nm	2/2	G540	2.5 GHz	2 MB	65 W	1 GHz		
		Sandy Bridge								

Desktop Core™ i9/i7/i5/i3/  
Pentium®/Celeron® CPU List

Supported Sockets	Brand	Process	Cores/Threads	Processor Number	Processor Base Frequency	Cache	TDP	Processor Graphics	Graphics Base Frequency	Memory Types	Chipset	
LGA 1700	Core™ i9	14nm Alder Lake-S	24/32	I9-13900K	3.00 GHz(Performance-core) 2.40 GHz(Efficient-core)	16MB	125W	Intel® UHD Graphics 770	300MHz	DDR5 4800 DDR4 3200	R680/ Q670/ H610	
			24/32	I9-13900	2.00 GHz(Performance-core) 1.80 GHz(Efficient-core)	12MB	65W					
	Core™ i7		16/24	I7-13700K	3.60 GHz(Performance-core) 2.70 GHz(Efficient-core)	16MB	125W					
			16/24	I7-13700	2.10 GHz(Performance-core) 1.60 GHz(Efficient-core)	16MB	125W					
	Core™ i5		14/20	I5-13600K	3.50 GHz(Performance-core) 1.00 GHz(Efficient-core)	16MB	125W					
			14/20	I5-13500	2.50 GHz(Performance-core) 1.00 GHz(Efficient-core)	12MB	65W					
			4/8	I3-13100	3.40 GHz(Performance-core) 1.00 GHz(Efficient-core)	8MB	60W					

ULT/UP3 CPU List

Supported Sockets	Brand	Process	Cores/Threads	Processor Number	Processor Base Frequency	Cache	TDP	Processor Graphics	Graphics Base Frequency	Memory Types	Chipset	
FCBGA1449	Core™ i7	10nm Tiger Lake-UP3	4/8	i7-1185G7E	2.8GHz/ 1.8GHz/ 1.2GHz	12MB	28W/ 15W/ 12W	Intel® Iris® Xegraphics 96 EU 4x4k or 2x8k Displays 2 VDBOX	1.35 GHz	DDR4-3200, LPDDR4x-4267	-	
				i7-1185GRE						DDR4-3200, LPDDR4x-4267, In-Band ECC	-	
	Core™ i5		4/8	i5-1145G7E	2.6GHz/ 1.5GHz/ 1.1GHz	8MB	28W/ 15W/ 12W	Intel® Iris® Xegraphics 80 EU 4x4k or 2x8k Displays 2 VDBOX	1.30 GHz	DDR4-3200, LPDDR4x-4267	-	
				i5-1145GRE						DDR4-3200, LPDDR4x-4267, In-Band ECC	-	
	Core™ i3		2/4	i3-1115G4E	3.0GHz/ 2.2GHz/ 1.7 GHz	6MB	28W/ 15W/ 12W	Intel® UHD Graphics 48EU 4x4k or 1x8k Displays 2 VDBOX	1.25 GHz	DDR4-3200, LPDDR4x-3733	-	
				i3-1115GRE						DDR4-3200, LPDDR4x-3733, In -Band ECC	-	
FCBGA1528	Core™ i7	14nm Whiskey Lake	4/8	i7-8565U	1.8GHz	8MB	15W	Intel® UHD Graphics 620	300 MHz	DDR4-2400, LPDDR3-2133	-	
			4/8	i7-8665UE	1.7GHz	8MB	15W				-	
	Core™ i5		4/8	i5-8265U	1.6GHz	6MB	15W				-	
			4/8	i5-8365UE	1.6GHz	6MB	15W				-	
			Core™ i3	2/4	i3-8145U	2.10 GHz	4MB				15W	-
	2/4			i3-8145UE	2.2GHz	4MB	15W				-	
	Celeron®		2/2	4305UE	2.00GHz	2MB	15W	Intel® UHD Graphics610		DDR4-2133, LPDDR3-1866	-	
FCBGA1356	Core™ i7	14nm kaby Lake	2/4	i7-7600U	2.8GHz	4MB	15W	Intel® HD Graphics 620	300 MHz	DDR4-2133, LPDDR3-1866, DDR3L-1600	-	
	Core™ i5		2/4	i7-7500U	2.70 GHz	4MB	15 W	Intel® HD Graphics 620				
			2/4	i5-7300U	2.6GHz	3MB	15W					
			2/4	i5-7200U	2.5GHz	3MB	15W					
	Core™ i3		2/4	i3-7100U	2.40 GHz	3MB	15W					
	Celeron®	2/2	3965U	2.2GHz	2MB	15W	Intel® HD Graphics 610					
	Core™ i7	14nm Sky Lake	2/4	i7-6600U	2.60 GHz	4 MB	15 W	Intel® HD Graphics 520	300 MHz			
	Core™ i5		2/4	i5-6300U	2.40 GHz	3 MB	15 W					
	Core™ i3		2/4	i3-6100U	2.30 GHz	3 MB	15W					
Celeron®	2/2		3955U	2.00 GHz	2 MB	15W	Intel® HD Graphics 510					
FCBGA1168	Core™ i7	14nm Broadwell	2/4	i7-56506	2.2 GHz	4 MB	15 W	Intel® HD Graphics 6000	300 MHz	DDR3L 1333/1600 , LPDDR3 1600/1866	-	
	Core™ i5		2/4	i5-53500	1.8GHz	3MB	15W				-	
	Core™ i3		2/4	i3-50100	2.1 GHz	3 MB	15 W	Intel® HD Graphics 5500			-	
	Celeron®		2/2	3765U	1.9 GHz	2MB	15W				Intel® HD Graphics	-
	Core™ i7	22nm Haswell	2/4	i7-4650U	1.7 GHz	4 MB	15W	Intel® HD Graphics 5000	200 MHz	PPR3L 1333/1600, LPDDR3 1333/1600	-	
	Core™ i5		2/4	i5-4300	1.9 GHz	3 MB	15W				-	
	Core™ i3		2/4	i3-4010U	1.7 GHz	3 MB	15 W	Intel® HD Graphics 4400			-	
	Celeron®		2/2	2980U	1.6 GHz	2 MB	15W				Intel® HD Graphics	-

Mobile Core™ i7/i5/i3/Celeron® CPU List

Supported Sockets	Brand	Process	Cores/Threads	Processor Number	Processor Base Frequency	Cache	TDP	Processor Graphics	Graphics Base Frequency	Memory Types	Chipset	
FCLGA1151	Xeon® E	14nm Coffee Lake refresh	8/16	E-2288G	3.70 GHz	16MB	95W	Intel® UHD Graphics P630	350MHz	DDR4-2666	C246	
			6/12	E-2286G	4.00 GHz	12MB	95W	N/A	N/A		C240	
			8/16	2278GE	3.30 GHz	16MB	80W	Intel® UHD Graphics P630	350MHz		C246	
			8/16	2278GEL	2.00 GHz	16MB	35W		350MHz		C240	
			8/16	E-2278G	3.40 GHz	16MB	80W	N/A	N/A		C240	
			6/12	E-2276G	3.80 GHz	12MB	80W	Intel® UHD Graphics P630	350MHz		C246	
			4/8	E-2274G	4.00 GHz	8MB	83W		350MHz			
			6/12	E-2246G	3.60 GHz	12MB	80W		350MHz			
			4/8	E-2244G	3.80 GHz	8MB	71W		350MHz			
			6/12	E-2236	3.40 GHz	12MB	80W	N/A	N/A		C240	
			4/8	E-2234	3.60 GHz	8MB	71W		N/A		C240	
			6/6	E-2226G	3.40 GHz	12MB	80W	Intel® UHD Graphics P630	350MHz		C246	
			6/6	E-2226GE	3.40 GHz	12MB	80W		350MHz		C240	
			4/4	E-2224	3.40 GHz	8MB	71W	N/A	N/A		C240	
FCLGA1440	Xeon® E	14nm Kabylake refresh	4/8	E3-1505MV6	3.00 GHz	8 MB	45W	Intel® UHD Graphics P630	350 MHz	DDR4-2400, LPDDR3-2133, DDR3L-1600	CM236	
	Xeon® E3	14nm Kabylake	4/8	E3-1505LV6	2.20 GHz	8 MB	25 W	Intel® HD Graphics P630		DDR4-2400		
			4/4	E3-1501LV6	2.10 GHz	6 MB	25 W					
			4/4	E3-1501MV6	2.90 GHz	6 MB	45 W					
		14nm Skylake	4/8	E3-1515MV5	2.80 GHz	8 MB	45 W	Intel® Iris™ Pro Graphics P580				DDR4-2133, LPDDR3-1866, DDR3L-1600
			4/8	E3-1505MV5	2.80 GHz	8 MB	45 W	Intel® HD Graphics P530				

Mobile Core™ i7/i5/i3/Celeron® CPU List

Work stationXeon®E3/E/ W series cpu list

Supported Sockets	Brand	Process	Cores/Threads	Processor Number	Processor Base Frequency	Cache	TDP	Processor Graphics	Graphics Base Frequency	Memory Types	Chipset
FCBGA1440	Core™ i7	14nm Coffee lake	6/12	i7-8850H	2.60 GHz	9MB	45W	Intel® UHD Graphics 630	350 MHz	DDR4-2666, LPDDR3-2133	CM246
	Core™ i5		4/8	i5-8400H	2.50 GHz	8MB	45W			DDR4-2666	
	Core™ i3		4/4	i3-8100H	3.00 GHz	6MB	35W			DDR4-2666, LPDDR3-2133	
FCBGA1440	Core™ i5	14nm Kabylake	4/4	i5-7442EQ	2.10 GHz	6 MB	25W	Intel® HD Graphics 630	350 MHz	DDR4-2400	CM236
			4/4	i5-7440EQ	2.90 GHz	6 MB	45W				
	Core™ i3		2/4	i3-7102E	2.10 GHz	3 MB	25W				
			2/4	i3-7100E	2.90 GHz	3 MB	35W				
FCBGA1440	Core™ i7	14nm Skylake	4/8	i7-6820EQ	2.80 GHz	8 MB	45 W	Intel® HD Graphics 530	350MHz	DDR4-2133, LPDDR3-1866, DDR3L-1600	QM170/ HM170
			4/8	i7-6822EQ	2.00 GHz	8 MB	25 W	Intel® HD Graphics 530		DDR4-2133, LPDDR3-1866, DDR3L-1600	QM170/ HM170
	Core™ i5		4/4	i5-6442EQ	1.90 GHz	6 MB	25 W				
			4/4	i5-6440EQ	2.70 GHz	6 MB	45 W				
	Core™ i3		2/4	i3-6102E	1.90 GHz	3 MB	25 W	Intel® HD Graphics 510			
			2/4	i3-6100E	2.70 GHz	3 MB	35 W				
			2/4	i3-6100H	2.70 GHz	3 MB	35 W				
	Celeron®		2/2	G3900E	2.40 GHz	2 MB	35 W	Intel® HD Graphics 510		DDR4-1866/2133, DDR3L-1333/1600 @ 1.35V	
			2/2	G3902E	1.60 GHz	2 MB	25 W				
FCBGA1364	Core™ i7	22nm Haswell	4/8	i7-4700EC	2.7 GHz	8 MB	43 W	Intel® HD Graphics 4600	350 MHz	DDR3L 1333/1600	QM87/ HM86
			4/8	i7-4700EQ	2.4 GHz	6 MB	47 W	None			
			4/8	i7-4702EC	2 GHz	8 MB	27 W				
	Core™ i5		2/4	i5-4422E	1.8 GHz	3 MB	25 W	Intel® HD Graphics 4600			
			2/4	i5-4410E	2.9 GHz	3 MB	37 W				
			2/4	i5-4402EC	2.5 GHz	4 MB	27 W				
			2/4	i5-4402E	1.6 GHz	3 MB	25 W				
			2/4	i5-4400E	2.7 GHz	3 MB	37 W				
	Core™ i3		2/4	i3-4100E	2.4 GHz	3 MB	37 W	Intel® HD Graphics 4600			
			2/4	i3-4102E	1.6 GHz	3 MB	25 W				
			2/4	i3-4110E	2.6 GHz	3 MB	37 W				
			2/4	i3-4112E	1.8 GHz	3 MB	25 W				
			2/2	2002E	1.5 GHz	2 MB	25 W				
	Celeron®		2/2	2000E	2.2 GHz	2 MB	37 W	Intel® HD Graphics			
Core™ i7		22nm Sandy Bridge	4/8	i7-3610QE	2.3 GHz	6 MB	45 W	-	950 MHz	DDR3/L 1333/1600	QM77/ QM67/ HM65
			4/8	i7-2710QE	2.1 GHz	6 MB	45W	1.2 GHz	DDR3-1066/1333/1600		



# HPC-700L

## Widescreen industrial all-in-one



Specification

CPU	Intel® Bay Trail Celeron®J1900 processor（2.0Ghz）
Memory	1 X DDR3L 1333 MHz SODIMM up to 8 GB
Storage	1 X mSATA
Network	2 X Intel i210 (10/100/1000 Mbps)
COM	1 X RS232
USB	3 X USB2.0 , 1x USB3.0
Display	1 X VGA, 1 x HDMI
Expansion slot	1 X Mini PCIE (WIFI+4G)
System	Windows7 32/64bit, Windows10 64bit, Linux

Overall size	213.9mm X 142.9mm X 52mm
Hole size	196mm X 132mm
Weight	About1.65Kg

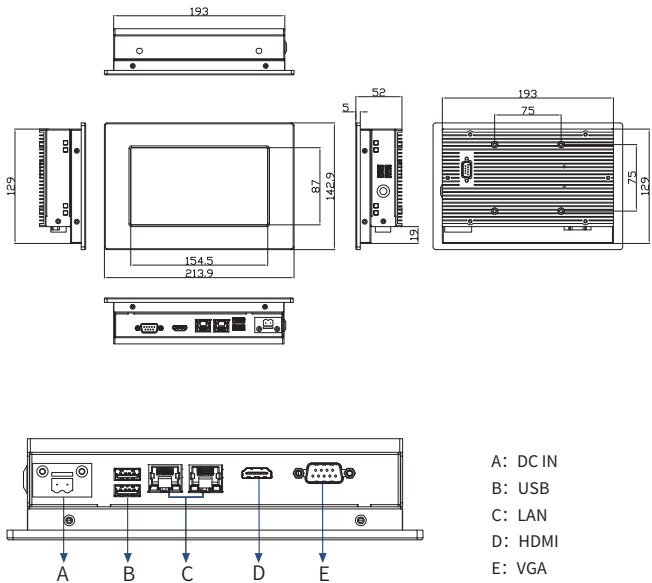
Display type	7" TFT LCD
Resolution	1024*600 (16:9)
Viewing angle	70/70/50/70 (Typ.)(CR≥10)
Brightness	500 cd/m² (Typ.)
Contrast ratio	500:1 (Typ.)(Transmission)

Touch type	Resistor screen
Controller	USB interface
Durability	More than 3,500w times
Power input	12V DC

Product characteristics

- 7 inch fanless design
- Support four-wire resistance screen
- Use Intel® Bay Trail Celeron®J1900
- 1 X COM, 4 X USB, 2 X Intel gigabit network port
- Support for embedded and VESA installation
- DC 12V power supply

HPC-700L Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmPeak and peak value
Shock	10G/peak(11ms sec)

Ordering information

HPC-700L-R10 (Resistance) /Resolution ratio 1024\*600 (16:9)

Packing list

Host machine	HPC-700L*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	FSP065-RHAC2*1

# HPC-1010L

## Widescreen industrial all-in-one



Specification

CPU	Intel Elkhart Lake Celeron J6412 CPU, Quad-core up to 2.6GHz,TDP 12W Max
Memory	1 X DDR4 SO-DIMM, 2666/2933/3200MHZ 32GB MAX
Storage	1 X M.2(Key-M,2242/2280 NVMe SSD)
Network	2 X RJ45, i225 Ethernet Controller
COM	4 X RS232 (COM1&COM2 optional RS485)
USB	4 X USB(Rear)
Audio	ALC897(3W4Ω)Line Out&Line In
Display	2 X HDMI
Other	1 X SIM SLOT
Expansion slot	1 X M.2 KEY_E (Support WLAN)
slot	1 X M.2 KEY_B (Support 4G/5G)
System	Windows10,Linux

Overall size	263.63mm X 182.81mm X 72.2mm
Hole size	255mm X 175mm
Weight	About2.1Kg

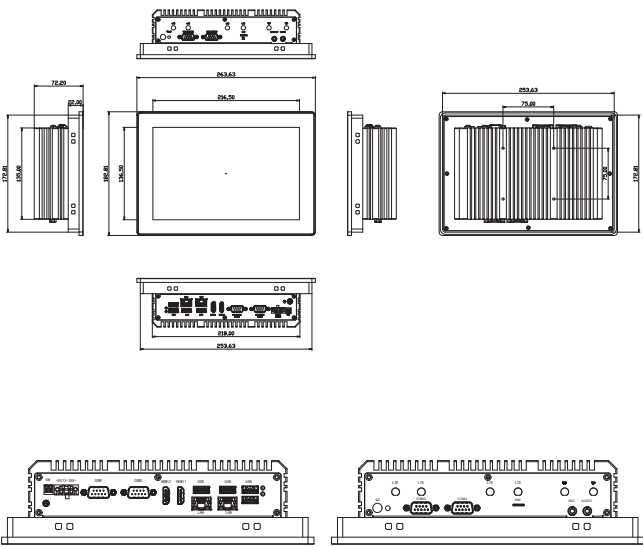
Display type	10.1" TFT LCD
Resolution	1280*800 (16:10) , WXGA
Viewing angle	85/85/85/85 (Typ.)(CR≥10)
Brightness	400 cd/m² (Typ.)
Contrast ratio	600:1 (Typ.)(Transmission)

Touch type	All-plane ten-point projected capacitive
Power input	12—28V DC

Product characteristics

- 10.1 inch full screen fanless design, the front panel is IP65 waterproof and dust proof
- Support full screen ten-point projected capacitive screen
- Support four COM, four USB, and two intel Gigabit network ports
- Support embedded and VESA mounting
- Support 12-28V input

HPC-1010L Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmPeak and peak value
Shock	10G/peak(11ms sec)

Ordering information

HPC-1010L-J6412-C10 (Capacitance) Resolution ratio 1280\*800 (16:10)  
HPC-1010L-J6412--G10 (No touch) Resolution ratio 1280\*800 (16:10)

Packing list

Host machine	HPC-1010L*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	FSP065-RHAC2*1



# HPC-1200L

## Standard screen industrial all-in-one



Specification

CPU	Intel Elkhart Lake Celeron J6412 CPU, Quad-core up to 2.6GHz,TDP 12W Max
Memory	1 X DDR4 SO-DIMM, 2666/2933/3200MHZ 32GB MAX
Storage	1 X M.2(Key-M,2242/2280 NVMe SSD)
Network	2 X RJ45, i225 Ethernet Controller
COM	4 X RS232 (COM1&COM2 optional RS485)
USB	4 X USB(Rear)
Audio	ALC897(3W4Ω)Line Out&Line In
Display	2 X HDMI
Other	1 X SIM SLOT
Expansion slot	1 X M.2 KEY_E (Support WLAN) 1 X M.2 KEY_B (Support 4G/5G)
System	Windows10,Linux

Overall size	312mm X 250mm X 72.7mm
Hole size	305mm X 243mm
Weight	About3.4Kg

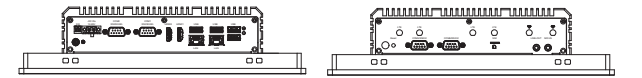
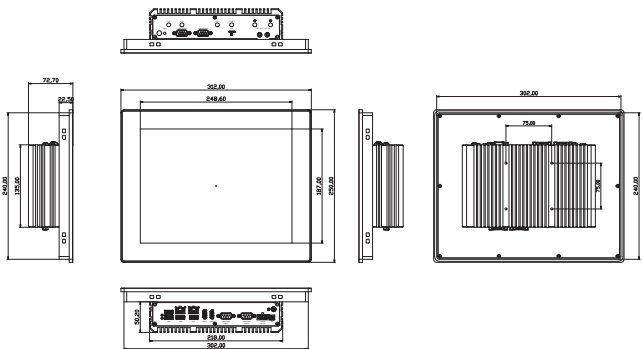
Display type	12.1 "TFT LCD
Resolution	1024*768 (4:3) , XGA
Viewing angle	80/80/80/80(Typ.)(CR≥10)
Brightness	350 cd/m <sup>2</sup> (Typ.)
Contrast ratio	800:1 (Typ.)(Transmission)

Touch type	All-plane ten-point projected capacitive Full-plane five-wire resistive touch screen
Controller	USB interface
Durability	More than 3,500w times
Power input	12—28V DC

Product characteristics

- 12.1 inch full screen fanless design, the front panel is IP65 waterproof and dust proof
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Support four COM, four USB, and two intel Gigabit network ports
- Support embedded and VESA mounting
- Support 12-28V input

HPC-1200L Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmPeak and peak value
Shock	10G/peak(11ms sec)

Ordering information

HPC-1200L-J6412--C10 (Capacitance) /Resolution ratio 1024*768 (4:3)
HPC-1200L-J6412--R10 (Resistance) /Resolution ratio 1024*768 (4:3)
HPC-1200L-J6412--G10 (No touch) /Resolution ratio 1024*768 (4:3)

Packing list

Host machine	HPC-1200L*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	FSP065-RHAC2*1

# HPC-1500L

## Standard screen industrial all-in-one



Specification

CPU	Intel Elkhart Lake Celeron J6412 CPU, Quad-core up to 2.6GHz,TDP 12W Max
Memory	1 X DDR4 SO-DIMM, 2666/2933/3200MHZ 32GB MAX
Storage	1 X M.2(Key-M,2242/2280 NVMe SSD)
Network	2 X RJ45, i225 Ethernet Controller
COM	4 X RS232 (COM1&COM2optional RS485)
USB	4 X USB(Rear)
Audio	ALC897(3W4Ω)Line Out&Line In
Display	2 X HDMI
Other	1 X SIM SLOT
Expansion slot	1 X M.2 KEY_E (Support WLAN) 1 X M.2 KEY_B (Support 4G/5G)
System	Windows10,Linux

Overall size	357.2mm X 281mm X 72.7mm
Hole size	350mm X 275mm
Weight	About4.2Kg

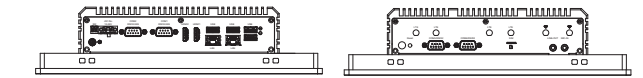
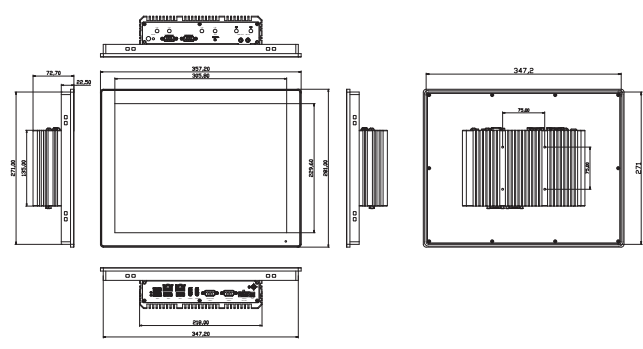
Display type	15 "TFT LCD
Resolution	1024*768 (4:3) , XGA
Viewing angle	89/89/89/89(Typ.)(CR≥10)
Brightness	350 cd/m <sup>2</sup> (Typ.)
Contrast ratio	1000:1 (Typ.)(Transmission)

Touch type	All-plane ten-point projected capacitive Full-plane five-wire resistive touch screen
Controller	USB interface
Durability	More than 3,500w times
Power input	12—28V DC

Product characteristics

- 15 inch full screen fanless design, the front panel is IP65 waterproof and dust proof
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Support four COM, four USB, and two intel Gigabit network ports
- Support embedded and VESA mounting
- Support 12-28V input

HPC-1500L Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmPeak and peak value
Shock	10G/peak(11ms sec)

Ordering information

HPC-1500L-J6412-C10 (Capacitance) /Resolution ratio1024*768 (4:3)
HPC-1500L-J6412-R10 (Resistance) /Resolution ratio1024*768 (4:3)
HPC-1500L-J6412-G10 (No touch) /Resolution ratio1024*768 (4:3)

Packing list

Host machine	HPC-1500L*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	FSP065-RHAC2*1



# HPC-1560L

## Widescreen industrial all-in-one



Specification

CPU	Intel Elkhart Lake Celeron J6412 CPU, Quad-core up to 2.6GHz,TDP 12W Max
Memory	1 X DDR4 SO-DIMM, 2666/2933/3200MHZ 32GB MAX
Storage	1 X M.2(Key-M,2242/2280 NVMe SSD)
Network	2 X RJ45, i225 Ethernet Controller
COM	4 X RS232 (COM1&COM2 optional RS485)
USB	4 X USB(Rear)
Audio	ALC897(3W4Ω)Line Out&Line In
Display	2 X HDMI
Other	1 X SIM SLOT
Expansion slot	1 X M.2 KEY_E (Support WLAN) 1 X M.2 KEY_B (Support 4G/5G)
System	Windows10,Linux

Overall size	410.5mm X 259.9mm X 74.7mm
Hole size	403mm X 252mm
Weight	About3.6Kg

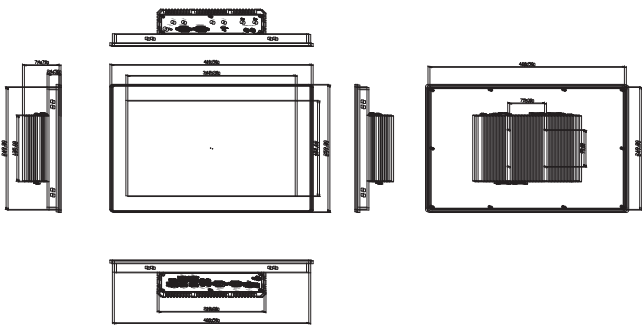
Display type	15.6 "TFT LCD
Resolution	1920*1080 (16:9) , FHD
Viewing angle	85/85/85/85 (Typ.)(CR≥10)
Brightness	220cd/m²
Contrast ratio	800 : 1(Transmission)

Touch type	All-plane ten-point projected capacitive Full-plane five-wire resistive touch screen
Controller	USB interface
Durability	More than 3,500w times
Power input	12—28V DC

Product characteristics

- 15.6 inch full screen fanless design, the front panel is IP65 waterproofand dust proof
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Support four COM, four USB, and two intel Gigabit network ports
- Support embedded and VESA mounting
- Support 12-28V input

HPC-1560L Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmPeak and peak value
Shock	10G/peak(11ms sec)

Ordering information

HPC-1560L-J6412--C10 (Capacitance) /Resolution ratio 1920\*1080 (16:9)  
HPC-1560L-J6412--R10 (Resistance) /Resolution ratio 1920\*1080 (16:9)

Packing list

Host machine	HPC-1560L*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	FSP065-RHAC2*1

# HPC-1700L

## Standard screen industrial all-in-one



Specification

CPU	Intel Elkhart Lake Celeron J6412 CPU, Quad-core up to 2.6GHz,TDP 12W Max
Memory	1 X DDR4 SO-DIMM, 2666/2933/3200MHZ 32GB MAX
Storage	1 X M.2(Key-M,2242/2280 NVMe SSD)
Network	2 X RJ45, i225 Ethernet Controller
COM	4 X RS232 (COM1&COM2 optional RS485)
USB	4 X USB(Rear)
Audio	ALC897(3W4Ω)Line Out&Line In
Display	2 X HDMI
Other	1 X SIM SLOT
Expansion slot	1 X M.2 KEY_E (Support WLAN) 1 X M.2 KEY_B (Support 4G/5G)
System	Windows10,Linux

Overall size	392.8mm X 325.4mm X 72.9mm
Hole size	386mm X 318mm
Weight	About4.95Kg

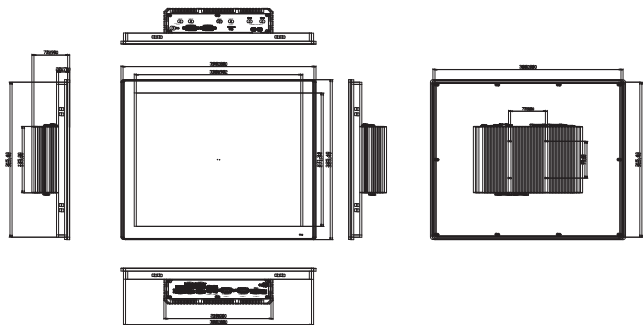
Display type	17 "TFT LCD
Resolution	1280*1024 (5:4) , SXGA
Viewing angle	85/85/80/80(Typ.)(CR≥10)
Brightness	250 cd/m² (Typ.)
Contrast ratio	1000:1 (Typ.)(Transmission)

Touch type	All-plane ten-point projected capacitive Full-plane five-wire resistive touch screen
Controller	USB interface
Durability	More than 3,500w times
Power input	12—28V DC

Product characteristics

- 17 inch full screen fanless design, the front panel is IP65 waterproof and dust proof
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Support four COM, four USB, and two intel Gigabit network ports
- Support embedded and VESA mounting
- Support 12-28V input

HPC-1700L Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmPeak and peak value
Shock	10G/peak(11ms sec)

Ordering information

HPC-1700L-J6412--C10 (Capacitance) /Resolution ratio 1280\*1024 (5:4)  
HPC-1700L-J6412--R10 (Resistance) /Resolution ratio 1280\*1024 (5:4)  
HPC-1700L-J6412--G10 (No touch) /Resolution ratio 1280\*1024 (5:4)

Packing list

Host machine	HPC-1700L*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	FSP065-RHAC2*1

# HPC-1850L

## Widescreen industrial all-in-one



Specification

CPU	Intel Elkhart Lake Celeron J6412 CPU, Quad-core up to 2.6GHz,TDP 12W Max
Memory	1 X DDR4 SO-DIMM, 2666/2933/3200MHZ 32GB MAX
Storage	1 X M.2(Key-M,2242/2280 NVMe SSD)
Network	2 X RJ45, i225 Ethernet Controller
COM	4 X RS232 (COM1&COM2optionalRS485)
USB	4 X USB(Rear)
Audio	ALC897(3W4Ω)Line Out&Line In
Display	2 X HDMI
Other	1 X SIM SLOT
Expansion slot	1 X M.2 KEY_E (Support WLAN) 1 X M.2 KEY_B (Support 4G/5G)
System	Windows10,Linux

Overall size	458.4mm X 282.4mm X 72.7mm
Hole size	450mm X 275mm
Weight	About5.15Kg

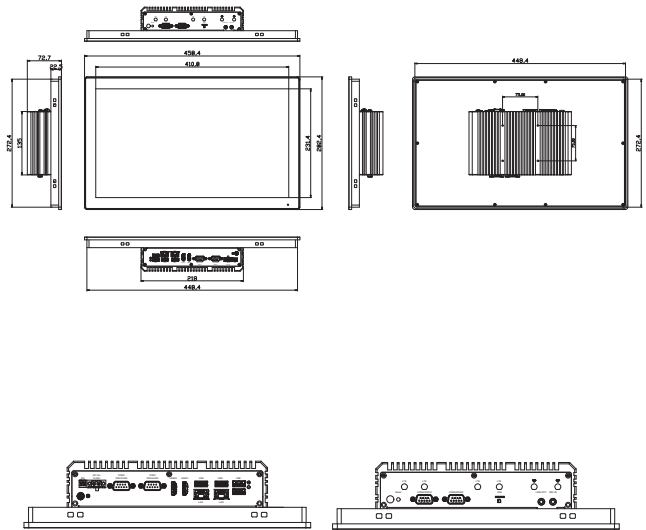
Display type	18.5 "TFT LCD
Resolution	1366*768 (16:9) WXGA /1920*1080 (16:9) FHD
Viewing angle	89/89/89/89 (Typ.)(CR≥10)
Brightness	250 cd/m² (Typ.)
Contrast ratio	700:1 (Typ.)(Transmission)

Touch type	All-plane ten-point projected capacitive Full-plane five-wire resistive touch screen
Controller	USB interface
Durability	More than 3,500w times
Power input	12—28V DC

Product characteristics

- 18.5 inch full screen fanless design, the front panel is IP65 waterproof and dust proof
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Support four COM, four USB, and two intel Gigabit network ports
- Support embedded and VESA mounting
- Support 12-28V input

HPC-1850L Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmPeak and peak value
Shock	10G/peak(11ms sec)

Ordering information

HPC-1850L-J6412-C10 (Capacitance) /Resolution ratio1366*768/1920*1080
HPC-1850L-J6412-R10 (Resistance) /Resolution ratio1366*768/1920*1080
HPC-1850L-J6412-G10 (No touch) /Resolution ratio1366*768/1920*1080

Packing list

Host machine	HPC-1850L*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	FSP065-RHAC2*1

# HPC-2150L

## Widescreen industrial all-in-one



Specification

CPU	Intel Elkhart Lake Celeron J6412 CPU, Quad-core up to 2.6GHz,TDP 12W Max
Memory	1 X DDR4 SO-DIMM, 2666/2933/3200MHZ 32GB MAX
Storage	1 X M.2(Key-M,2242/2280 NVMe SSD)
Network	2 X RJ45, i225 Ethernet Controller
COM	4 X RS232 (COM1&COM2 optional RS485)
USB	4 X USB(Rear)
Audio	ALC897(3W4Ω)Line Out&Line In
Display	2 X HDMI
Other	1 X SIM SLOT
Expansion slot	1 X M.2 KEY_E (Support WLAN) 1 X M.2 KEY_B (Support 4G/5G)
System	Windows10,Linux

Overall size	531.6mm X 323.4mm X 76mm
Hole size	518mm X 309mm
Weight	About6.3Kg

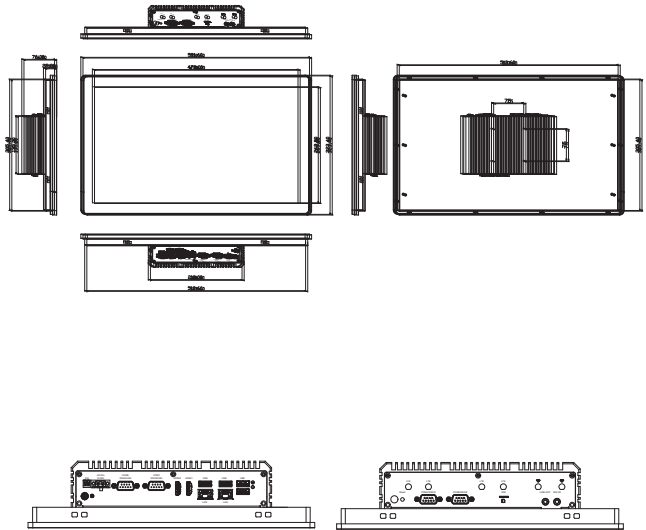
Display type	21.5"TFT LCD
Resolution	1920*1080 (16:9) , FHD
Viewing angle	89/89/89/89 (Typ.)(CR≥10)
Brightness	250 cd/m² (Typ.)
Contrast ratio	1000:1 (Typ.)(Transmission)

Touch type	All-plane ten-point projected capacitive
Power input	12—28V DC

Product characteristics

- 21.5 inch full screen fanless design, the front panel is IP65 waterproof and dust proof
- Support full screen ten-point projected capacitive screen
- Support four COM, four USB, and two intel Gigabit network ports
- Support embedded and VESA mounting
- Support 12-28V input

HPC-2150L Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmPeak and peak value
Shock	10G/peak(11ms sec)

Ordering information

HPC-2150L-J6412--C10 (Capacitance) /Resolution ratio 1920*1080 (16:9)
HPC-2150L-J6412--G10 (No touch) /Resolution ratio 1920*1080 (16:9)

Packing list

Host machine	HPC-2150L*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	FSP065-RHAC2*1



# HPC-2380L

## Widescreen industrial all-in-one



Specification

CPU	Intel Elkhart Lake Celeron J6412 CPU, Quad-core up to 2.6GHz,TDP 12W Max
Memory	1 X DDR4 SO-DIMM , 2666/2933/3200MHZ 32GB MAX
Storage	1 X M.2(Key-M,2242/2280 NVMe SSD)
Network	2 X RJ45, i225 Ethernet Controller
COM	4 X RS232 (COM1&COM2 optional RS485)
USB	4 X USB(Rear)
Audio	ALC897(3W4Ω)Line Out&Line In
Display	2 X HDMI
Other	1 X SIM SLOT
Expansion slot	1 X M.2 KEY_E (Support WLAN) 1 X M.2 KEY_B (Support 4G/5G)
System	Windows10,Linux

Overall size	578mm X 360mm X 76mm
Hole size	563mm X 345mm
Weight	About8.3kg

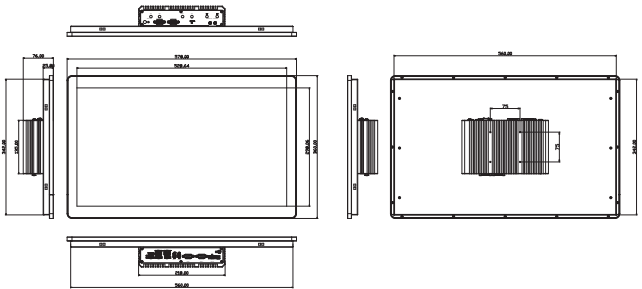
Display type	23.8 "TFT LCD
Resolution	1920*1080 (16:9)
Viewing angle	89/89/89/89 (typ.) (CR≥10)
Brightness	250cd/m <sup>2</sup>
Contrast ratio	1000 : 1

Touch type	All-plane ten-point projected capacitive
Power input	12—28V DC

Product characteristics

- 23.8 inch full screen fanless design, the front panel is IP65 waterproof and dust proof
- Support full screen ten-point projected capacitive screen
- Support four COM, four USB, and two intel Gigabit network ports
- Support embedded and VESA mounting
- Support 12-28V input

HPC-2380L Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmPeak and peak value
Shock	10G/peak(11ms sec)

Ordering information

HPC-2380L-J6412-C10 (Capacitance) /Resolution ratio 1920*1080 (16:9)
HPC-2380L-J6412-G10 (No touch) /Resolution ratio 1920*1080 (16:9)

Packing list

Host machine	HPC-2380L*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	FSP065-RHAC2*1

# HPC-2700L

## Widescreen industrial all-in-one



Specification

CPU	Intel Elkhart Lake Celeron J6412 CPU, Quad-core up to 2.6GHz,TDP 12W Max
Memory	1 X DDR4 SO-DIMM , 2666/2933/3200MHZ 32GB MAX
Storage	1 X M.2(Key-M,2242/2280 NVMe SSD)
Network	2 X RJ45, i225 Ethernet Controller
COM	4 X RS232 (COM1&COM2 optional RS485)
USB	4 X USB(Rear)
Audio	ALC897(3W4Ω)Line Out&Line In
Display	2 X HDMI
Other	1 X SIM SLOT
Expansion slot	1 X M.2 KEY_E (Support WLAN) 1 X M.2 KEY_B (Support 4G/5G)
System	Windows10,Linux

Overall size	660mm X 398mm X 73.2mm
Hole size	640mm X 378mm
Weight	About9.3kg

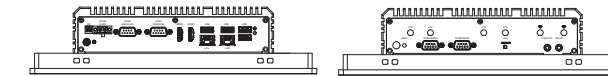
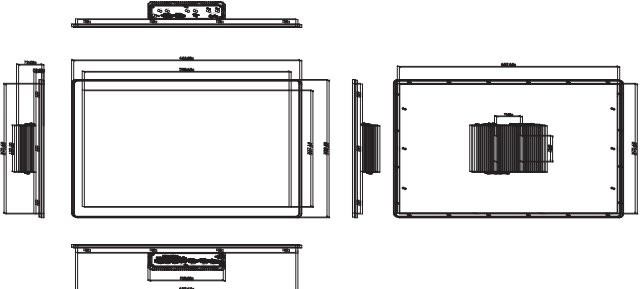
Display type	27 "TFT LCD
Resolution	1920*1080 (16:9) , FHD
Viewing angle	89/89/89/89 (Typ.)(CR≥10)
Brightness	350 cd/m <sup>2</sup> (Typ.)
Contrast ratio	1000:1 (Typ.)(Transmission)

Touch type	All-plane ten-point projected capacitive
Power input	12—28V DC

Product characteristics

- 27 inch full screen fanless design, the front panel is IP65 waterproof and dust proof
- Support full screen ten-point projected capacitive screen
- Support four COM, four USB, and two intel Gigabit network ports
- Support embedded and VESA mounting
- Support 12-28V input

HPC-2700L Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmPeak and peak value
Shock	10G/peak(11ms sec)

Ordering information

HPC-2700L-J6412--C10 (Capacitance) /Resolution ratio 1920*1080 (16:9)
HPC-2700L-J6412--G10 (No touch) /Resolution ratio 1920*1080 (16:9)

Packing list

Host machine	HPC-2700L*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	FSP065-RHAC2*1

HPC-1200H

Standard screen industrial all-in-one



Specification

CPU	Intel 8th i7/i5/i3/CeleronCPU ; I7-8565U/I5-8265U/I3-8145U
Memory	1 X DDR4 2133MHz/2400 SO-DIMM, Up to 32 GB
Storage	1 X M.2 2280_SSD
Network	2 X Intel i210 (10/100/100/1000 Mbps)
COM	4 X COM (COM 1 support RS232/485) ide optionalRS485(COM6) is not installed by default
USB	4 X USB3.0, the sideUSBis not installed by default
Display	2 X HDMI
Expansion slot	1 X M.2 (Key-E, 2230, Wifi+BT)
	1 X M.2 (Key-B, 3042-4G, 3052-5G)
System	Windows10 , Linux

Overall size	312mm X 250mm X 67.47mm
Hole size	305mm X 243mm
Weight	About3.4Kg

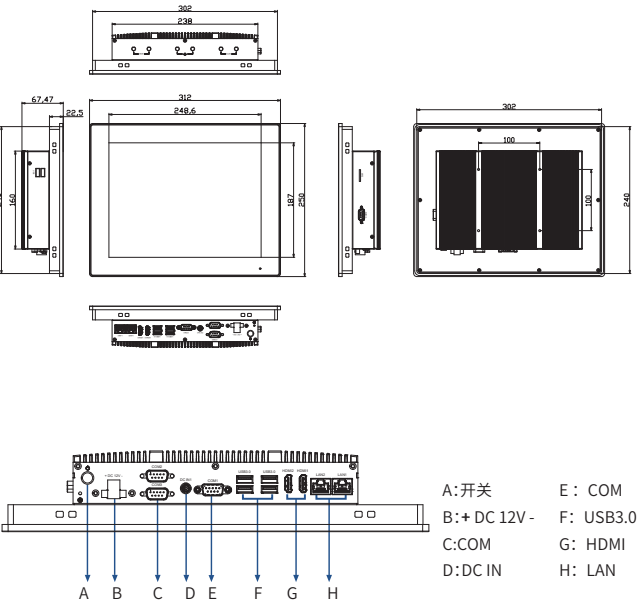
Display type	12.1" TFT LCD
Resolution	1024*768 (4:3) , XGA
Viewing angle	80/80/80/80 (Typ.)(CR≥10)
Brightness	350 cd/m² (Typ.)
Contrast ratio	800:1 (Typ.)(Transmission)

Touch type	All-plane ten-point projected capacitive Full-plane five-wire resistive touch screen
Controller	USB interface
Durability	More than 3.500w times
Power input	12V DC

Product characteristics

- 12.1 inch full screen fanless design
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Use Intel Whiskey Lake Core I3/I5/I7 CPU
- Support four COM, six USB, and two intel Gigabit network ports
- Support DDR4-2400 SO-DIMM, up to 32 GB
- Support embedded and VESA(100\*100mm) mounting

HPC-1200H Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mm peak-to-peak value
Shock	10G/peak(11ms sec)

Ordering information

HPC-1200H-C10 (Capacitance) /Resolution ratio 1024*768 (4:3) /CPU optional i3/i5/i7
HPC-1200H-R10 (Resistance) /Resolution ratio 1024*768 (4:3) /CPU optional i3/i5/i7
HPC-1200H-G10 (No touch) /Resolution ratio 1024*768 (4:3) /CPU optional i3/i5/i7

Packing list

Host machine	HPC-1200H*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	FSP084-RHAC2*1

HPC-1500H

Standard screen industrial all-in-one



Specification

CPU	Intel 8th i7/i5/i3/CeleronCPU ; I7-8565U/I5-8265U/I3-8145U
Memory	1 X DDR4 2133MHz/2400 SO-DIMM, Up to 32 GB
Storage	1 X M.2 2280_SSD
Network	2 X Intel i210 (10/100/100/1000 Mbps)
COM	4 X COM (COM 1 support RS232/485) side optionalRS485(COM6) is not installed by default
USB	4 X USB3.0, the sideUSBis not installed by default
Display	2 X HDMI
Expansion slot	1 X M.2 (Key-E, 2230, Wifi+BT)
	1 X M.2 (Key-B, 3042-4G, 3052-5G)
System	Windows10 , Linux

Overall size	357.2mm X 281mm X 67.47mm
Hole size	350mm X 274mm
Weight	About4.2Kg

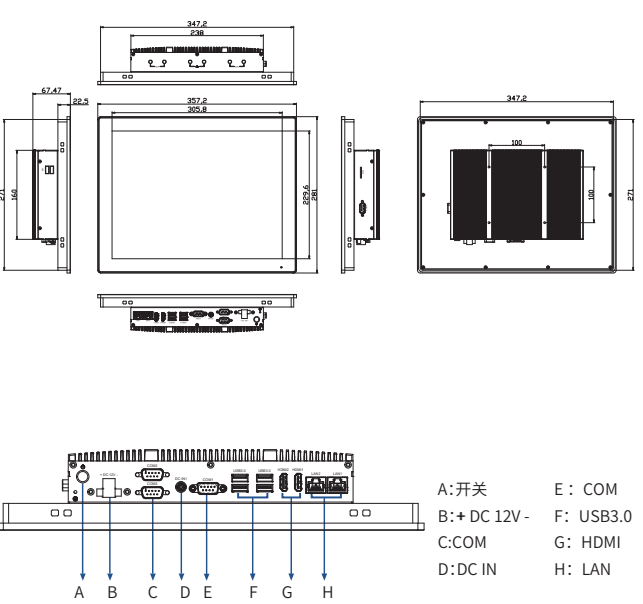
Display type	15" TFT LCD
Resolution	1024*768 (4:3) , XGA
Viewing angle	89/89/89/89 (Typ.)(CR≥10)
Brightness	350 cd/m² (Typ.)
Contrast ratio	1000:1 (Typ.)(Transmission)

Touch type	All-plane ten-point projected capacitive Full-plane five-wire resistive touch screen
Controller	USB interface
Durability	More than 3.500w times
Power input	12V DC

Product characteristics

- 15 inch full screen fanless design
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Use Intel Whiskey Lake Core I3/I5/I7 CPU
- Support four COM, six USB, and two intel Gigabit network ports
- Support DDR4-2400 SO-DIMM, up to 32 GB
- Support embedded and VESA(100\*100mm) mounting

HPC-1500H Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mm peak-to-peak value
Shock	10G/peak(11ms sec)

Ordering information

HPC-1500H-C10 (Capacitance) /Resolution ratio 1024*768 (4:3) /CPU optional i3/i5/i7
HPC-1500H-R10 (Resistance) /Resolution ratio 1024*768 (4:3) /CPU optional i3/i5/i7
HPC-1500H-G10 (No touch) /Resolution ratio 1024*768 (4:3) /CPU optional i3/i5/i7

Packing list

Host machine	HPC-1500H*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	FSP084-RHAC2*1



HPC-1560H

Widescreen industrial all-in-one



Specification

CPU	Intel 8th i7/i5/i3/CeleronCPU ; I7-8565U/I5-8265U/I3-8145U
Memory	1 X DDR4 2133MHz/2400 SO-DIMM, Up to 32 GB
Storage	1 X M.2 2280_SSD
Network	2 X Intel i210 (10/100/100/1000 Mbps)
COM	4 X COM (COM 1 support RS232/485) ide optionalRS485(COM6) ide optional
USB	4 X USB3.0, the sideUSBis not installed by default
Display	2 X HDMI
Expansion slot	1 X M.2 (Key-E, 2230, Wifi+BT)
System	Windows10 , Linux

Overall size	410.5mm X 259.9mm X 69.47mm
Hole size	403mm X 252mm
Weight	About3.6Kg

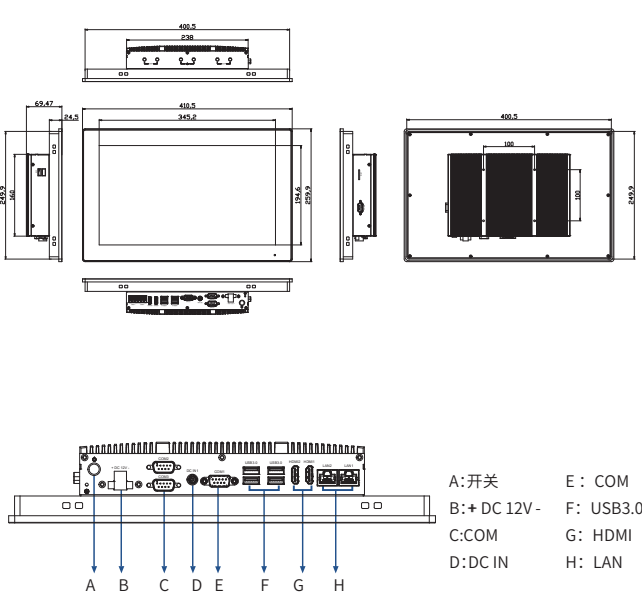
Display type	15.6 "TFT LCD
Resolution	1920*1080 (16:9) , FHD
Viewing angle	85/85/85/85 (Typ.) (CR≥10)
Brightness	220cd/m²
Contrast ratio	800 : 1(Transmission)

Touch type	All-plane ten-point projected capacitive Full-plane five-wire resistive touch
Controller	USB interface
Durability	More than 3,500w times
Power input	12V DC

Product characteristics

- 15.6 inch full screen fanless design
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Use Intel Whiskey Lake Core I3/I5/I7 CPU
- Support four COM, six USB, and two intel Gigabit network ports
- Support DDR4-2400 SO-DIMM, up to 32 GB
- Support embedded and VESA(100\*100mm) mounting

HPC-1560H Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mm peak-to-peak value
Shock	10G/peak(11ms sec)

Ordering information

HPC-1560H-C10 (Capacitance) /Resolution ratio 1920*1080 /CPU optional i3/i5/i7
HPC-1560H-R10 (Resistance) /Resolution ratio 1920*1080 /CPU optional i3/i5/i7

Packing list

Host machine	HPC-1560H*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	FSP084-RHAC2*1

HPC-1700H

Standard screen industrial all-in-one



Specification

CPU	Intel 8th i7/i5/i3/CeleronCPU ; I7-8565U/I5-8265U/I3-8145U
Memory	1 X DDR4 2133MHz/2400 SO-DIMM, Up to 32 GB
Storage	1 X M.2 2280_SSD
Network	2 X Intel i210 (10/100/100/1000 Mbps)
COM	4 X COM (COM 1 support RS232/485) side optionalRS485(COM6) is not installed by default
USB	4 X USB3.0, the sideUSBis not installed by default
Display	2 X HDMI
Expansion slot	1 X M.2 (Key-E, 2230, Wifi+BT)
System	Windows10 , Linux

Overall size	392.8mm X 325.4mm X 67.47mm
Hole size	386mm X 318mm
Weight	About4.95Kg

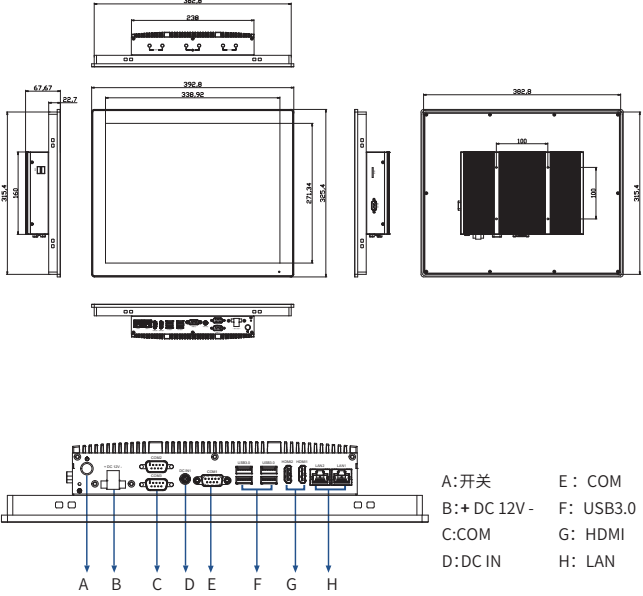
Display type	17"TFT LCD
Resolution	1280*1024 (5:4) , SXGA
Viewing angle	85/85/80/80 (Typ.)(CR≥10)
Brightness	250 cd/m² (Typ.)
Contrast ratio	1000:1 (Typ.)(Transmission)

Touch type	All-plane ten-point projected capacitive Full-plane five-wire resistive touch
Controller	USB interface
Durability	More than 3,500w times
Power input	12V DC

Product characteristics

- 17 inch full screen fanless design
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Use Intel Whiskey Lake Core I3/I5/I7 CPU
- Support four COM, six USB, and two intel Gigabit network ports
- Support DDR4-2400 SO-DIMM, up to 32 GB
- Support embedded and VESA(100\*100mm) mounting

HPC-1700H Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmpeak-to-peak value
Shock	10G/peak(11ms sec)

Ordering information

HPC-1700H-C10 (Capacitance) /Resolution ratio 1280*1024 (5:4) /CPU optional i3/i5/i7
HPC-1700H-R10 (Resistance) /Resolution ratio 1280*1024 (5:4) /CPU optional i3/i5/i7
HPC-1700H-G10 (No touch) /Resolution ratio 1280*1024 (5:4) /CPU optional i3/i5/i7

Packing list

Host machine	HPC-1700H*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	FSP084-RHAC2*1

HPC-1850H

Widescreen industrial all-in-one



Specification

CPU	Intel 8th i7/i5/i3/CeleronCPU; I7-8565U/I5-8265U/I3-8145U
Memory	1 X DDR4 2133MHz/2400 SO-DIMM, Up to 32 GB
Storage	1 X M.2 2280_SSD
Network	2 X Intel i210 (10/100/100/1000 Mbps)
COM	4 X COM (COM 1 support RS232/485) side optionalRS485(COM6) is not installed by default
USB	4 X USB3.0, the sideUSBis not installed by default
Display	2 X HDMI
Expansion slot	1 X M.2 (Key-E, 2230, Wifi+BT)
	1 X M.2 (Key-B, 3042-4G, 3052-5G)
System	Windows10 , Linux

Overall size	458.4mm X 282.4mm X 69.47mm
Hole size	450mm X 275mm
Weight	About5.15Kg

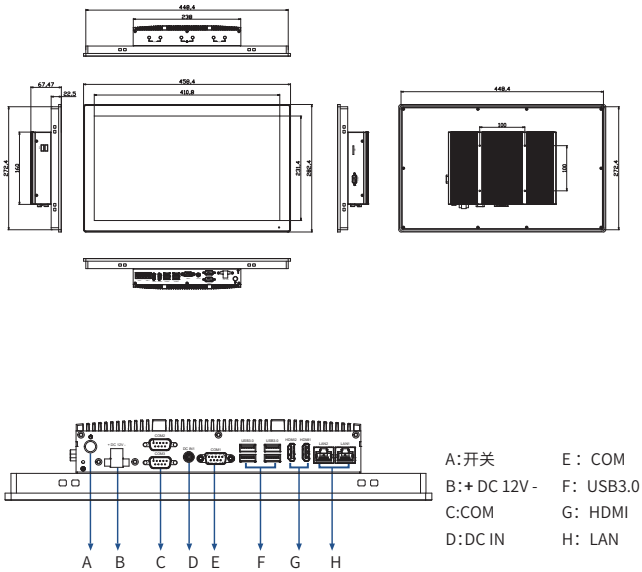
Display type	18.5" TFT LCD
Resolution	1366*768 (16:9) WXGA/1920*1080 (16:9) FHD
Viewing angle	89/89/89/89 (Typ.)(CR≥10)
Brightness	250 cd/m² (Typ.)
Contrast ratio	700:1 (Typ.)(Transmission)

Touch type	All-plane ten-point projected capacitive
	Full-plane five-wire resistive touch
Controller	USB interface
Durability	More than 3,500w times
Power input	12V DC

Product characteristics

- 18.5 inch full screen fanless design
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Use Intel Whiskey Lake Core I3/I5/I7 CPU
- Support four COM, six USB, and two intel Gigabit network ports
- Support DDR4-2400 SO-DIMM, up to 32 GB
- Support embedded and VESA(100\*100mm) mounting

HPC-1850H Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmpeak-to-peak value
Shock	10G/peak(11ms sec)

Ordering information

HPC-1850H-C10 (Capacitance) /Resolution ratio optional 1366*768/1920*1080
HPC-1850H-R10 (Resistance) /Resolution ratio optional 1366*768/1920*1080
HPC-1850H-G10 (No touch) /Resolution ratio optional 1366*768/1920*1080

Packing list

Host machine	HPC-1850H*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	FSP084-RHAC2*1

HPC-2150H

Widescreen industrial all-in-one



Specification

CPU	Intel 8th i7/i5/i3/CeleronCPU; I7-8565U/I5-8265U/I3-8145U
Memory	1 X DDR4 2133MHz/2400 SO-DIMM, Up to 32 GB
Storage	1 X M.2 2280_SSD
Network	2 X Intel i210 (10/100/100/1000 Mbps)
COM	4 X COM (COM 1 support RS232/485) side optionalRS485(COM6) is not installed by default
USB	4 X USB3.0, the sideUSBis not installed by default
Display	2 X HDMI
Expansion slot	1 X M.2 (Key-E, 2230, Wifi+BT)
	1 X M.2 (Key-B, 3042-4G, 3052-5G)
System	Windows10 , Linux

Overall size	531.6mm X 323.4mm X 70.77mm
Hole size	519mm X 309mm
Weight	About6.3Kg

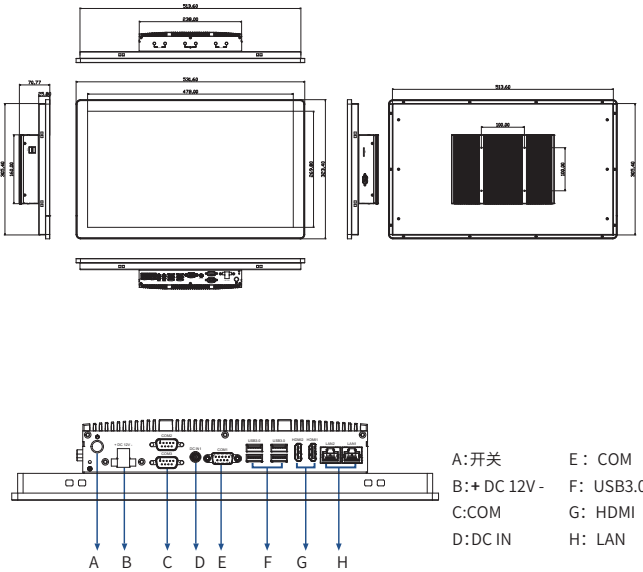
Display type	21.5" TFT LCD
Resolution	1920*1080 (16:9) , FHD
Viewing angle	89/89/89/89 (Typ.)(CR≥10)
Brightness	250 cd/m² (Typ.)
Contrast ratio	1000:1 (Typ.)(Transmission)

Touch type	All-plane ten-point projected capacitive
Controller	USB interface
Durability	More than 3,500w times
Power input	12V DC

Product characteristics

- 21.5 inch full screen fanless design
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Use Intel Whiskey Lake Core I3/I5/I7 CPU
- Support four COM, six USB, and two intel Gigabit network ports
- Support DDR4-2400 SO-DIMM, up to 32 GB
- Support embedded and VESA(100\*100mm) mounting

HPC-2150H Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmpeak-to-peak value
Shock	10G/peak(11ms sec)

Ordering information

HPC-2150H-C10 (Capacitance) /1920*1080 (16:9)/CPU optional i3/i5/i7
HPC-2150H-G10 (No touch) /1920*1080 (16:9)/CPU optional i3/i5/i7

Packing list

Host machine	HPC-2150H*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	FSP084-RHAC2*1



HPC-2380H

Widescreen industrial all-in-one



Specification

CPU	Intel 8th i7/i5/i3/CeleronCPU; I7-8565U/I5-8265U/I3-8145U
Memory	1 X DDR4 2133MHz/2400 SO-DIMM, Up to 32 GB
Storage	1 X M.2 2280_SSD
Network	2 X Intel i210 (10/100/100/1000 Mbps)
COM	4 X COM (COM 1 support RS232/485) side optionalRS485(COM6) is not installed by default
USB	4 X USB3.0, the sideUSBis not installed by default
Display	2 X HDMI
Expansion slot	1 X M.2 (Key-E, 2230, Wifi+BT)
slot	1 X M.2 (Key-B, 3042-4G, 3052-5G)
System	Windows10 , Linux

Overall size	578mm X 360mm X 70.77mm
Hole size	563mm X 345mm
Weight	About8.5 kg

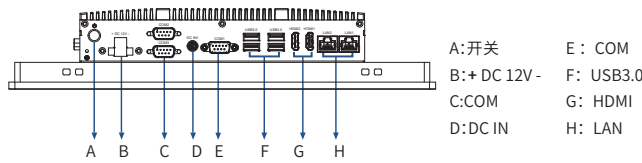
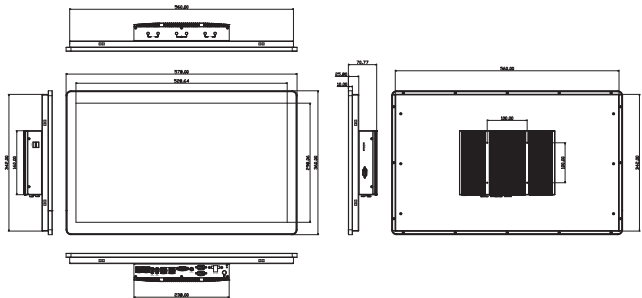
Display type	23.8" TFT LCD
Resolution	1920*1080 (16:9) , FHD
Viewing angle	89/89/89/89 (Typ.)(CR≥10)
Brightness	250 cd/m² (Typ.)
Contrast ratio	1000:1 (Typ.)(Transmission)

Touch type	All-plane ten-point projected capacitive
Controller	USB interface
Durability	More than 3,500w times
Power input	12V DC

Product characteristics

- 23.8 inch full screen fanless design
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Use Intel Whiskey Lake Core I3/I5/I7 CPU
- Support four COM, six USB, and two intel Gigabit network ports
- Support DDR4-2400 SO-DIMM, up to 32 GB
- Support embedded and VESA(100\*100mm) mounting

HPC-2380H Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmpeak-to-peak value
Shock	10G/peak(11ms sec)

Ordering information

HPC-2380H-C10 (Capacitance) /Resolution ratio 1920*1080 (16:9)
HPC-2380H-G10 (No touch) /Resolution ratio 1920*1080 (16:9)

Packing list

Host machine	HPC-2380H*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	FSP084-RHAC2*1

HPC-2700H

Widescreen industrial all-in-one



Specification

CPU	Intel 8th i7/i5/i3/CeleronCPU; I7-8565U/I5-8265U/I3-8145U
Memory	1 X DDR4 2133MHz/2400 SO-DIMM, Up to 32 GB
Storage	1 X M.2 2280_SSD
Network	2 X Intel i210 (10/100/100/1000 Mbps)
COM	4 X COM (COM 1 support RS232/485) side optionalRS485(COM6) is not installed by default
USB	4 X USB3.0, the sideUSBis not installed by default
Display	2 X HDMI
Expansion slot	1 X M.2 (Key-E, 2230, Wifi+BT)
slot	1 X M.2 (Key-B, 3042-4G, 3052-5G)
System	Windows10 , Linux

Overall size	660mm X 398mm X 67.97mm
Hole size	640mm X 378mm
Weight	About9.3Kg

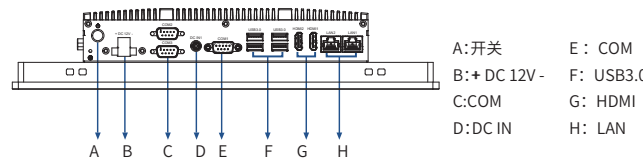
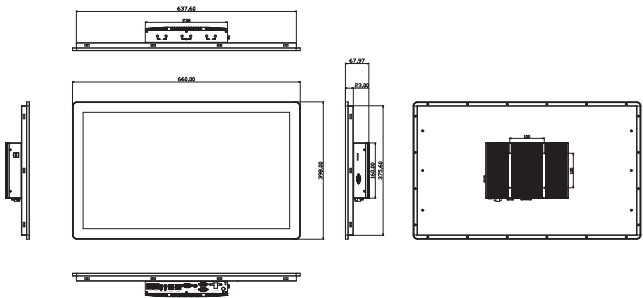
Display type	27 "TFT LCD
Resolution	1920*1080 (16:9) , FHD
Viewing angle	89/89/89/89 (Typ.)(CR≥10)
Brightness	350 cd/m² (Typ.)
Contrast ratio	3000:1 (Typ.)(Transmission)

Touch type	All-plane ten-point projected capacitive
Controller	USB interface
Durability	More than 3,500w times
Power input	12V DC

Product characteristics

- 27 inch full screen fanless design
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Use Intel Whiskey Lake Core I3/I5/I7 CPU
- Support four COM, six USB, and two intel Gigabit network ports
- Support DDR4-2400 SO-DIMM, up to 32 GB
- Support embedded and VESA(100\*100mm) mounting

HPC-2700H Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmpeak-to-peak value
Shock	10G/peak(11ms sec)

Ordering information

HPC-2700H-C10 (Capacitance) /1920*1080 (16:9)/CPU optional i3/i5/i7
HPC-2700H-G10 (No touch) /1920*1080 (16:9)/CPU optional i3/i5/i7

Packing list

Host machine	HPC-2700H*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	FSP084-RHAC2*1

CPU

Industrial all-in-one PC

Industrial touch display

Fanless IPC

IPC chassis

Main board

Server series

Network card module

Switch

Display

HPC-1550R/C
Multifunctional all-in-one



Specification

Table with 2 columns: Specification and Details. Rows include CPU (Intel® 8th and 9th Generation CoreTM i3/i5/i7, Pentium®, Celeron® CPU, LGA115), CS (Intel® H310, TDP 6W), Memory (DDR4-2400/2666, 2 X SO-DIMM, up to 32 GB), Storage (2 X SATA 3.0, 1 X M.2 (Key-B, 2242/2280,SATA SSD)), Network (2 X Realtek® 1Gbps PCIe Ethernet Controller, RJ45), COM (2 X RS232, 2 X RS232/485), USB (4 X USB 3.0, 4 X USB 2.0), Audio screen (Realtek® 5.1 channel HDA Codec, with MIC/Line-out and Amplifier), Expansion slot (1 X PCIe x4->extend 1 X PCI/2 X PCI), System (1 X M.2 (Key-B, 3042, 4G), 1 X M.2 (Key-E, 2230, Wifi+BT)), BIOS (AMI UEFI BIOS), GPIO (8 X Programmable GPIO), and System (Windows 10, Linux).

Table with 2 columns: Specification and Details. Rows include Overall size (357.20 X 281 X 77.50mm), Hole size (350 X 274mm), and Weight (About5.7Kg).

Table with 2 columns: Specification and Details. Rows include Display type (15" TFT LCD), Resolution (1024\*768 (4:3) , XGA), Viewing angle (89/89/89/89 (Typ.)(CR≥10)), Brightness (350 cd/m² (Typ.)), and Contrast ratio (1000:1 (Typ.)(Transmission)).

Table with 2 columns: Specification and Details. Rows include Touch type (All-plane ten-point projected capacitive, Full-plane five-wire resistive touch), Controller (USB interface), Durability (More than 3,500w times), and Power input (DC 24V).

Product characteristics

- 15 inch full screen fanless design
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Support four COM, eight USB, and two intel Gigabit network ports
- Provides 2 X HDMI, 1 X DP, and supports dual display
- Support embedded and VESA mounting
- DC 24V input

HPC-1550R/C Plan

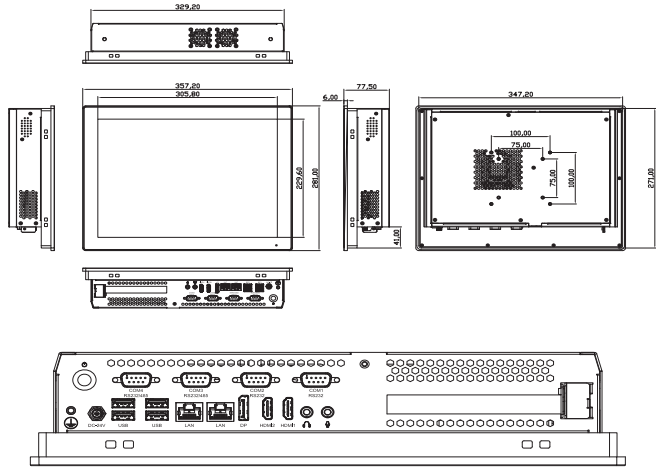


Table with 2 columns: Specification and Details. Rows include Temperature (Operation: -20°C~60°C, Storage: -25°C~75°C) and Relative humidity (Operation: 10%~90%, Storage: 5%~95%, non-condensing).

Table with 2 columns: Specification and Details. Rows include Display Interface (2 X HDMI: max resolution up to4096\*2160@24Hz, 1 X DP++: max resolution up to4096\*2304@60Hz, 1 X LVDS/eDP: LVDS, Dual Channel 24bit, max resolution up to 1920\*1200@60Hz, eDP, max resolution up to4096\*2160@60Hz).

Ordering information

HPC-1550R/C Resolution ratio 1024\*768 (4:3)

Packing list

Table with 2 columns: Host machine, clasp, Power cord, and Adapter. Details include HPC-1550R/C\*1, M-BK\*4, M-Power-B-180mm\*1, and FSP150-AAAN3\*1.

HPC-1770R/C
Multifunctional all-in-one



Specification

Table with 2 columns: Specification and Details. Rows include CPU (Intel® 6/7/8/9th Generation CoreTM i3/i5/i7, Pentium®, Celeron® CPU, LGA115), CS (Intel® H110, TDP 6W), Memory (DDR4-2400/2666MHz, 2 X non-ECC SO-DIMM Slot, Up to 32GB), Storage (1 X mSata, 1 X 2.5"HDD (Extensible)), Network (2 X Intel i211 GBE LAN Ethernet Controller, RJ45), I/Oport (6 X COM ,6 X USB,1 X MIC-in, 1 X Line-Out,2 X Amplifier,1 X HDMI, 1 X VGA), Expansion slot (1 X PCIe x16->extend 1 X PCI/2 X PCI/1 X PCIe/2 X PCIe, 1 X Wifi, 1 X M.2 (Key-B, 3042, 4G), 1 X M.2 (Key-E, 2230, Wifi+BT)), and System (Windows 10, Linux).

Table with 2 columns: Specification and Details. Rows include Overall size (392.8 X 325.4 X 93.1mm), Hole size (386 X 318mm), and Weight (About6.1Kg).

Table with 2 columns: Specification and Details. Rows include Display type (17" TFT LCD), Resolution (1280\*1024 (4:3)), Viewing angle (85/85/80/80 (typ.)(CR≥10)), Brightness (250cd/m²), Contrast ratio (1000: 1), and Back light (30K).

Table with 2 columns: Specification and Details. Rows include Touch type (All-plane ten-point projected capacitive, Full-plane five-wire resistive touch), Controller (USB interface), Durability (More than 3,500w times), and Power input (100-240V AC, 250W).

Product characteristics

- Strong aluminum alloy housing, recessed and VESA mounted
- 17 inch TFT LCD panel, high-temperature five-wire resistive touch
- Support six COM, six USB
- Front panel protection class IP65
- Input voltage 100-240VAC

HPC-1770R/C Plan

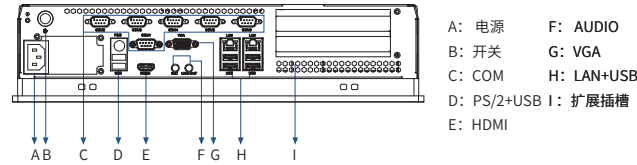
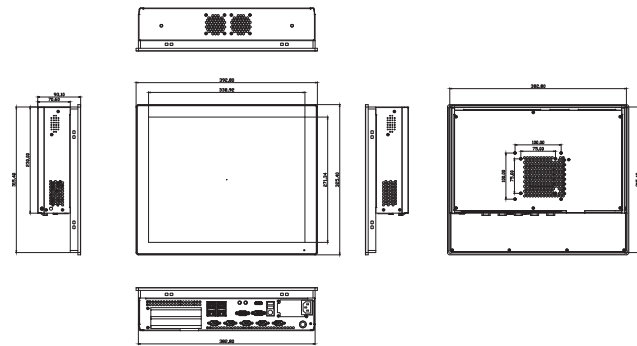


Table with 2 columns: Specification and Details. Rows include Operating temperature (-20°C~+60°C), Storage temperature (-20°C~+60°C), Relative humidity (10~95%@10°C (no condensation)), Vibration (50~500Hz,1.5G,0.15mmpeak-to-peak value), and Shock (10G/peak(11ms sec)).

Ordering information

HPC-1770R/C Resolution ratio 1280\*1024 (4:3)

Packing list

Table with 2 columns: Host machine, clasp, Power cord, and Adapter. Details include HPC-1770R/C\*1, M-BK\*4, M-Power-B-180CM\*1, and 250W/350W.



HT-1200

Standard screen industrial touch display



Specification

LCD specificati on:

Size/Type	12.1"LCD industrial lcd
Resolution ratio	1024*768 (4:3)
Maximum Color	16.7M
Response Time	16ms (Typ.) (Tr+Td)
Backlight	WLED
Backlight MTBF	30K(Hours)
Luminance	350cd/m²
contrast ratio	800:1
vsual angel	80/80/80/80(typ.)(CR≥10)

Touch screen:

Touch	All-plane ten-point projected capacitiveP-cap Multi-Touch
Screen	Full-plane five-wire resistive touch5-Wire Resistive Touch
Touch	More than 335,000,000 times

Products:

Materials	Aluminum-magnesium allou panel
Color	Glitter grey
Installation	embedded, VESA wall mounted
Overall size	312mm X 250mm X49.5mm
Hole size	305mm X 243mm
Weight	About3.55Kg
I/O port	1 X DC IN, 1 X VGA, 1 X DVI, 1 X HDMI, 1 X USB for Touch、1 X DB9 for Touch(optional resistance screen)

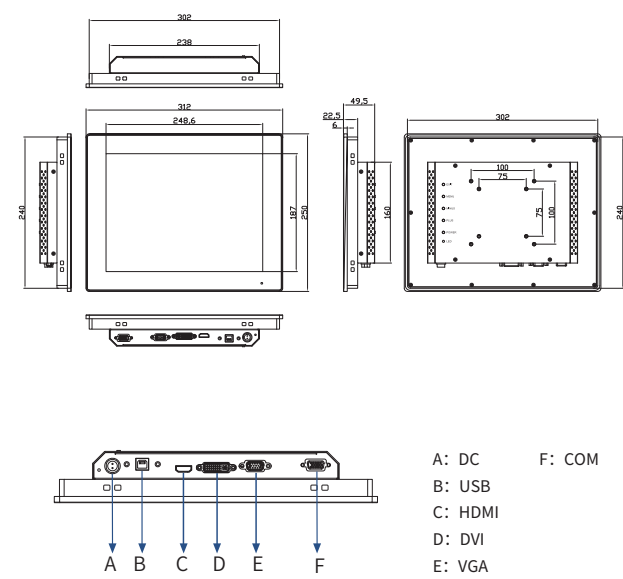
Power:

Power input	DC 12V input
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Product characteristics

- 12.1 inch full-screen design, the front panel supports IP65 protection
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Embedded and VESA wall mount
- Supports VGA/DVI/HDMI signal input
- Navigation power supply interface (anti-fall), DC12V input

HT-1200 Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmpeak-to-peak value
Shock	10G/peak(11ms sec)

Ordering information

HT-1200C (Capacitance)	Resolution ratio 1024*768(4:3)
HT-1200R (Resistance)	Resolution ratio 1024*768(4:3)
HT-1200G (No touch)	Resolution ratio 1024*768(4:3)

Packing list

Host machine	HT-1200*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	PA-1041-81*1
VGA cable	HT180CM VGA cable*1

HT-1500

Standard screen industrial touch display



Specification

LCD specificati on:

Size/Type	15"LCD industrial lcd
Resolution ratio	1024*768 (4:3)
Maximum Color	16.2M
Response Time	8ms (Typ.) (Tr+Td)
Backlight	WLED
Backlight MTBF	50K(Hours)
Luminance	350cd/m²
contrast ratio	700:1
vsual angel	80/80/80/80(typ.)(CR≥10)

Touch screen:

Touch	All-plane ten-point projected capacitiveP-cap Multi-Touch
Screen	Full-plane five-wire resistive touch5-Wire Resistive Touch
Touch	More than 335,000,000 times

Products:

Materials	Aluminum-magnesium allou panel
Color	Glitter grey
Installation	embedded, VESA wall mounted
Overall size	357.2mm X 281mm X 49.5mm
Hole size	350mm X 274mm
Weight	About3.25kg
I/O port	1 X DC IN, 1 X VGA, 1 X DVI, 1 X HDMI, 1 X USB for Touch, 1 X DB9 for Touch(optional resistance screen)

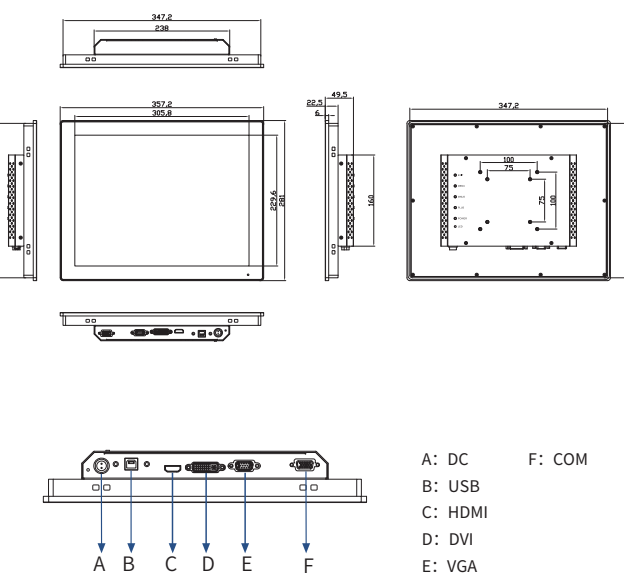
Power:

Power input	DC 12V input
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Product characteristics

- 15 inch full-screen design, the front panel supports IP65 protection
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Embedded and VESA wall mount
- Supports VGA/DVI/HDMI signal input
- Navigation power supply interface (anti-fall), DC12V input

HT-1500 Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmpeak-to-peak value
Shock	10G/peak(11ms sec)

Ordering information

HT-1500C (Capacitance)	Resolution ratio 1024*768(4:3)
HT-1500R (Resistance)	Resolution ratio 1024*768(4:3)
HT-1500G (No touch)	Resolution ratio 1024*768(4:3)

Packing list

Host machine	HT-1500*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	PA-1041-81*1
VGA cable	HT180CM VGA cable*1

HT-1560

Widescreen industrial touch display



Specification

LCD specificati on:

Size/Type	15.6"LCD industrial lcd
Resolution ratio	1920*1080(16:9)
Maximum Color	16.7M
Response Time	35ms (Typ.) (Tr+Td)
Backlight	WLED
Backlight MTBF	30K(Hours)
Luminance	220cd/m²
contrast ratio	800:1
vsual angel	85/85/85/85(typ.)(CR≥10)

Touch screen:

Touch	All-plane ten-point projected capacitiveP-cap Multi-Touch
Screen	Full-plane five-wire resistive touch5-Wire Resistive Touch
Touch	More than 335,000,000 times

Products:

Materials	Aluminum-magnesium allou panel
Color	Glitter grey
Installation	embedded, VESA wall mounted
Overall size	410.5mm X 259.9mm X 51.5mm
Hole size	403mm X 252mm
Weight	About3.86Kg
I/O port	1 X DC IN, 1 X VGA, 1 X DVI, 1 X HDMI, 1 X USB for Touch, 1 X DB9 for Touch(optional resistance screen)

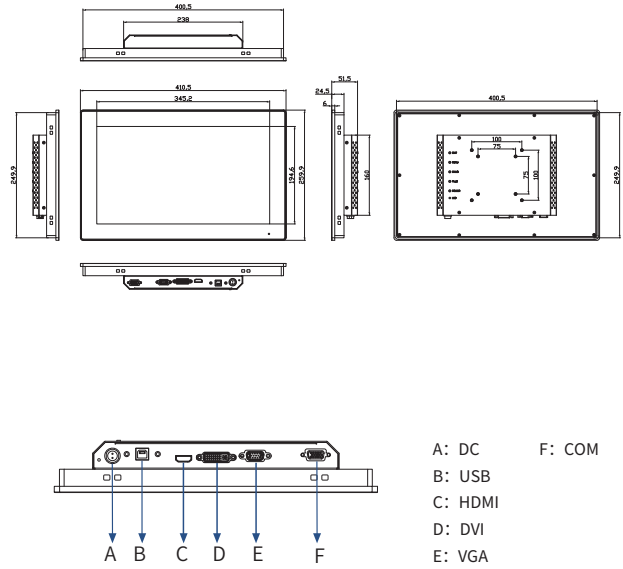
Power:

Power input	DC 12V input
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Product characteristics

- 15.6 inch full-screen design, the front panel supports IP65 protection
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Embedded and VESA wall mount
- Supports VGA/DVI/HDMI signal input
- Navigation power supply interface (anti-fall), DC12V input

HT-1560 Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmpeak-to-peak value
Shock	10G/peak(11ms sec)

Ordering information

HT-1560C (Capacitance)	Resolution ratio 1920*1080(16:9)
HT-1560R (Resistance)	Resolution ratio 1920*1080(16:9)

Packing list

Host machine	HT-1560*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	PA-1041-81*1
VGA cable	HT180CM VGA cable*1

HT-1700

Standard screen industrial touch display



Specification

LCD specificati on:

Size/Type	17"LCD industrial lcd
Resolution ratio	1280*1024 (5:4)
Maximum Color	16.7M
Response Time	5ms (Typ.) (Tr+Td)
Backlight	WLED
Backlight MTBF	30K(Hours)
Luminance	250cd/m²
contrast ratio	1000:1
vsual angel	85/85/80/80(typ.)(CR≥10)

Touch screen:

Touch	All-plane ten-point projected capacitiveP-cap Multi-Touch
Screen	Full-plane five-wire resistive touch5-Wire Resistive Touch
Touch	More than 335,000,000 times

Products:

Materials	Aluminum-magnesium allou panel
Color	Glitter grey
Installation	embedded, VESA wall mounted
Overall size	392.8mm X 325.4mm X 49.5mm
Hole size	386mm X 318mm
Weight	About4.1Kg
I/O port	1 X DC IN, 1 X VGA, 1 X DVI, 1 X HDMI, 1 X USB for Touch, 1 X DB9 for Touch(optional resistance screen)

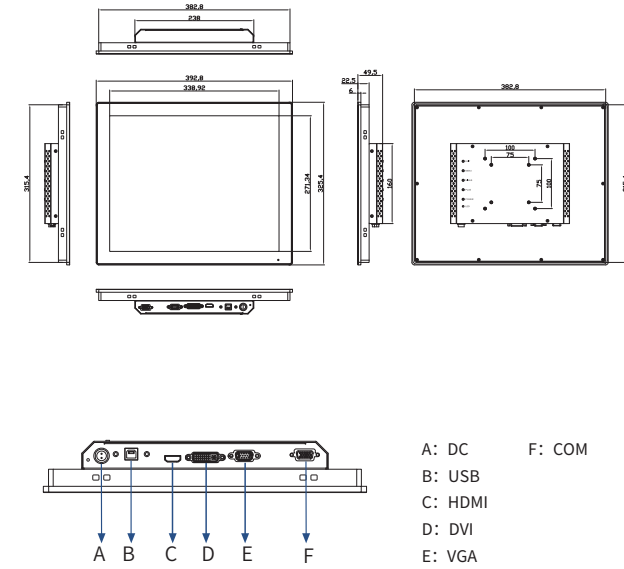
Power:

Power input	DC 12V input
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Product characteristics

- 17 inch full-screen design, the front panel supports IP65 protection
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Embedded and VESA wall mount
- Supports VGA/DVI/HDMI signal input
- Navigation power supply interface (anti-fall), DC12V input

HT-1700 Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmpeak-to-peak value
Shock	10G/peak(11ms sec)

Ordering information

HT-1700C (Capacitance)	Resolution ratio 1280*1024(5:4)
HT-1700R (Resistance)	Resolution ratio 1280*1024(5:4)
HT-1700G (No touch)	Resolution ratio 1280*1024(5:4)

Packing list

Host machine	HT-1700*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	PA-1041-81*1
VGA cable	HT180CM VGA cable*1



HT-1850

Widescreen industrial touch display



Specification

LCD specificati on:

Size/Type	18.5"LCD industrial lcd
Resolution ratio	1366*768 (16:9) /1920*1080(16:9)
Maximum Color	16.7M
Response Time	5ms (Typ.) (Tr+Td)
Backlight	WLED
Backlight MTBF	25K(Hours)
Luminance	250cd/m²
contrast ratio	700:1
vsual angel	89/89/89/89(typ.)(CR≥10)

Touch screen:

Touch	All-plane ten-point projected capacitiveP-cap Multi-Touch
Screen	Full-plane five-wire resistive touch5-Wire Resistive Touch
Touch	More than 335,000,000 times

Products:

Materials	Aluminum-magnesium allou panel
Color	Glitter grey
Installation	embedded, VESA wall mounted
Overall size	458.4mm X 282.4mm X 49.5mm
Hole size	450mm X 275mm
Weight	About3.85Kg
I/O port	1 X DC IN、1 X VGA、1 X DVI、1 X HDMI、 1 X USB for Touch、1 X DB9 for Touch(optional resistance screen)

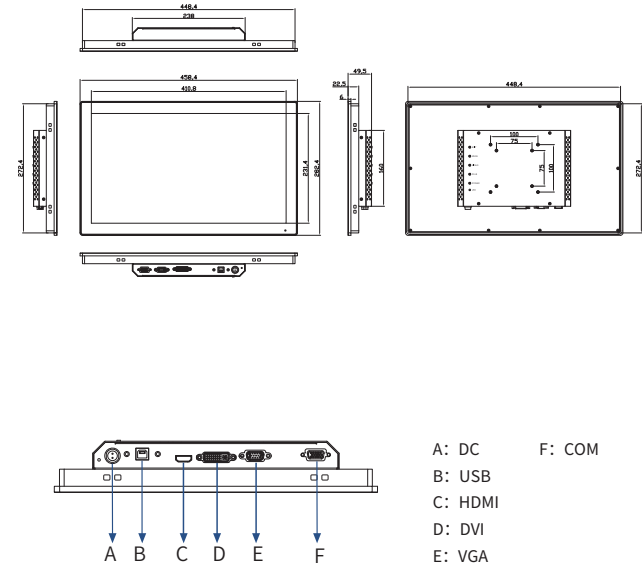
Power:

Power input	DC 12V input
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Product characteristics

- 18.5 inch full-screen design, the front panel supports IP65 protection
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Embedded and VESA wall mount
- Supports VGA/DVI/HDMI signal input
- Navigation power supply interface (anti-fall), DC12V input

HT-1850 Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmpeak-to-peak value
Shock	10G/peak(11ms sec)

Ordering information

HT-1850C (Capacitance)	Resolution ratio 1366*768(16:9)/1920*1080(16:9)
HT-1850R (Resistance)	Resolution ratio 1366*768(16:9)/1920*1080(16:9)
HT-1850G (No touch)	Resolution ratio 1366*768(16:9)/1920*1080(16:9)

Packing list

Host machine	HT-1850*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	PA-1041-81*1
VGA cable	HT180CM VGA cable*1

HT-2150

Widescreen industrial touch display



Specification

LCD specificati on:

Size/Type	21.5"LCD industrial lcd
Resolution ratio	1920*1080 (16:9)
Maximum Color	16.7M, 72%
Response Time	14 (Typ.) (Tr + Td )ms
Backlight	WLED
Backlight MTBF	40K(Hours)
Luminance	250cd/m²
contrast ratio	1000:1
vsual angel	89/89/89/89(typ.)(CR≥10)

Touch screen:

Touch screen	All-plane ten-point projected capacitive P-cap Multi-Touch
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Products:

Materials	Aluminum-magnesium allou panel all rigid box structu
Color	Glitter grey
Installation	embedded, VESA wall mounted
Overall size	531.6mm X 323.4mm X 52.8mm
Hole size	519mm X 309mm
Weight	About5.5Kg
I/O port	1 X DC IN、1 X VGA、1 X DVI、1 X HDMI 1 X USB for Touch

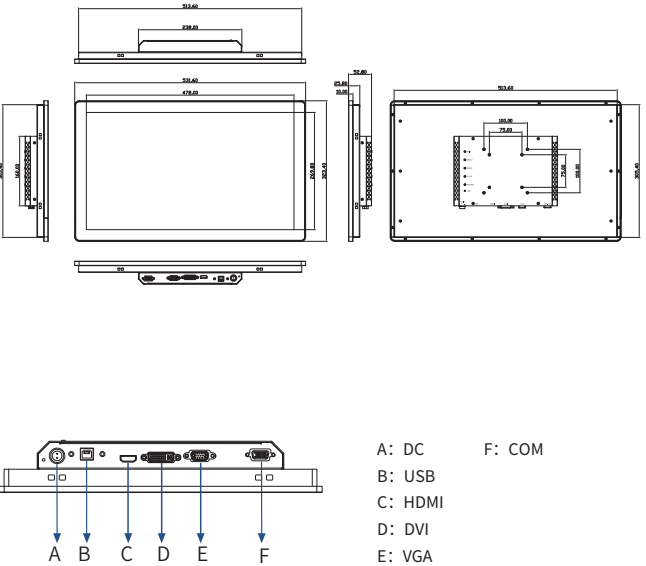
Power:

Power input	DC 12V input
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Product characteristics

- 21.5 inch full-screen design, the front panel supports IP65 protection
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Embedded and VESA wall mount
- Supports VGA/DVI/HDMI signal input
- Navigation power supply interface (anti-fall), DC12V input

HT-2150 Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmpeak-to-peak value
Shock	10G/peak(11ms sec)

Ordering information

HT-2150C (Capacitance)	Resolution ratio 1920*1080(16:9)
HT-2150G (No touch)	Resolution ratio 1920*1080(16:9)

Packing list

Host machine	HT-2150*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	PA-1041-81*1
VGA cable	HT180CM VGA cable*1

HT-2380

Widescreen industrial touch display



Specification

LCD specificati on:

Size/Type	23.8"LCD industrial lcd
Resolution ratio	1920*1080 (16:9)
Maximum Color	16.7M, 72%
Response Time	14 (Typ.) (G to G)ms
Backlight	WLED
Backlight MTBF	40K(Hours)
Luminance	250cd/m²
contrast ratio	1000:1
vsual angel	89/89/89/89(typ.)(CR≥10)

Touch screen:

Touch screen	All-plane ten-point projected capacitive P-cap Multi-Touch
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Products:

Materials	Aluminum-magnesium allou panel all rigid box structu
Color	Glitter grey
Installation	embedded, VESA wall mounted
Overall size	578mm X 360mm X 52.8mm
Hole size	563mm X 345mm
Weight	About7.5Kg
I/O port	1 X DC IN、1 X VGA、1 X DVI、1 X HDMI 1 X USB for Touch

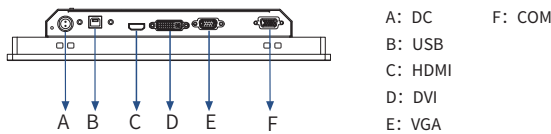
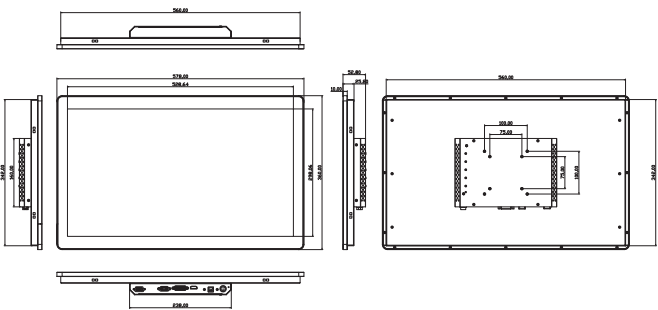
Power:

Power input	DC 12V input
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Product characteristics

- 23.8 inch full-screen design, the front panel supports IP65 protection
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Embedded and VESA wall mount
- Supports VGA/DVI/HDMI signal input
- Navigation power supply interface (anti-fall), DC12V input

HT-2380 Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmpeak-to-peak value
Shock	10G/peak(11ms sec)

Ordering information

HT-2380C (Capacitance)	Resolution ratio 1920*1080(16:9)
HT-2380G (No touch)	Resolution ratio 1920*1080(16:9)

Packing list

Host machine	HT-2380*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	PA-1041-81*1
VGA cable	HT180CM VGA cable*1

HT-2700

Widescreen industrial touch display



Specification

LCD specificati on:

Size/Type	27 "LCD industrial lcd
Resolution ratio	1920*1080 (16:9)
Maximum Color	16.7M, 72%
Response Time	7/5 (Typ.) (Tr/Td)ms
Backlight	WLED
Backlight MTBF	30K(Hours)
Luminance	300cd/m²
contrast ratio	3000:1
vsual angel	89/89/89/89(typ.)(CR≥10)

Touch screen:

Touch screen	All-plane ten-point projected capacitive P-cap Multi-Touch
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Products:

Materials	Aluminum-magnesium allou pane
Color	Glitter grey
Installation	embedded, VESA wall mounted
Overall size	660mm X 398mm X 49.8mm
Hole size	640mm X 378mm
Weight	About8.6Kg
I/O port	1 X DC IN、1 X VGA、1 X DVI、1 X HDMI 1 X USB for Touch

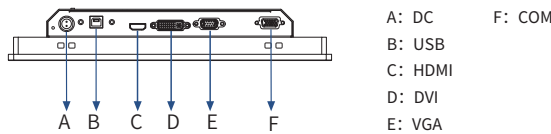
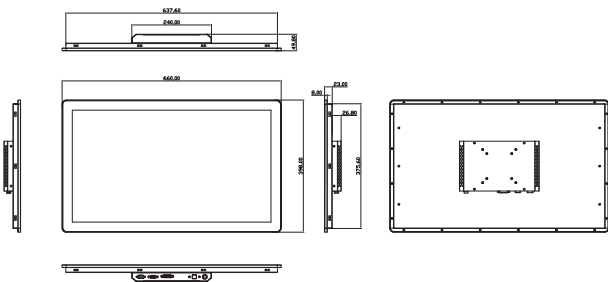
Power:

Power input	DC 12V input
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Product characteristics

- 27 inch full-screen design, the front panel supports IP65 protection
- Support full screen ten-point projected capacitive screen, five wire resistance screen
- Embedded and VESA wall mount
- Supports VGA/DVI/HDMI signal input
- Navigation power supply interface (anti-fall), DC12V input

HT-2700 Plan



Operating temperature	-20°C~+60°C
Storage temperature	-20°C~+60°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmpeak-to-peak value
Shock	10G/peak(11ms sec)

Ordering information

HT-2700C (Capacitance)	Resolution ratio 1920*1080(16:9)
HT-2700G (No touch)	Resolution ratio 1920*1080(16:9)

Packing list

Host machine	HT-2700*1
clasp	M-BK*4
Power cord	M-Power-B-180CM*1
Adapter	PA-1041-81*1
VGA cable	HT180CM VGA cable*1



# GM-300L

## Fanless IPC



### specification

Physical characteristics:

CPU	Intel® Celeron® J1900 CPU, Quad-core, up to 2.42 GHz, TDP 10W
Memory	1 X DDR3L-1333MHz SO-DIMM, up to 8 GB
Storage	1 X mSATA
Network	2 X Intel i211 GBE LAN Chip (10/100/1000 Mbps)
I/Oport	4 X RS232 (One of the modifiableRS- 485), 3 X USB2.0, 1 X USB3.0, 1 X VGA, 1 X HDMI, 2 X LAN
Expansion slot	1 X mSATA, 1 X Wifi/3G/4G supported)
System	Windows7 32/64bit, Windows10 64bit, Linux

Power and mechanism:

Power input	DC 12V
Power port	2pinPhoenix
Weight	About0.65Kg
Size	193mm X 125mm X 51mm
Installation	Embedded and wall mounted

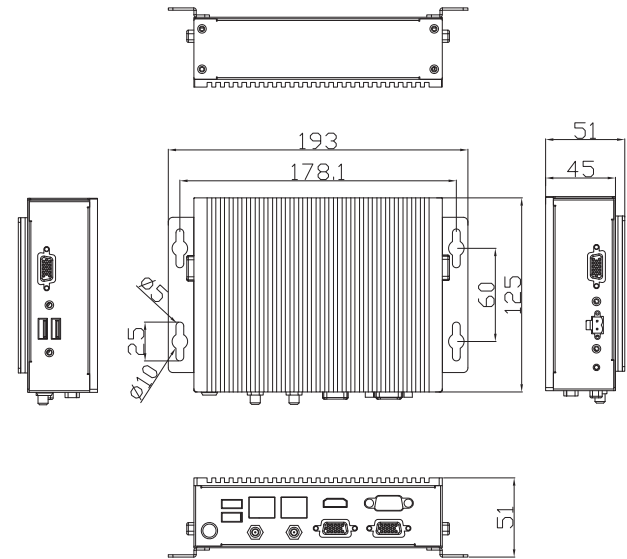
Environment:

Operating temoerature	-20°C+60°C
Storage temperature	-20°C~+75°C
Impact test	IEC 60068-2-27 SSD : 50G @ wallmount, Half-sine, 11ms
Wiggle test	IEC 60068-2-64 SSD : 5Grms, 5Hz至500Hz, 3 Axis
EMC	E13、CE、FCC、EN50155、EN50121-3-2

### Product characteristics

- Compact fanless design, wall-mounted, embedded installation
- Use Intel®Bay Trail J1900
- Support four COM, four USB, and two intel Gigabit network ports
- Provide 1 X VGA, 1 X HDMI, and supports dual display
- DC 12V power supply

### GM-300L Plan



### Ordering information

GM-300L/4G/500G/12V 5.4A (65W power)
GM-300L/8G/128G/12V 5.4A (65W power)

### Packing list

Host machine	GM-300L
clasp	M050103*2
Power cord	M-Power-B-18m
Adapter	FSP065-RHAC2*1

# GM-1100L

## Fanless IPC



### specification

Physical characteristics:

CPU	Intel® Celeron® J1900 CPU, Quad-core, UP to 2.42GHz, TDP 10W
Memory	1 X DDR3L 1333 MHz SO-DIMM, Up to 8 GB
Storage	1 X 2.5寸, 1 X mSATA
Network	2 X Intel i211 GBE LAN Chip (10/100/1000Mbps)
I/Oport	6 X RS232 ( COM6 optional RS485) , 1 X USB 3.0,5 X USB 2.0,1 X VGA,1 X HDMI, 1 X MIC-out,1 X Line-out,2 X LAN
Expansion slot	1 X mSATA
System	1 X Wifi/3G/4G Windows7 32/64bit, Windows10 64bit, Linux

Power and mechanism:

Power input	DC 12V
Power port	2 Core
Size	212mm X 140mm X 61.6mm
Weight	About2.05Kg
Installation	Embedded and wall mounted

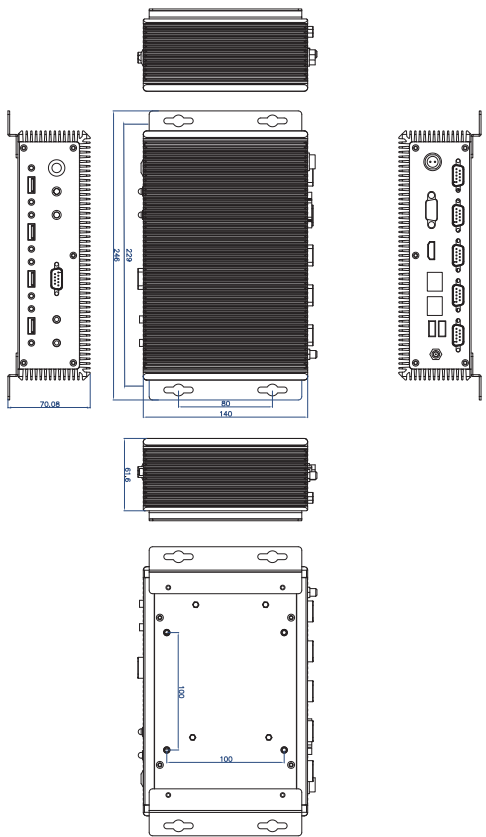
Environment:

Operating temperature	-20°C+60°C
Storage temperature	-20°C~+75t°C
Relative humidity	10~95% <sup>①</sup> 10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmPeak and peak value
Shock	10G/peak (11ms sec)

### Product characteristics

- Compact fanless design, wall-mounted, embedded installation
- Use Intel®Bay Trail J1900
- Support six COM, six USB, and two intel Gigabit network ports
- Provide 1 X VGA, 1 X HDMI, and supports dual display
- Navigation power supply interface (prevent falling off, DC 12V power supply

### GM-1100L Plan



### Ordering information

GM-1100L/4G/500G/12V 5.4A (65W power)
GM-1100L/8G/128G/12V 5.4A (65W power)

### Packing list

Host machine	GM-1100L
clasp	M050103*2
Power cord	M-Power-B-18m
Adapter	FSP065-RHAC2*1

GM-2100H
Fanless IPC



specification

Physical characteristic:

Table with 2 columns: Component and Specification. Rows include CPU (Intel® 6/7/8/9th Generation Core™ i3/i5/i7, Pentium®, Celeron® CPU, LGA1151 (TDP 35w)), CS (Intel® H110), Memory (DDR4-2133/2400, 2 X U-DIMM, up to 32 GB), Storage (1 X mSata, 1 X 2.5" SATA), Network (2 X Realtek® Gbps PCIe Ethernet Controller, RJ45), Other port (2 X USB3.0, 8 X USB2.0, 6 X RS232, 1 X VGA, 1 X HDMI, 1 X PS/2 Port (Keyboard), 1 X GPIO, 1 X MIC/Line-out), Expansion slot (2 X Mini-PCIe (for Msata, Wifi/3G/4G)), and System (Windows 7 32/64bit, Windows 10 64bit, Linux).

Power and mechanism:

Table with 2 columns: Component and Specification. Rows include Power input (DC 9-32V), Power port (2Pin Phoenix), Size (251mm X 191.50mm X 65mm), Weight (About 3.4Kg), and Installation (Embedded and wall mounted).

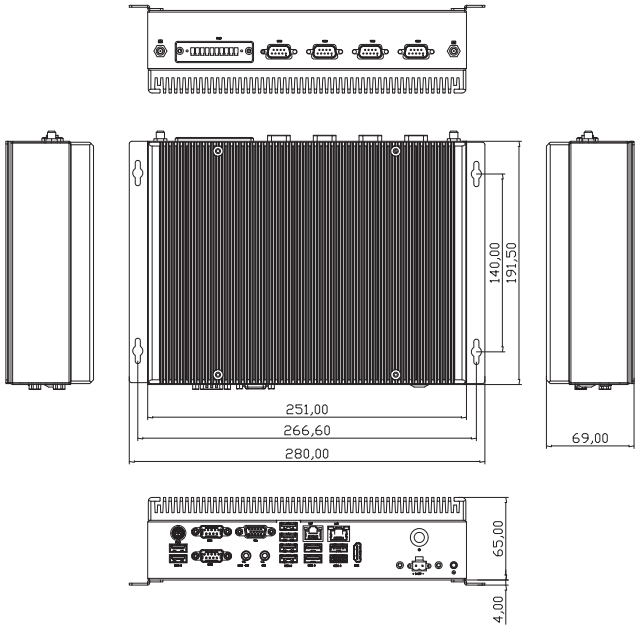
Environment:

Table with 2 columns: Component and Specification. Rows include Operating temperature (-20°C~+60°C), Storage temperature (-20°C~+80°C), Relative humidity (10~95%@10°C (no condensation)), Vibration (50~500Hz, 1.5G, 0.15mm Peak and peak value), and Shock (10G/peak (11ms sec)).

Product characteristics

- Support Intel® 6/7/thCore™ i7/i5/i3 CPU
- Use Intel H110 chipset
- Support ten USB, six COM, and two intel Gigabit network ports
- Provide 1 X VGA, 1 X HDMI, and supports dual display
- Support 9-32v wide voltage input
- Support embedded and wall-mounted installation

GM-2100H Plan



Ordering information

Table with 2 columns: Model and Description. Rows include GM-2100H/4G/500G/19V-9.47A (180W power) and GM-2100H/8G/128G/19V-9.47A (180W power).

Packing list

Table with 2 columns: Component and Specification. Rows include Host machine (GM-2100H), Stand (M050103\*2), Power cord (M-Power-B-18m), and Adapter (FSP180-RHAC2\*1).

GM-2100H-B
Fanless IPC



specification

Physical characteristic:

Table with 2 columns: Component and Specification. Rows include CPU (Intel® 6/7/8/9th Generation Core™ i3/i5/i7, Pentium®, Celeron® CPU, LGA1151, TDP 65W), CS (Intel® H110), Memory (DDR4-2133/2400, 2 X SO U-DIMM, up to 32 GB), Storage (1 X M Sata, 1 X 2.5" Hard Disk), Network (3 X I210/I211 GBE LAN Chip (10/100/1000 Mbps, RJ45), 1 X I219 GBE LAN Chip (10/100/1000 Mbps, RJ45)), Other port (4 X USB3.0, 4 X USB2.0, 2 X RS232, 2 X RS232/RS485/RS422, 1 X DVI-D, 1 X HDMI, 1 X MIC, 1 X Line-out, 1 X GPIO, 1 X Power Button), Expansion slot (1 X M.2 (NGFF) Key-E Slot (PCIe+USB2.0, Support WIFI+BT, 2230), 1 X Mini PCI-E Slot (WIFI+4G/3G, with SIM Card Wafer/Slot)), and System (Windows 10, Windows 8.1, Windows 7, Linux).

Power and mechanism:

Table with 2 columns: Component and Specification. Rows include Power input (DC 12~24V), Power port (3Pin Phoenix), Size (250mm X 190mm X 66mm), Weight (About 2.75Kg), and Installation (Embedded and wall mounted).

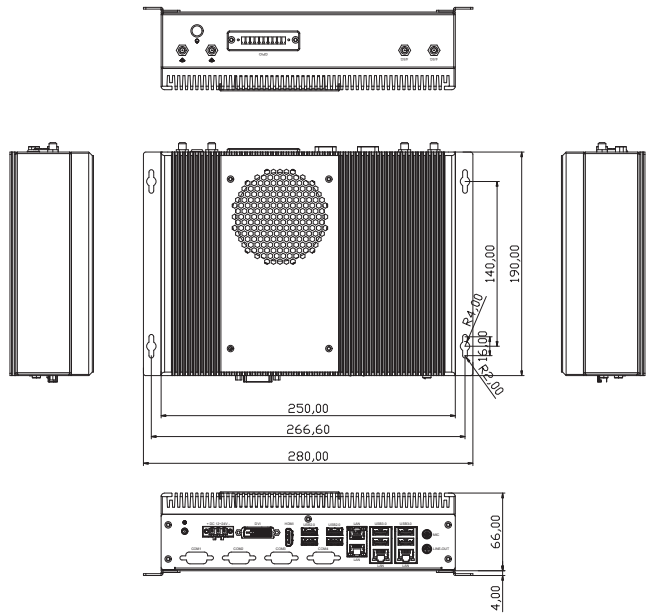
Environment:

Table with 2 columns: Component and Specification. Rows include Operating temperature (-20°C~+60°C), Storage temperature (-20°C~+75°C), Relative humidity (10~95%@10°C (no condensation)), Vibration (50~500Hz, 1.5G, 0.15mm Peak and peak value), and Shock (10G/peak (11ms sec)).

Product characteristics

- Support Intel® 6/7/8/9/thCore™ i7/i5/i3 CPU
- Support two DDR4 S0-DIMMs up to 32GB, dual-channel support
- Support eight USB, four COM, and four intel Gigabit network ports
- Provide 1 X DVI-D, 1 X HDMI, and supports dual display
- Support DC 12-24V input
- Support wall-mounted and desktop installation

GM-2100H-B Plan



Ordering information

Table with 2 columns: Model and Description. Rows include GM-2100H-B/4G/500G/19V-9.47A (180W power) and GM-2100H-B/8G/128G/19V-9.47A (180W power).

Packing list

Table with 2 columns: Component and Specification. Rows include Host machine (GM-2100H-B), Stand (M050103\*2), Power cord (M-Power-B-18m), and Adapter (FSP180-RHAC2\*1).



# GM-1200L

## Fanless IPC



### specification

#### General:

CPU	Intel Elkhart Lake Celeron J6412 CPU, Quad-core up to 2.6GHz,TDP 12W Max
Memory	1 X DDR4 SO-DIMM,2666/2933/3200MHZ 32GB MAX
Expansion port	1 X M.2 KEY_E (Support WLAN) 1 X M.2 KEY_B (Support 4G/5G)
Hard disk	1 X M.2(Key-M,2242/2280 NVMe SSD) 1 X 2.5" SATA3.0 HDD/SSD
Net port	2 X RJ45, i225 Ethernet Controller
Serial port	6 X COM(COM1&COM2optional;RS485,COM3-6 RS232)
USB	6 X USB,built-in 3USB, one TYPE-A USB of them is 90 degree
BIOS	AMI EFI BIOS
Audio	ALC897(3W4Ω)Line Out&Line In
other	1 X SIM SLOT
System	Windows10,Linux

#### Power and mechanism:

Power input	DC 12-28V
Size	248mm X 135mm X 56.50mm
Weight	About1.75kg
Installation	Embedded and wall mounted

#### Display:

Display interface	2 X HDNMI, 1 X VGA, Support HDMI1.4(4096*2160@24Hz or 3840*2160@30Hz) 1X VGA, support 1920*1200@60Hz, 1X VGA(Reserved selection)
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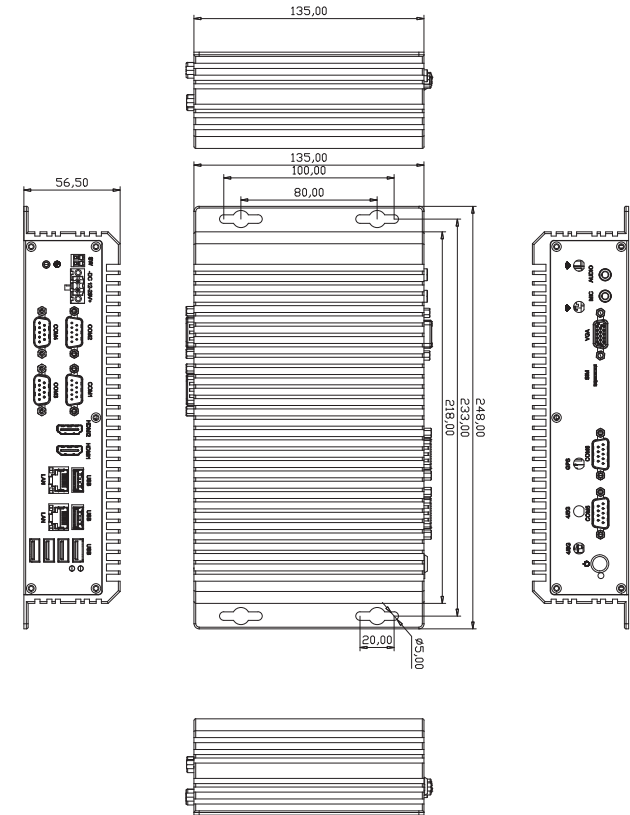
#### Environment:

temperature	Operation: -20℃~60℃, Storage: -25℃~75℃
Relative humidity	Operation: 10%~90%, Storage: 5%~95%, non-condensing

### Product characteristics

- Compact fanless design, wall-mounted
- Use Intel Elkhart Lake Celeron CPU
- Support six COM eight USB, , and two intel Gigabit network ports
- Support VGA/HDMI synchronous/asynchronous display
- Support SATA/M.2 SSD, M.2 WiFi, Mini-PCle
- DC 12-28 Wide pressure design, can be locked DC-IN interface

### GM-1200L Plan



### Ordering information

GM-1200L/4G/500G/12V-5.42A (65W power)
GM-1200L/8G/128G/12V-5.42A (65W power)

### Packing list

Host machine	GM-1200L
Power cord	M-Power-B-18m
Adapter	FSP065-RHAC2*1

# GM-1220

## Fanless IPC



### specification

#### General:

CPU	Intel® 11th Core™ i7-1165G7, i5-1135G7, i3-1115G4 15W default, 12W/28W BIOS optional or Celeron® 6305E CPU, 15W
Memory	DDR4-3200, 2 X SO-DIMM, up to 64 GB
Expansion port	1 X M.2 (Key-E, 2230, PCIe+USB, Wifi+BT) 1 X M.2 (Key-B, 3052, PCIe/ USB 3.0+USB2.0, 4G/5G) 1 X SATA 3.0,1 X M.2
Hard disk	(Key-M, 2280, PCIe x4 NVMe/ SATA, SSD)
Net port	2 X Intel® 1Gbps PCIe Ethernet Controller, RJ45,i219-LM,i225-V
Serial port	3 X RS232, 2 X RS232/ TTL, 1 X RS232/ RS485/ TTL
USB	6 X USB 3.0, 2 X USB 2.0 (Default not eliciting)
BIOS	AMI UEFI BIOS
Audio	Realtek® 5.1 channel HDA Codec, with MIC/Line-out and Amplifier
System	Windows 10, Linux

#### Power and mechanism:

Power input	DC 12V
Size	248mm X 135mm X 56.50mm
Weight	About1.75kg
Installation	Embedded and wall mounted

#### Display:

Display interface	2 X HDMI: max resolution up to 4096*2160@30Hz
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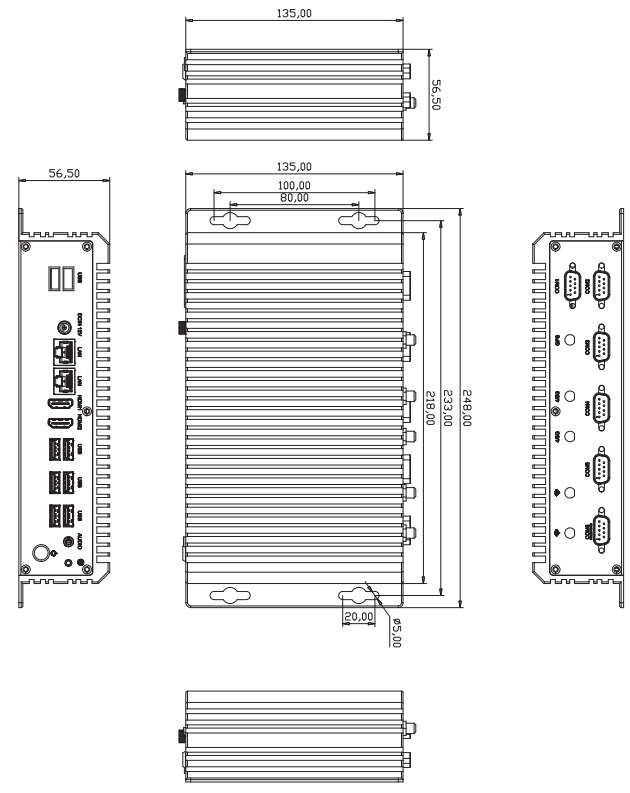
#### Environment:

temperature	Operation: -20℃~60℃, Storage: -25℃~75℃
Relative humidity	Operation: 10%~90%, Storage: 5%~95%, non-condensing

### Product characteristics

- Compact fanless design, wall-mounted
- Use 11th generation Intel Core(Tiger Lake)
- Support six COM eight USB, , and two intel Gigabit network ports
- Provide three M.2, support SSD, WiFi+BT, 4G/5G modules
- DC 12V, can be locked with the DC-IN port

### GM-1220 Plan



### Ordering information

GM-1220/4G/500G/12V-7A (84W power)
GM-1220/8G/128G/12V-7A (84W power)

### Packing list

Host machine	GM-1220
Power cord	M-Power-B-18m
Adapter	FSP084-DHAN3*1

GM-3160

Expandable wide pressure fanless embedded IPC



specification

Physical characteristic:

CPU	Intel® 6/7/8/9th Generation Core™ i3/i5/i7, Pentium®, Celeron® CPU, LGA1151 (TDP under 35w
CS	Intel® H110
Memory	DDR4-2133/2400, 2 X U-DIMM, up to 32 GB
Storage	1 X 2.5"Hard Disk, 1 X Msata
Network	5 X Intel® 1Gbps Ethernet Controller, RJ45 (4 X LAN support POE)
Other port	4 X USB3.0, 2 X USB2.0, 2 X RS232, 2 X RS232/RS485/RS422, 1 X GPIO (optional) 1 X Remote
Expansion slot	2 X PCI, 1 X PCIe or 2 X PCIe
System	Windows7 32/64bit, Windows10 64bit, Linux

Power and mechanism:

Power input	DC 9-32V
Power port	2Pin Phoenix
Size	205mm X 250mm X 138mm
Weight	About5.55Kg
Installation	Embedded and wall mounted

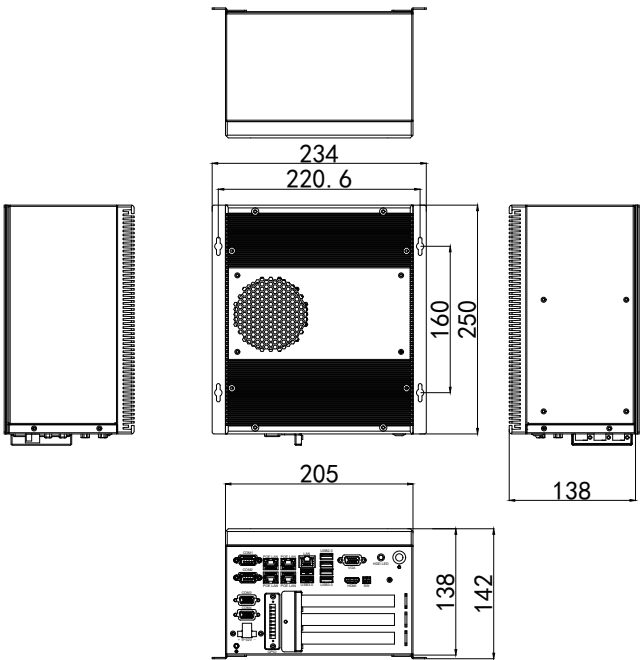
Environment:

Operating temperature	-20°C+60°C
Storage temperature	-20°C~+75°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmPeak and peak value
Shock	10G/peak (11ms sec)

Product characteristics

- Support Intel® 6/7/8/9thCore™ i7/i5/i3 CPU
- Use Intel H110 chipset
- Support five Intel Gigabit Ethernet ports and four POE power ports
- Flexible expansion of PCI/PCIe
- Support 9-32v wide voltage input
- Support for embedded/wall-mounted mounting

GM-3160 Plan



Ordering information

GM-3160-A(1PClex4, 1PClex16 )/19V-9.47A (180W power)
GM-3160-B(1PClex16, 2PCI)/19V-9.47A (180W power)

Packing list

Host machine	GM-3160
Stand	M050103*2
Power cord	M-Power-B-18m
Adapter	FSP180-RHAC2*1

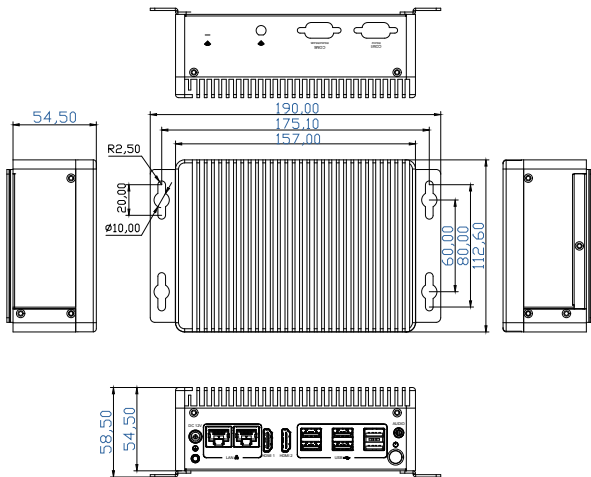
GM-101 Mini pc



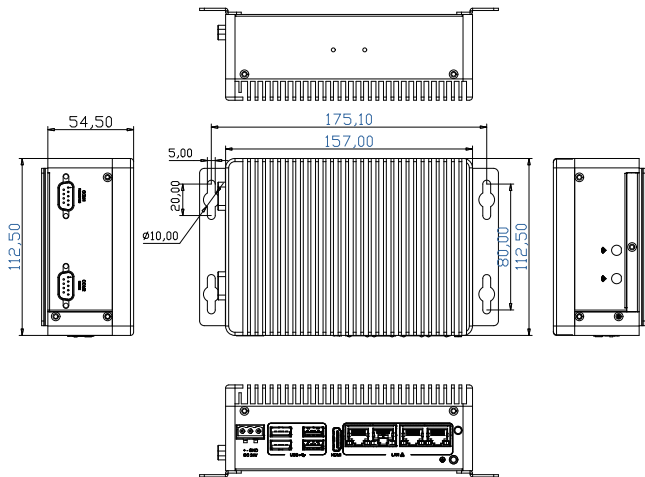
specification

model		GM-101-J6412	GM-101-N97
Physical characteristics	CPU	Intel® Elkhart Lake Celeron® J6412 CPU, Quad-core, up to 2.6 GHz,TDP 10W	Intel® Alder Lake-N N97 CPU, TDP up to 15W
	Memory	DDR4-2666/2933/3200,1 X SO-DIMM, up to 32 GB	DDR4-3200MHz, 1 X SO-DIMM, up to 16GB
	Hard disk	1 X SATA 3.0, 1 X M.2 (Key-M, 2280, Pcle x2 NVMe SSD)	1 X SATA3.0, 1 X M.2 (Key-M, 2280, SATA/PCIE NVMe SSD)
	Expansion port	1 X mSATA, 1 X M.2 (Key-B,3042/3052, PCIe/usB 3.0+USB 2.0, 4G/5G)	1 X Mini-PCle(PCIe+USB2.0, support WiFi+Bluetooth/4G)
	Net port	2 X intel® 1Gbps PCIe Ethernet Controller, RJ45	4 X Intel® i210GbE Ethernet Controller, RJ45
	Serial port	2 X COM(RS485/1Positive 2Negative)	2 X COM(2 X RS232/1 X RS232+1 X RS485(Select Jumper)
	USB	3 X USB 3.0, 3 X USB 2.0	2 X USB 3.0, 2 X USB 2.0
	Audio	Realtek® 5.1 channel HDA Codec,with MIC/Line-out and Amplifier	—
	BIOS	AMI UEFI BIOS	AMI UEFI BIOS
	System	Windows 10, Linux	Windows 10/11, Linux
Display	Display	2 X HDMI	1 X HDMI
Power and mechanis	Power input	DCIN-12V	DC24V
	Size	157 X 112,6 X 54,5mm	157 X 112,5 X 54,5mm
	Installation	Wall-mounted	
Environm ent	Temperature	Operation: -20°C~+60°C, Storage: -25°C~+ 75°C	
	Humidity	Operation: 10%~90%, Storage: 5%~95%, non-condensing	

GM-101-J6412 Plan:



GM-101-N97 Plan:





VC-1160

intelligent mini extensible IPC



specification

Physical characteristic:

CPU	Intel® 6/7/8/9th Generation Core™ i3/i5/i7, Pentium®, Celeron® CPU, LGA1151
CS	Intel® H110
Memory	DDR4-2133/2400, 2 X U-DIMM, up to 32 GB
Storage	1 X 2.5"Hard Disk, 1 X mSATA
Network	5 X Intel® 1Gbps Ethernet Controller, RJ45 (4 X LAN support POE)
Other port	4 X USB3.0, 2 X USB2.0, 2 X RS232, 2 X RS232/RS485/RS422,1 X Remote, 1 X VGA, 1 X HDMI
Expansion slot	1 X PCIe x16, 1 X PCIe x4
System	Windows 10、Windows 8.1、Windows 7、Linux

Power and mechanism:

Power input	AC 250W, ATX
Weight	About4.95kg
Size	250mm*245mm*105mm
Installation	Deskto/Vertical installation

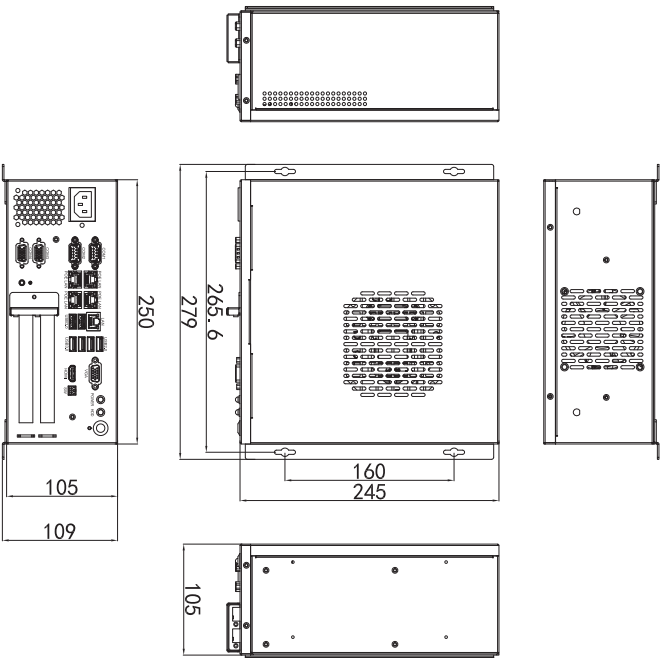
Environment:

Operating temperature	-20°C+60°C
Storage temperature	-20°C~+80°C
Relative humidity	10~95%@10°C（no condensation）
Vibration	50~500Hz,1.5G,0.15mmPeak and peak value
Shock	10G/peak（11ms sec）

Product characteristics

- Support Intel® 6/7/8/9thCore™ i7/i5/i3 CPU
- Use Intel H110 chipset, TPM encryption chip (optional)
- Support five Intel Gigabit Ethernet ports and four POE power supplies
- Provide 1 X VGA, 1 X HDMI, and support dual display
- Support 1 X PCIe x16 and 1 X PCIe x4
- Support remote switch

VC-1160 Plan



Ordering information

VC-1160/4G/500G
VC-1160/8G/128G

Packing list

Host machine	VC-1160
Stand	M050103*2
Power cord	M-Power-B-18m

VC-1163

intelligent mini extensible IPC



specification

Physical characteristic:

CPU	Intel® 6/7/8/9th Generation Core™ i3/i5/i7, Pentium®, Celeron® CPU, LGA1151
CS	Intel® H110
Memory	DDR4-2133/2400, 2 X U-DIMM, up to 32G
Storage	1 X 2.5"Hard Disk, 1 X Msata
Network	5 X Intel® 1Gbps Ethernet Controller, RJ45 (Four of them support Poe)
Other port	4 X USB3.0, 2 X USB2.0, 2 X RS232, 1 X VGA, 1 X HDMI, 1 X Remote , 2 X RS232/RS485/RS422, 1 X GPIO（optional）
Expansion slot	1 X PCIe x16, 2 X PCI
System	Windows 10、Windows 8.1、Windows 7、Linux

Power and mechanism:

Power input	AC 250W, ATX
Weight	About4.95kg
Size	250mm*245mm*130mm（含支架）
Installation	Deskto/Vertical installation

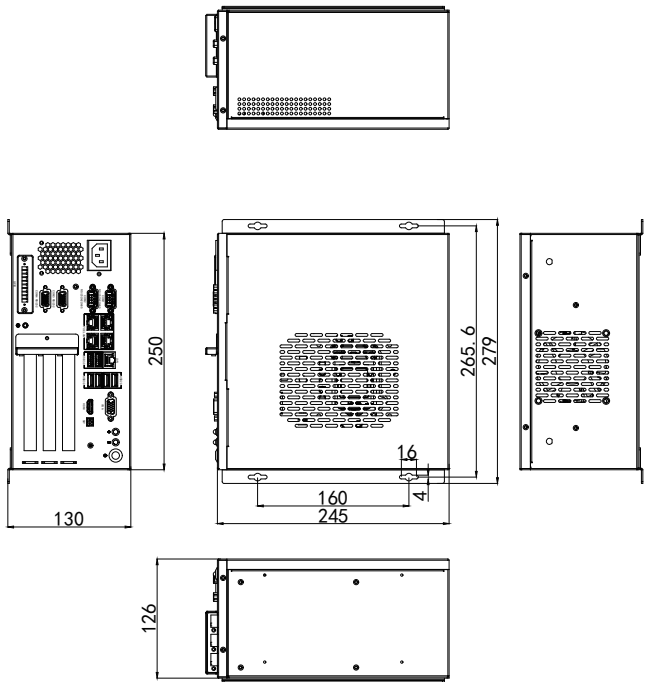
Environment:

Operating temperature	-20°C+60°C
Storage temperature	-20°C~+80°C
Relative humidity	10~95%@10°C（no condensation）
Vibration	50~500Hz,1.5G,0.15mmPeak and peak value
Shock	10G/peak（11ms sec）

Product characteristics

- Support Intel® 6/7/8/9thCore™ i3/i5/i7 CPU
- Use Intel H110 chipset, TPM encryption chip (optional)
- Support five Intel Gigabit Ethernet ports and four POE power supplies
- Provide 1 X VGA, 1 X HDMI, and support dual display
- Support 1 X PCIe x16 and 2 X PCIe x4
- Support remote switch

VC-1163 Plan



Ordering information

VC-1163/4G/500G
VC-1163/8G/128G

Packing list

Host machine	VC-1163
Stand	M050103*2
Power cord	M-Power-B-18m

c p u

p c

Industrial-Ih-one

Industrial touch display

Fanless IPC

IPC chassis

Main board

Server series

Network card module

Switch

Display

# VC-1168

## Vision controller



### specification

Physical characteristic:

CPU	Support Intel® 6/7/8/9th Generation Core / Pentium/ Celeron Desktop CPU, LGA1151 Support MAX CPU TDP 65W
CS	Intel® H110, TDP 6W
Memory	Support DDR42133/2400MHz, 2 X non-ECC SO-DIMM Slot, Up to 32GB
Storage	2 X SATA3.0 7P Connector , 1 X Mini-PCIE (mSATA)
BIOS	AMI UEFI BIOS (Support Watchdog Timer)
Network	1 X I219 GBE LAN Chip (10/100/1000 Mbps, RJ45) 3 X I210/I211AT GBE LAN Chip (10/100/1000 Mbps, RJ45, I211 by default))
COM	2 X RS232/RS422/RS485 (COM1/2, Wafer) 2 X RS232 (COM3/4, Wafer)
USB	4 X USB3.0 (TYPE-A), 4 X USB2.0 (TYPE-A)
Audio	Realtek® Codec, with MIC + Line-out
DIO	16 X DIO(8 X DI Isolation Voltage3750Vrms 8XDO Maximum current per channel650mA, Isolation Voltage5000Vrms)
Light source	4 X PWM Light source control
Display	1 X HDMI,1 X DVI-D
System	Windows7/8.1/10, Linux

Power and mechanism:

Power input	DC 12V-24V
Weight	About4.5kg
Size	215.7mm*159mm*75.35mm
Installation	Deskto/Vertical installation

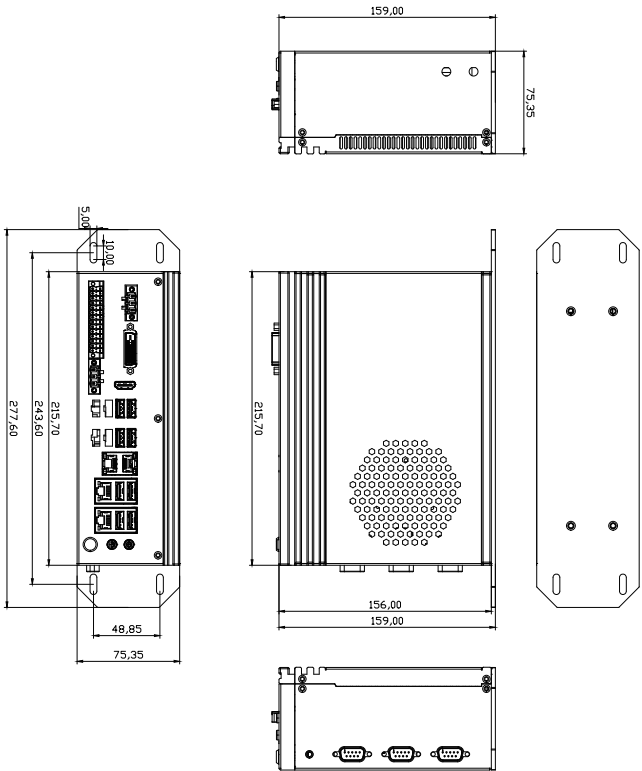
Environment:

Temperature	Storage: -20~75°C Operating: 0~60°C
Humidity	Operation: 10%~90%, Storage: 5%~95%, non-condensing

### Product characteristics

- Support Intel 6/7/8/9代Core i3/i5/i7 CPU
- Use Intel H110 chipset
- Support 8 X USB, 4X COM, 4X LAN
- Provide 1X DVI-D,1X HDM,1X M.2, 1X Mini-PCle
- Wide voltage input (12-24V), light source control

### VC-1168 Plan



### Ordering information

VC-1168/4G/500G
VC-1168/8G/128G

### Packing list

Host machine	VC-1168
Stand	M050103*2
Power cord	M-Power-B-18m

# VC-1152

## Vision controller



### specification

Physical characteristic:

CPU	Intel® 6/7/8/9th Generation Core™ i3/i5/i7, Pentium®, Celeron® CPU, LGA1151
CS	Intel® H110、 Q170
Memory	DDR4-2133/2400, 2 X U-DIMM, up to 32 GB
Storage	1 X 2.5"Hard Disk, 1 X mSATA
Network	5 X Intel® 1Gbps Ethernet Controller, RJ45 (4 X LAN support POE)
Other port	4 X USB3.0, 2 X USB2.0, 2 X RS232, 2 X RS232/RS485/RS422,1 X Remote, 1 X DIO 1 X VGA, 1 X HDMI
System	Windows7 32/64bit, Windows10 64bit, Linux

Power and mechanism:

Power input	6-30V DC
Power port	2Pin Phoenix
Weight	About3.2kg
Size	246mm*91mm*245mm
Installation	Deskto/Vertical installation

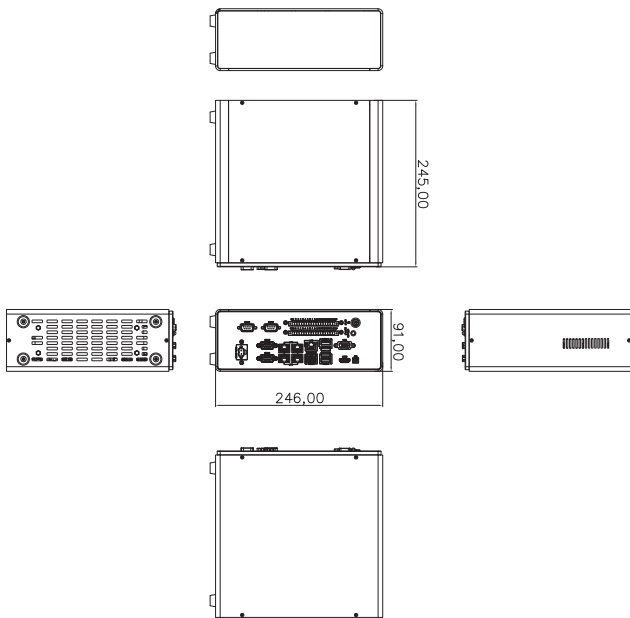
Environment:

Operating temperature	-20°C+60°C
Storage temperature	-20°C~+75°C
Relative humidity	10~95%@10°C (no condensation)
Vibration	50~500Hz,1.5G,0.15mmPeak and peak value
Shock	10G/peak (11ms sec)

### Product characteristics

- Support Intel 6/7/8/9代Core i7/i5/i3 CPU
- Use Intel H110 chipset
- Support five Intel Gigabit Ethernet ports and four POE power ports
- Provide 1 X VGA, 1 X HDMI, and supports dual display
- Support 6-30V wide voltage input
- Support desktop and vertical installation

### VC-1152 Plan



### Ordering information

VC-1152/4G/500G/19V-9.47A
VC-1152/8G/128G/19V-9.47A

### Packing list

Host machine	VC-1152
Stand	M050103*2
Power cord	M-Power-B-18m
Adapter	FSP180-RHAC2*1

# IPC-2120

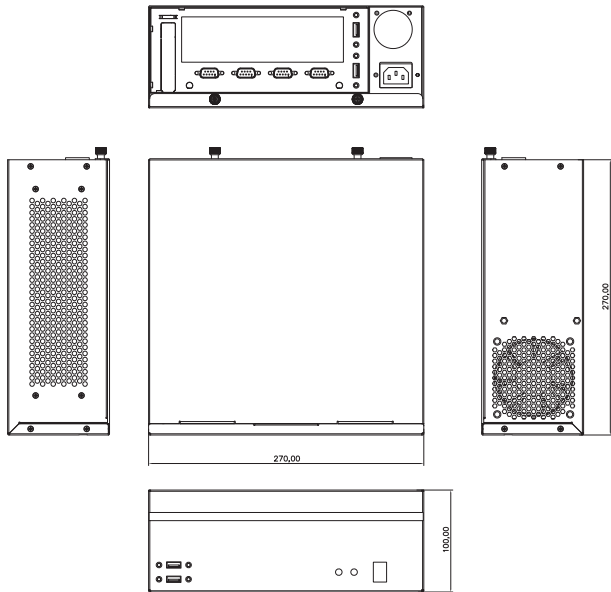
## Compact small chassis



### specification

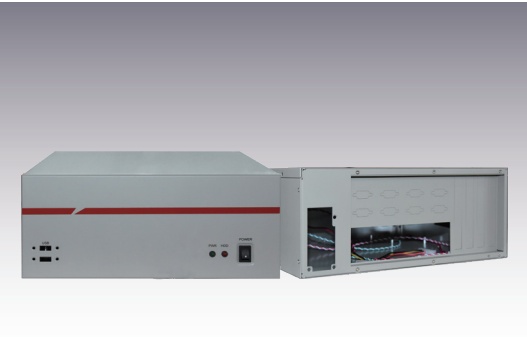
LEDindication	POWER LED, HDD LED
USB	2 X USB 2.0
Control	POWER SW
Hard disk bracket	2 X 2.5inch
Case size	270 X 270 X 100mm
Weight	About2.5Kg
Power	Standard1U-Flex power

IPC-2120 Plan



# IPC-3120

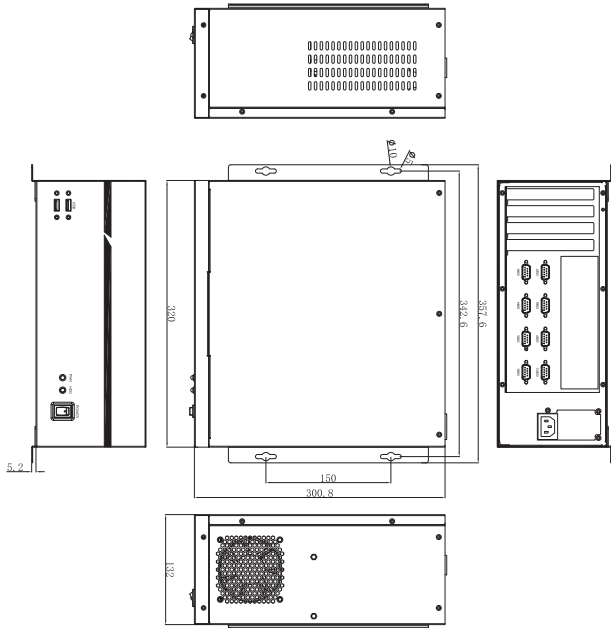
## Wall-mounted multi-serial chassis



### specification

LEDindication	POWER LED, HDD LED
USB	2 X USB 2.0
Control	POWER SW
Hard disk bracket	1 X 2.5inch, 1 X 2.5/3.5inch
Case size	320 X 300.8 X 132mm
Weight	About3.25Kg
Power	Standard1U-Flex power

IPC-3120 Plan



# IPC-2100T

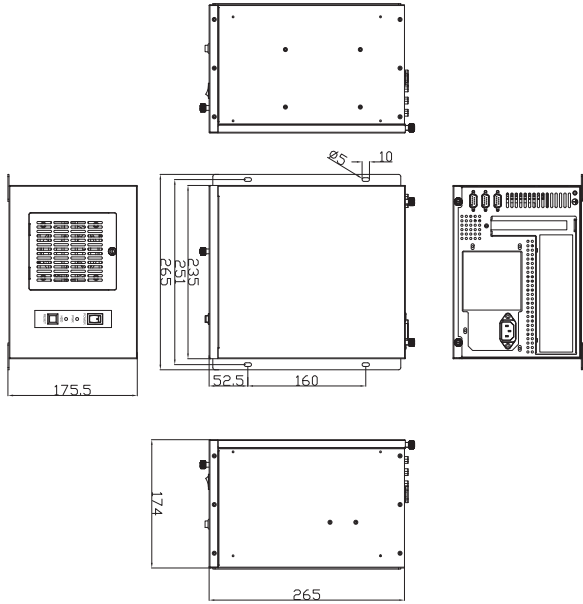
## Compact small chassis



### specification

LEDindication	POWER LED, HDD LED
USB	2 X USB 2.0
Control	POWER SW, RESET SW
Hard disk bracket	1 X 2.5/3.5inch
Case size	235 X 265 X 174mm
Weight	About2.8Kg
Power	StandardATX power

IPC-2100T Plan



# IPC-5120

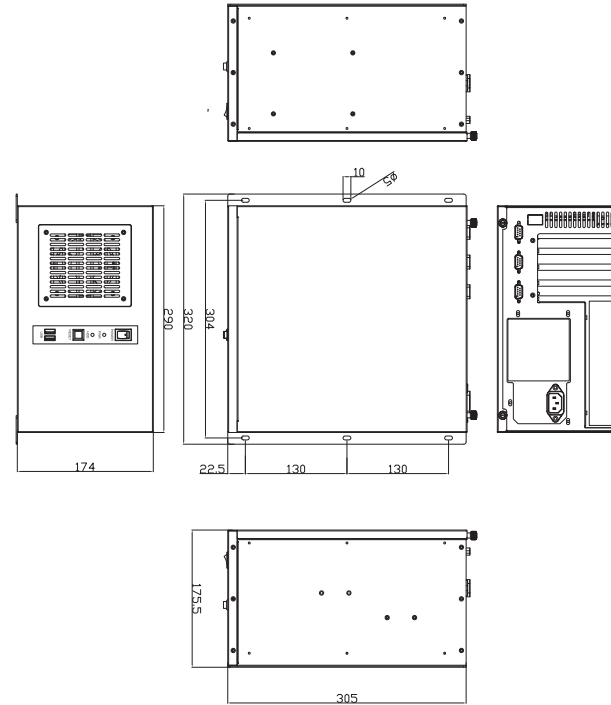
## Wall-mounted multi-expansion chassis



### specification

LEDindication	POWER LED, HDD LED
USB	2 X USB 2.0
Control	POWER SW, RESET SW
Hard disk bracket	1 X 2.5inch, 1 X 3.5inch or 2 X 2.5inch
Case size	290 X 305 X 174mm
Weight	About4.56Kg
Power	Standard ATX power

IPC-5120 Plan





IPC-7120

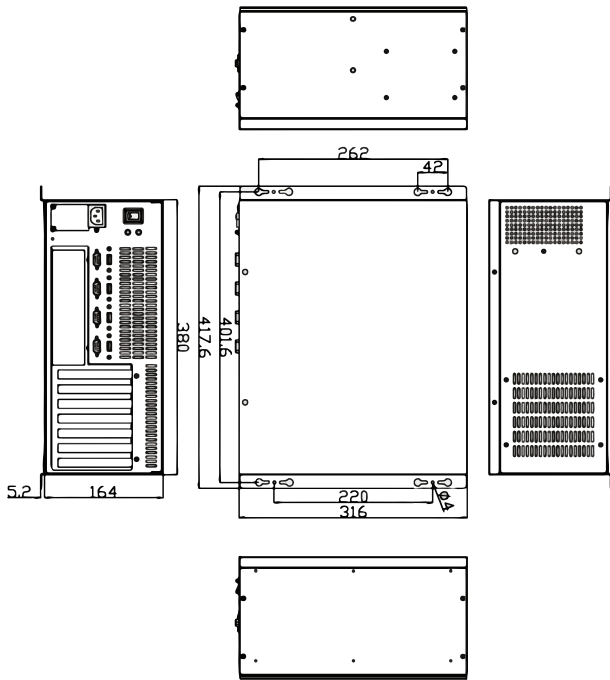
Wall-mounted multi-expansion chassis



specification

LEDindication	POWER LED, HDD LED
USB	4 X USB 2.0
Control	POWER SW
Hard disk bracket	1 X 3.5inch, 1 X 2.5/3.5inch
Case size	380 X 316 X 164mm
Weight	About5.05Kg
Power	Standard1U-Flex power

IPC-7120 Plan



IPC-H510

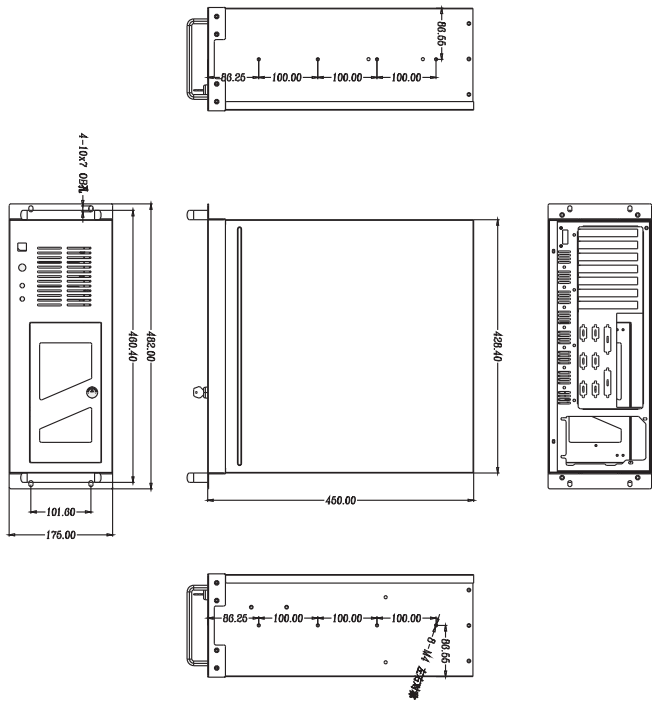
Overhead type IPC



specification

LEDindication	POWER LED, HDD LED
USB	2 X USB 2.0
Control	POWER SW
Hard disk bracket	1 X 2.5inch, 2 X 3.5inch, 2 X 5.25inch
Case size	428.4 X 450 X 175mm
Weight	About5.05Kg
Power	Standard ATX power

IPC-H510 Plan



IPC-7130

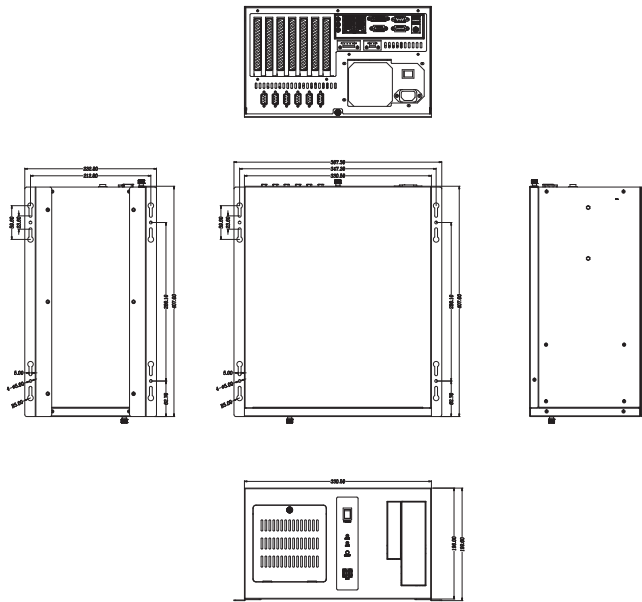
Wall-mounted multi-expansion chassis



specification

LEDindication	POWER LED, HDD LED
USB	2 X USB 2.0
Control	POWER SW, RESET SW
Hard disk bracket	1 X 3.5inch, 1个5.25inch, 1 X 2.5/3.5inch
Case size	330.5 X 407 X 196mm
Weight	About7.2Kg
Power	Standard ATX power

IPC-7130 Plan



IPC-H610

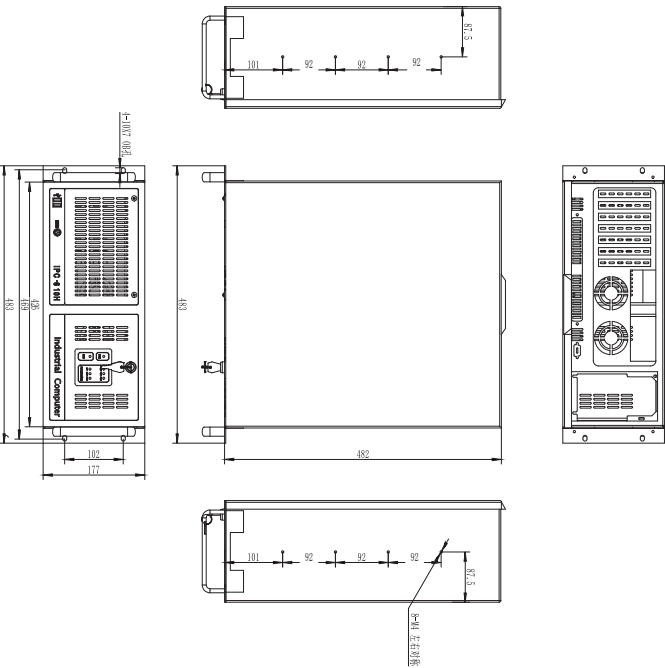
Overhead type IPC



specification

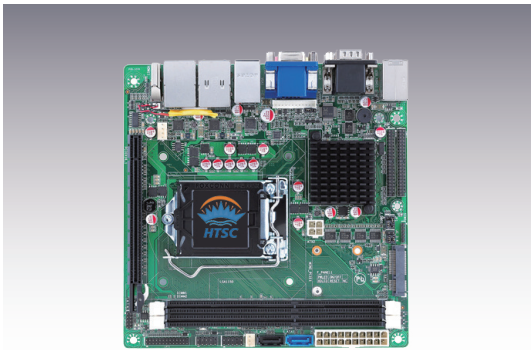
LEDindication	POWER LED, HDD LED
USB	2 X USB 2.0
Control	POWER SW, RESET SWt
Hard disk bracket	1 X 2.5inch, 1 X 3.5inch, 3 X 5.25inch
Case size	426 X 482 X 177mm
Weight	About11.85Kg
Power	Standard ATX power

IPC-H610 Plan



MB-I810

4th Gen Intel® Core™ Processor ATX



specification

General:

CPU	Intel® 4th Generation Core /Pentium /Celeron CPU , LGA1150 , Support MAX CPU TDP 65W
CS	Intel® H81
Memory	2 X DDR3 1333/1600 MHz DIMM , Up to 16GB
Hard disk	1 X SATA 2.0 , 1 X SATA 3.0 , 1 X mSATA
Expansion slot	1 X PCIe X16 (PCIe 16X, GEN2) , 1 X Mini PCIe
BIOS	AMI UEFI BIOS
System	Windows 7/8/10 , Linux

I/O port:

Ethernet	2 X Realtek GBE LAN (10/100/1000 Mbps, RJ45)
Serial port	2 X RS232 (COM1/2 , Rear IO) , 4 X RS232 (COM3/4/5/6 , Header)
USB	2 X USB3.0 (TYPE-A, Rear IO) 8 X USB2.0 (TYPE-A, Rear IO)
Audio	Realtek ALC662 5.1 Channel HDA Codec , Support MIC-IN/LINE-OUT
PS/2	1 X PS/2 (keyboard)
Parallel port	1 X LPT
GPIO	1 X 8-bit GPIO

Display:

Display	1 X VGA , 1920x1200@60Hz
interface	1 X HDMI , 4096x2304@24Hz

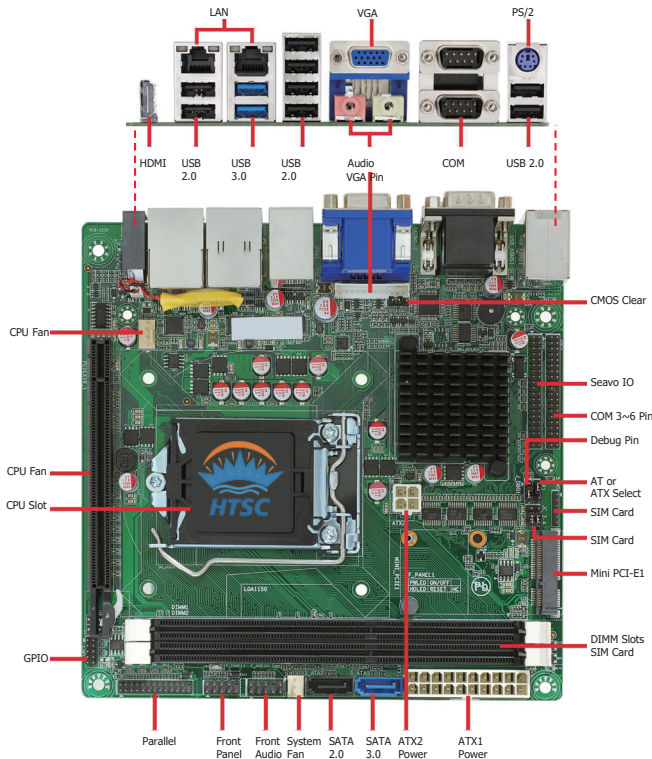
Product characteristics

- Support Intel 4 generation Core i3/i5/i7 processors
- Use intel H81 chipset
- Support 6XCOM, 10XUSB, 2Xgigabit LAN
- Provide 1XHDMI, 1 X VGA, support dual screen different display
- Provide 1xPCIex16, 2X Mini-PCIe For mSATA, wifi/3G/4G

Machinery and evironment:

Size	170mm X 170mm
Power	ATX (20P+4P)
Temperature	Operation: 0°C~60°C, Storage: -25°C~75°C
Humidity	Operation: 10%~90%, Storage: 5%~95%, non-condensing

Interface diagram:



MB-I310C

6th/7th/8th/9th Gen Intel® Core™ Processor ATX



specification

General

CPU	Intel® 6/7/8/9th Generation Core /Pentium / Celeron CPU , LGA1151 , Support MAX CPU TDP 65W
CS	Intel® H310C
Memory	2 X DDR4 2133/2400/2666 MHz UDIMM , Up to 32GB
Hard disk	2 X SATA 3.0 , 1 X mSATA
Expansion slot	1 X PCIe X16 (PCIe 16X, GEN2) 1 X Mini PCIe (WIFI/4G)
BIOS	AMI UEFI BIOS
System	Windows 7/8/10 , Linux

I/O port:

Ethernet	2 X Realtek GBE LAN (10/100/1000 Mbps, RJ45)
Serial port	2 X RS232 (COM1/2 , Rear IO) 4 X RS232 (COM3/4/5/6 , Header)
USB	2 X USB3.0 (TYPE-A, Rear IO) 8 X USB2.0 (TYPE-A, Rear IO)
Audio	Realtek ALC662 5.1 Channel HDA Codec , Support MIC-IN/LINE-OUT
PS/2	1 X PS/2 (keyboard)
Parallel port	1 X LPT
GPIO	1 X 8-bit GPIO

Display:

Display	1 X VGA , 1920x1200@60Hz
interface	1 X HDMI , 4096x2304@24Hz

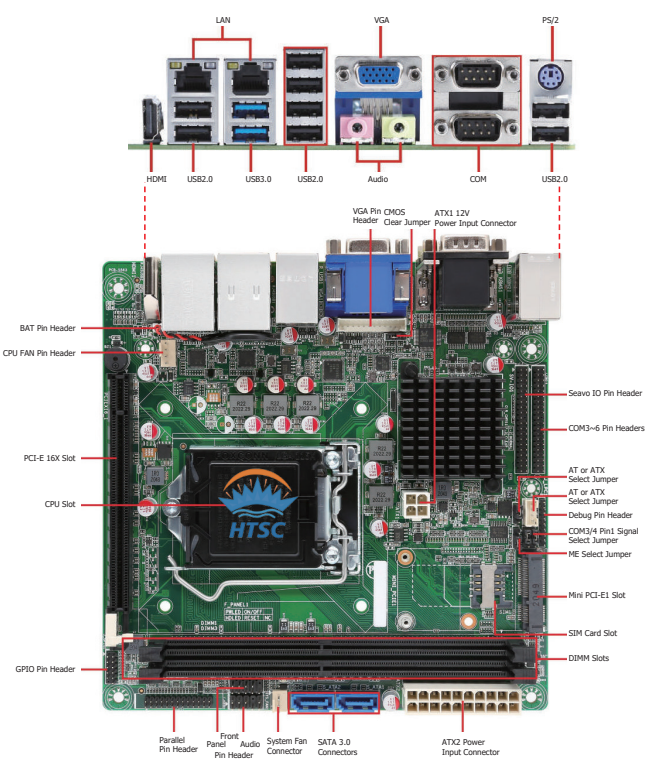
Product characteristics

- Support intel 6/7/8/9 generation Core i3/i5/i7 processors
- Use intel H310C chipset
- Support 6XCOM, 10XUSB, 2Xgigabit LAN
- Provide 1XHDMI, 1 X VGA, support dual screen different display
- Provide 1xPCIex16, 2X Mini-PCIe For mSATA, wifi/3G/4G

Machinery and evironment:

Size	170mm X170mm
Power	ATX (20P+4P)
Relative humidity	Operation: 0°C~60°C, Storage: -25°C~75°C Operation: 10%~90%, Storage: 5%~95%, non-condensing

Interface diagram:





MB-M810

4 th Gen Intel® Core™ Processor ATX



specification

General:

CPU	Intel® 4th Generation Core /Pentium /Celeron CPU, LGA1150 , Support MAX CPU TDP 95W
CS	Intel® H81
Memory	2 X DDR3 1333/1600 MHz UDIMM , Up to 16GB
Hard disk	2 X SATA 2.0 , 2 X SATA 3.0
Expansion slot	1 X PCIe X16 (PCIe 16X, GEN2) 1 X PCIe X4 (PCIe 4X, GEN2), 2 X PCI
BIOS	AMI UEFI BIOS
System	Windows 7/8/10 , Linux

I/O port:

Ethernet	2 X Intel GBE LAN (10/100/1000 Mbps, RJ45)
Serial port	1 X RS232/RS422/RS485 (COM1 , Rear IO) 1 X RS232/RS422/RS485 (COM2 , Header)
USB	4 X RS232 (COM3/4/5/6 , Header) 2 X USB3.0 (TYPE-A , Rear IO) 4 X USB2.0 (TYPE-A , Rear IO) 4 X USB2.0 (Header)
Audio	High Definition Audio Codec , Support MIC-IN/LINE-IN/LINE-OUT
PS/2	1 X PS/2 (Keyboard & Mouse)
Parallel port	1 X LPT
GPIO	1 X 8-bit GPIO

Display:

Display	1 X VGA , 1920x1200@60Hz
interface	1 X HDMI , 4096x2304@24Hz 1 XDVI , 1920x1200@60Hz

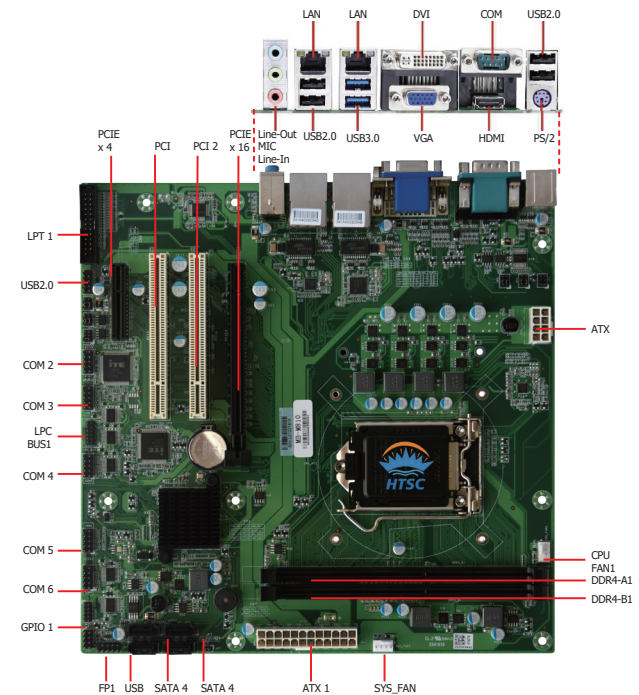
Product characteristics

- Supports Intel 4th generation Core i3/i5/i7 processors
- Usd intel H81 chipset
- Support 6X COM, 2 X USB 3.0, 6X USB 2.0, 2X Intel Gigabit Ethernet port
- Provide 1 X DVI, 1XHDMI, 1 X VGA, support dual screen different display
- Provide 1xPCIex16, 1xPCIex4, 2xPCI,

Machinery and evironment:

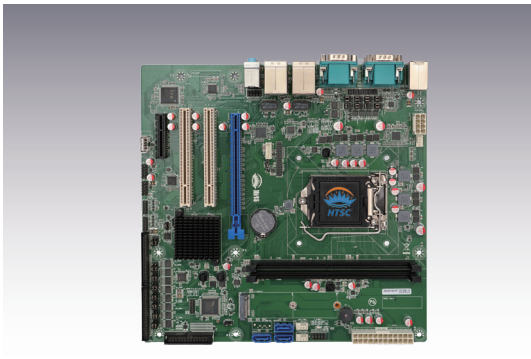
Size	244mm X 244mm
Power	ATX (24P+8P)
Temperature	Operation: 0°C~60°C, Storage: -25°C~75°C
Humidity	Operation: 10%~90%, Storage: 5%~95%, non-condensing

Interface diagram:



MB-M310C

6th/7th/8th/9th Gen Intel® Core™ Processor ATX



specification

General:

CPU	Intel® 6/7/8/9th Generation Core /Pentium / Celeron CPU , LGA1151 , Support MAX CPU TDP 65W
CS	Intel® H310C
Memory	2 X DDR4 2133/2400/2666 MHz UDIMM , Up to 32GB
Hard disk	3 X SATA 3.0
Expansion slot	1 X PCIe X16 (PCIe 16X, GEN2) 1 X PCIe X4 (PCIe 4X, GEN2) 2 X PCI
BIOS	AMI UEFI BIOS
System	Windows 7/8/10 , Linux

I/O port:

Ethernet	2 X Intel GBE LAN (10/100/1000 Mbps, RJ45)
Serial port	10COM
USB	4 X USB3.0 (TYPE-A , Rear IO) 2 X USB2.0 (TYPE-A , Rear IO) 4 X USB2.0 (Header)
Audio	High Definition Audio Codec , Support MIC-IN/LINE-IN/LINE-OUT
PS/2	1 X PS/2 (Keyboard & Mouse)
Parallel port	1 X LPT
GPIO	1 X 8-bit GPIO

Display:

Display	1 X VGA , 1920x1200@60Hz
interface	1 X HDMI , 4096x2304@24Hz 1 XDVI , 1920x1200@60Hz

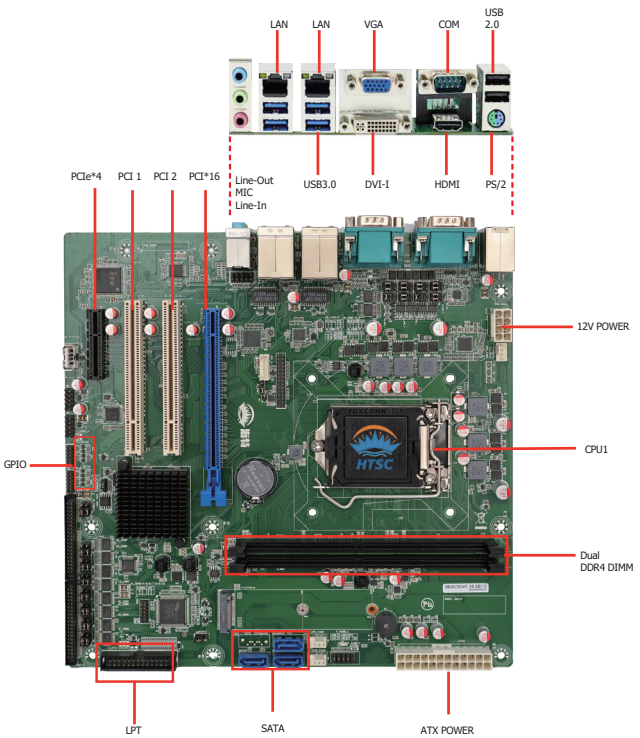
Product characteristics

- Support Intel 6/7/8/9 generation Core i3/i5/i7 processors
- Use intel H310C chipset
- Supports 4 x USB3.0, 6 x USB2.0,2 x Intel GbEs,10 xCOM
- Provide 1 X DVI-D, 1XHDMI, 1 X VGA, support dual screen different display
- Provide 1xPCIex16, 1xPCIex4, 2xPCI,

Machinery and evironment:

Size	244mm X 244mm
Power	ATX (24P+8P)
Operation temperature	0°C~60°C; 5%~95% ( non-condensing)
Storage environment	-20°C~80°C, 5%~95% ( non-condensing)

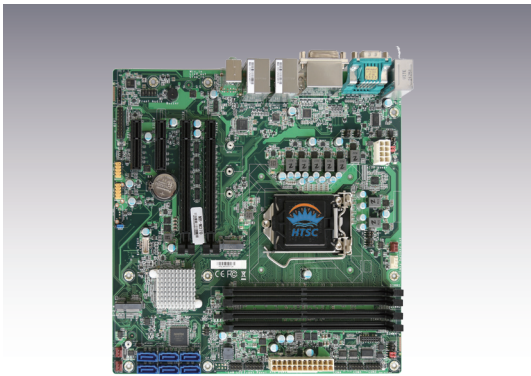
Interface diagram:





MB-M370

8th/9th Gen Intel® Core™ Processor ATX



specification

General:

CPU	Intel® 8/9th Generation Core /Pentium /Celeron CPU , LGA1151 , Support MAX CPU TDP 95W
CS	Intel® Q370
Memory	4 X DDR4 2400/2666 MHz DIMM , Up to 128GB
Hard disk	6 X SATA 3.0 , RAID 0/1/5/10 , 1 X M.2 2242/2260/2280 M key (NVMe)
Expansion slot	2 X PCIe X16 (PCIe 1 x16X or 2 x8X, GEN3) 2 X PCIe X4 (PCIe 4X, GEN3) 1 x M.2 2230 E key (USB2.0/intel CNVi)
BIOS	AMI SPI 128Mbit
System	Windows 10 64-bit , Linux

I/O port:

Ethernet	2 X Intel GbE LAN (10/100/1000 Mbps, RJ45)
Serial port	1 X RS232/RS422/RS485 (COM1 , Rear IO) 1 X RS232/RS422/RS485 (COM2 , Header) 2 X RS232 (COM3/4 , Header)
USB	2 X USB3.1 Gen 2 (TYPE-A , Rear IO) 2 X USB3.1 Gen 2 (Header) 2 X USB3.1 Gen 1 (TYPE-A , Rear IO) 2 X USB2.0 (TYPE-A , Rear IO) 1 X USB2.0 (TYPE-A) , 3 X USB2.0 (Header)
Audio	Realtek ALC888 7.1+2 Channel HDA Codec , Support MIC-IN/LINE-OUT
PS/2	1 X PS/2 (Keyboard & Mouse)
GPIO	1 X 8-bit DIO

Display:

Display interface	1 X DP , up to 4096x2106 @ 60Hz 1 X HDMI , up to 4096x2106 @ 24Hz 1 XDVI , up to 1920x1200 @ 60Hz
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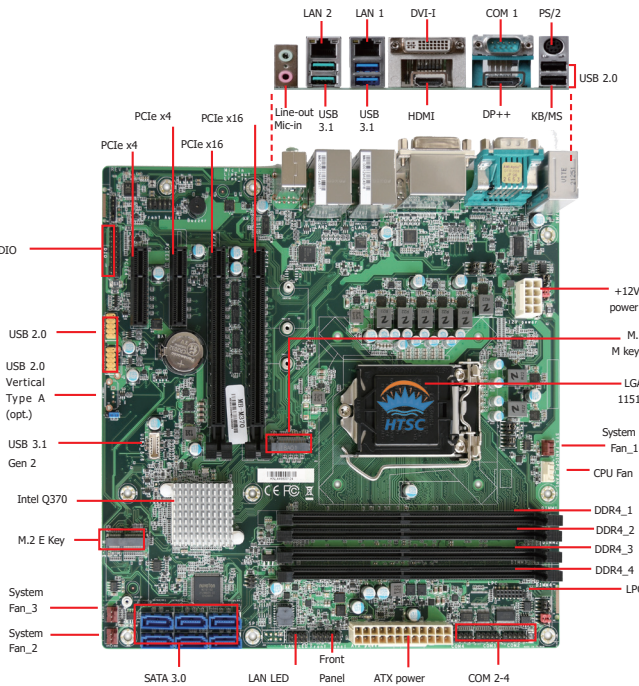
Product characteristics

- Support Intel 8/9 generation Core i3/i5/i7 processors
- Use intel Q370 chipset
- Support 4X COM,2 X USB3.1Gen1, 4 x USB3.0, 6 X USB2.0,2 X intel gigabit ethernet port
- Provide 1 X DP++, 1 X DVI-D, 1 X HDMI, support dual display
- Support 2 X PCIe x16 , 2 X PCIe x4

Machinery and evironment:

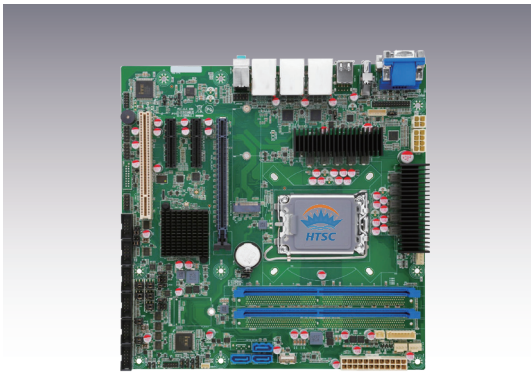
Size	244mm X 244mm
Power	ATX (24P+8P)
Temperature	Operating: -5 to 66°C, Storage: -30 to 60°C with RTC Battery; -40 to 85°C without RTC Battery
Humidity	Operating: 5 to 90% RH Storage: 5 to 90% RH

Interface diagram:



MB-M610

12th/13th Gen Intel® Core™ Processor ATX



specification

General:

CPU	Intel® 12/13th Generation Core /Pentium /Celeron CPU , LGA1700
CS	Intel® H610
Memory	2 X DDR4 3200 MHz DIMM , Up to 64GB
Hard disk	3 X SATA 3.0 , 1 X M.2 2242/2280 M key (SATA)
Expansion slot	1 X PCIe X16 (PCIe 16X, GEN3) 2 X PCIe X4 (PCIe 2X, GEN3) 1 X PCI
BIOS	AMI UEFI BIOS
System	Windows 10/11 , Linux

I/O port:

Ethernet	3 X Intel GbE LAN (10/100/1000 Mbps, RJ45)
Serial port	4 X RS232 (COM1/2/5/6 , Header) 1 X RS232/RS422/RS485 (COM3 , Header) 1 X RS232/RS485 (COM4 , Header)
USB	4 X USB3.0 (TYPE-A , Rear IO) 4 X USB2.0 (TYPE-A , Rear IO) 1 X USB2.0 (TYPE-A) 4 X USB2.0 (Header)
Audio	Realtek Audio HDA Codec , Support MIC-IN/LINE-IN/LINE-OUT
GPIO	1 X 8-bit GPIO

Display:

Display interface	1 X DP , up to 4096 x 2160@30Hz 1 X VGA , up to 1920x1200@60Hz 1 X DVI , up to 1920x1200@60Hz 1 X EDP , up to 4096x2304@60Hz
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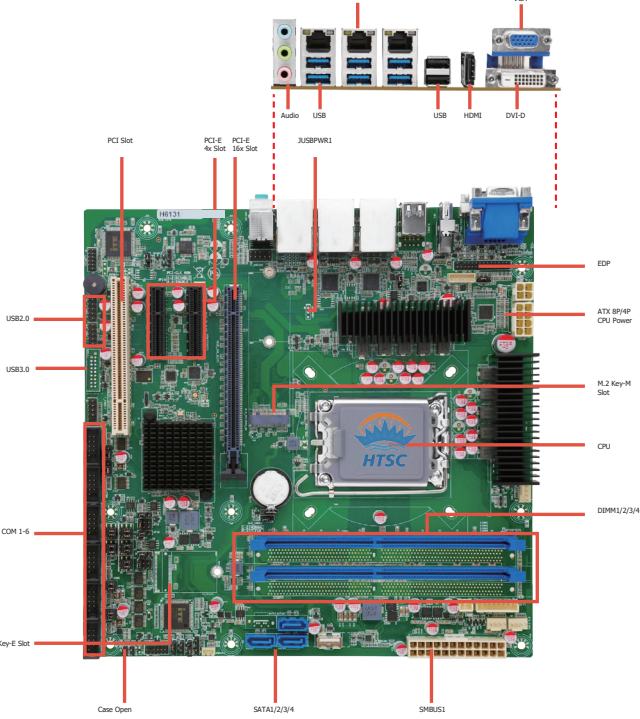
Product characteristics

- Support Intel 12/13 generation Core i3/i5/i7/i9 processors
- Use intel H610 chipset
- Support 4 X USB 3.0, 9 X USB 2.0, 6 X COM, 3 X gigabit ethernet ports
- Provide 1xPCIex16, 2xPCIex4, 1xPCI,
- Provide 1 X DP, 1 X DVI-D, 1 X VGA, 1 X edp, support four screen different display
- Support TPM 2.0, Case Open, WDT

Machinery and evironment:

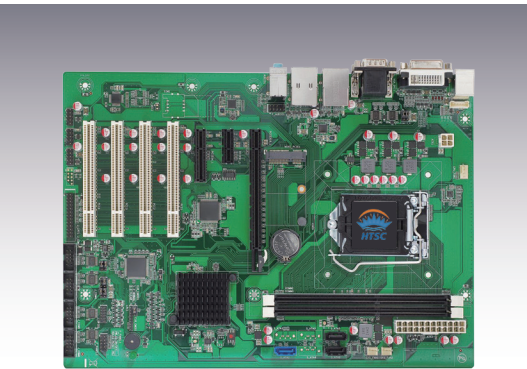
Size	244mm X 244mm
Power	ATX (24P + 8P + 4P)
Temperature	Operation: 0°C~60°C, Storage: -20°C~75°C
Relative humidity	Operation: 10%~90%, Storage: 5%~95%, non-condensing

Interface diagram:



MB-A810

4th Gen Intel® Core™ Processor ATX



specification

General:

CPU	Intel® 4th Generation Core /Pentium /Celeron CPU , LGA1150 , Support MAX CPU TDP 65W
CS	Intel® H81
Memory	2 X DDR3 1333/1600 MHz UDIMM , Up to 16GB
Hard disk	2 X SATA 2.0 , 1 X SATA 3.0 , 1 X mSATA
Expansion slot	1 X PCIe X16 (PCIe 16X, GEN2) 1 X PCIe X4 (PCIe 4X, GEN2) 1 X PCIe X1 (PCIe 1X, GEN2) 4 X PCI
BIOS	AMI UEFI BIOS
System	Windows 7/8/10 , Linux

I/O port:

Ethernet	2 X Intel GBE LAN (10/100/1000 Mbps, RJ45)
Serial port	2 X RS232 (COM1/2 , Rear IO) 3 X RS232 (COM4/5/6 , Header) 1 X RS232/RS485 (COM3 , Header)
USB	2 X USB3.0 (TYPE-A , Rear IO) 2 X USB2.0 (TYPE-A , Rear IO) 6 X USB2.0 (Header)
Audio	Realtek ALC662 5.1 Channel HDA Codec , Support MIC-IN/LINE-OUT
PS/2	2 X PS/2 (Keyboard & Mouse)
Parallel port	1 X LPT
GPIO	1 X 8-bit GPIO

Display:

Display interface	1 X VGA , up to 1920x1200@60Hz 1 X DVI , up to 1920x1200@60Hz
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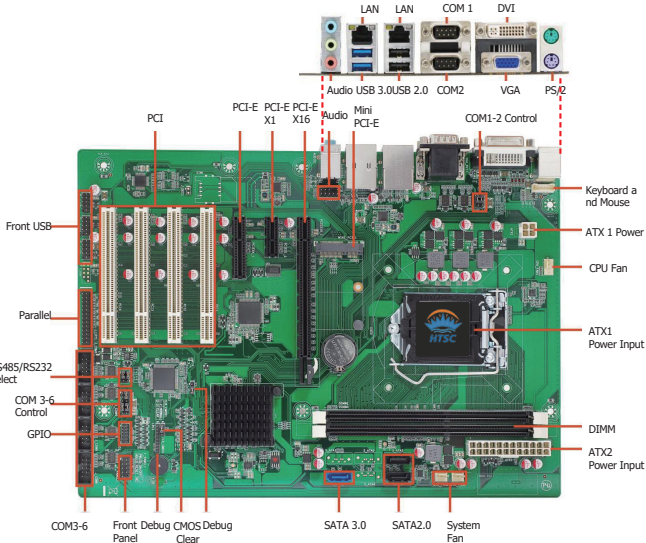
Product characteristics

- Support Intel 4th generation Core i3/i5/i7 processors
- use intel H81 chipset
- Support 6XCOM, 10XUSB, 2XGigabit LAN
- Provide 1XVGA,1XDVI, dual display support
- Provide 1XPCIeX 16, 1 XPCIe X 4, 1 XPCIe X 1, 4 XPCI, 1 X Mini-PCIe(mSATA Supported)

Machinery and evironment:

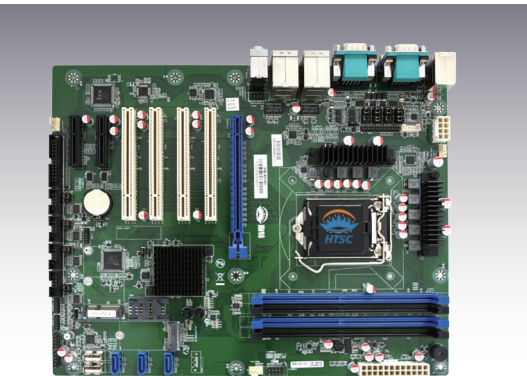
Size	305 X 220mm
Power	ATX (24P+4P)
Relative temperature	Operation: 0°C~60°C, Storage: -25°C~75°C
Relative humidity	Operation: 10%~90%, Storage: 5%~95%, non-condensing

Interface diagram:



MB-A310C

6th/7th/8th/9th Gen Intel® Core™ Processor ATX



specification

General:

CPU	Intel® 6/7/8/9th Generation Core /Pentium / Celeron CPU , LGA1151 , Support MAX CPU TDP 95W
CS	Intel® H310C
Memory	2 X DDR4 2133/2400/2666 MHz UDIMM , Up to 64GB
Hard disk	3 X SATA 3.0 , 1 X M.2 2242/2280 M key (SATA)
Expansion slot	1 X PCIe X16 (PCIe 16X, GEN2) 2 X PCIe X4 (PCIe 2X, GEN2) 4 X PCI 1 X Mini PCIe (USB2.0/4G)
BIOS	AMI UEFI BIOS
System	Windows 7/8/10 , Linux

I/O port:

Ethernet	2 X Intel GBE LAN (10/100/1000 Mbps, RJ45)
Serial port	4 X RS232 (COM2/5/6 , Header) 2 X RS232/RS422/RS485 (COM1/2 , Rear IO)
USB	4 X USB3.0 (TYPE-A , Rear IO) 2 X USB2.0 (TYPE-A , Rear IO) 2 X USB2.0 (TYPE-A) 4 X USB2.0 (Header)
Audio	Realtek Audio HD Audio Codec , Support MIC-IN/LINE-IN/LINE-OUT
PS/2	1 X PS/2 (Keyboard & Mouse)
Parallel port	1 X LPT
GPIO	2 X 8-bit GPIO

Display:

Display interface	1 X VGA , up to 1920x1200@60Hz 1 X HDMI , up to 3840 x 2160@30Hz 1 X EDP , up to 1920x1200@60Hz
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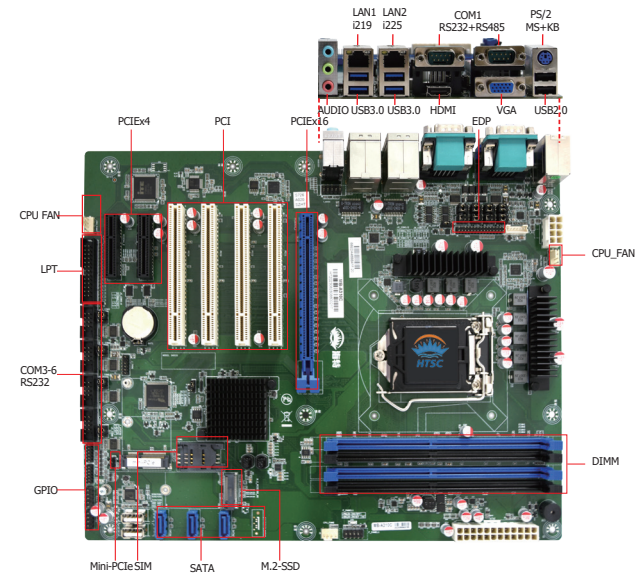
Product characteristics

- Support Intel 6/7/8/9 generation Core i3/i5/i7 processors
- Use intel H310C chipset
- Support 4 X USB3.0, 6 X USB2.0,2 X Intel GbEs,6 X COM
- Provide 1XVGA,1XEDP,1XHDMI,
- Provide 1XPCIeX 16, 1 XPCIe X 4,2XPCI, 1X Mini-PCIe

Machinery and evironment:

Size	305mm X 244mm
Power	ATX (24P+8P)
Operation temperature	-10°C~60°C; 5%~95% (non-condensing)
Storage environment	-20°C~80°C, 5%~95% (non-condensing)

Interface diagram:



cpu

pc

Industrial all-in-one

display

Industrial touch

Fanless IPC

IPC chassis

IPC chassis

IPC chassis

Main board

Main board

Server series

Server series

Network card

module

Network card

Switch

Switch

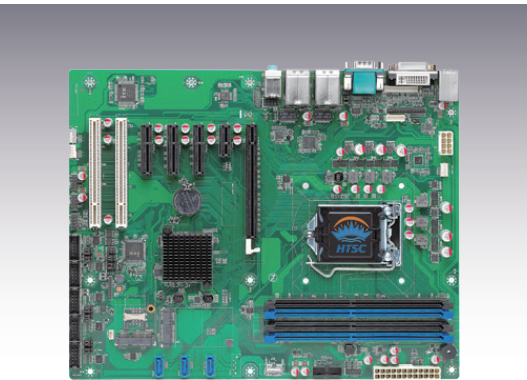
Display

Display



MB-A170-A

6th/7th Gen Intel® Core™ Processor ATX



specification

General:

CPU	Intel® 6/7th Generation Core /Pentium /Celeron CPU , LGA1151 , Support MAX CPU TDP 95W
CS	Intel® Q170
Memory	4 X DDR4 2133/2400 MHz UDIMM , Up to 64GB
Hard disk	3 X SATA 3.0 , RAID 0/1/5/10 , 1 X mSATA
Expansion slot	1 X PCIe X16 (PCIe 16X, GEN3) 3 X PCIe X4 (PCIe 4X, GEN3) 1 X PCIe X1 (PCIe 1X, GEN3) 2 X PCI, 1 X Mini PCIe (4G/3G)
BIOS	AMI UEFI BIOS
System	Windows 7/8/10 , Linux

I/O port:

Ethernet	2 X Intel GBE LAN (10/100/1000 Mbps, RJ45)
Serial port	1 X RS232 (COM1 , Rear IO) 3 X RS232 (COM2/5/6 , Header) 1 X RS232/RS422/RS485 (COM3 , Header) 1 X RS232/RS485 (COM4 , Header)
USB	4 X USB3.0 (TYPE-A , Rear IO) 2 X USB3.0 (Header) 2 X USB2.0 (TYPE-A , Rear IO) 1 X USB2.0 (TYPE-A) , 4 X USB2.0 (Header)
Audio	Realtek ALC662 5.1 Channel HDA Codec , Support MIC-IN/LINE-IN/LINE-OUT
PS/2	1 X PS/2 (Keyboard & Mouse)
GPIO	1 X 8-bit GPIO

Display:

Display interface	1 X VGA , up to 1920x1200@60Hz 1 X HDMI , to 4096x2160@24Hz 1 X DVI , up to 1920x1200@60Hz 1 X EDP , up to 1920x1200@60Hz
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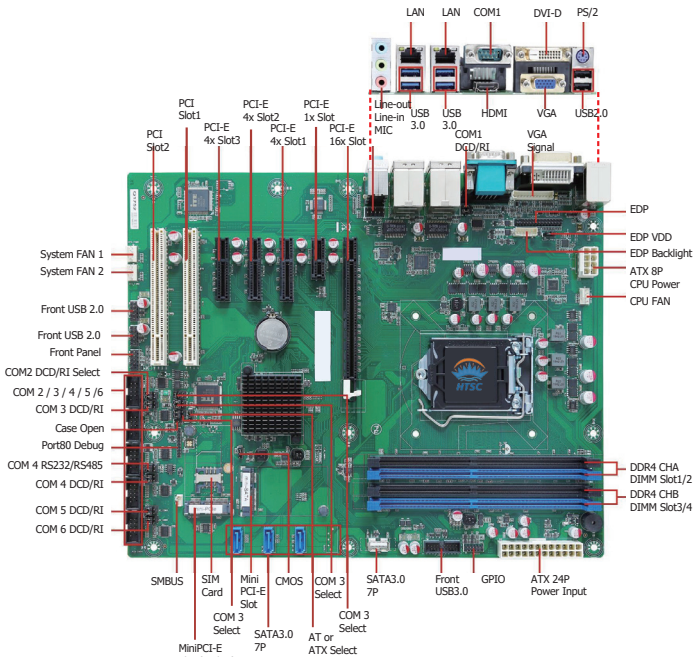
Product characteristics

- Support Intel 6/7 generation Corei3/i5/i7 processors
- Use Intel Q170 chipset
- Support 6XCOM, 13XUSB, 2Xintel gigabit ethernet port
- Provide 1XVGA, 1XHDMI,1XDVI,1XeDP, support three different display
- Support 1xPCIex16,3xPCIex4,1xPCIex1 2xPCI, 1 X Mini-PCIe For mSATA, wifi/3G/4G

Machinery and evironment:

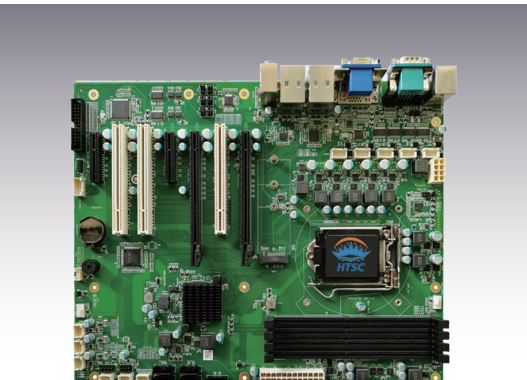
Size	305mm X 244mm
Power	ATX (24P+8P)
Temperature	Operation: 0°C~60°C, Storage: -25°C~75°C
	Operation: 10%~90%, Storage: 5%~95%, non-condensing
Humidity	

Interface diagram:



MB-A170-B

6th/7th Gen Intel® Core™ Processor ATX



specification

General:

CPU	Intel® 6/7th Generation Core /Pentium /Celeron CPU , LGA1151 , Support MAX CPU TDP 95W
CS	Intel® Q170
Memory	4 X DDR4 2133/2400 MHz DIMM , Up to 64GB
Hard disk	5 X SATA 3.0 , RAID 0/1/5/10 ,
Expansion slot	1 X M.2 2242/2260/2280 M key (SATA) 2 X PCIe X16 (PCIe 8X, GEN3) 2 X PCIe X4 (PCIe 4X, GEN3) 3 X PCI
BIOS	AMI UEFI BIOS
System	Windows 7/8/10 , Linux

I/O port:

Ethernet	2 X Intel GBE LAN (10/100/1000 Mbps, RJ45)
Serial port	1 X RS232/RS422/RS485 (COM1 , Rear IO) 1 X RS232/RS422/RS485 (COM2 , Header) 4 X RS232 (COM3/4/5/6 , Header)
USB	6 X USB3.0 (Header) 6 X USB2.0 (TYPE-A , Rear IO) 2 X USB2.0 (Header)
Audio	High Definition Audio Codec , Support MIC-IN/LINE-IN/LINE-OUT
PS/2	1 X PS/2 (Keyboard & Mouse)
Parallel port	1 X LPT
GPIO	1 X 8-bit GPIO

Display:

Display interface	1 X VGA , up to 1920x1200@60Hz 1 X HDMI , to 4096x2160@24Hz 1 X DVI , up to 1920x1200@60Hz
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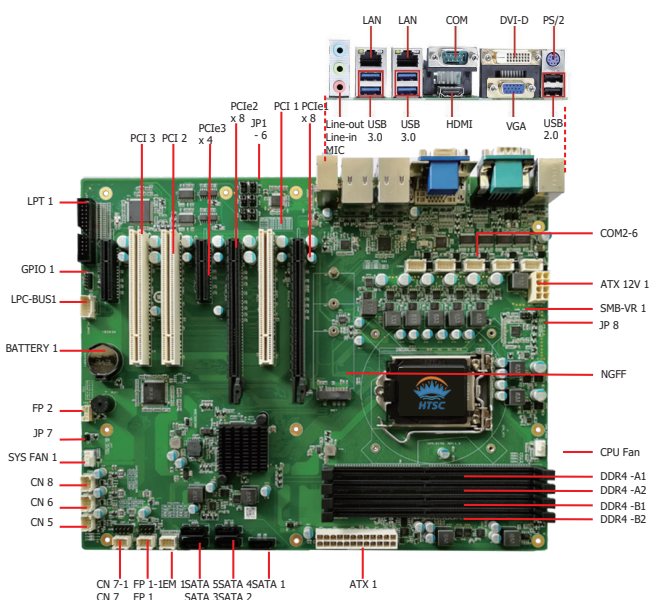
Product characteristics

- Support Intel 6/7 generation Core i3/i5/i7 processors
- Use Intel Q170/C236 chipset
- Support 6XCOM, 8XUSB2.0, 6XUSB3.0,2XIntel gigabit ethernet port
- Provide 1XVGA,1XHDMI, 1XDVI, support three different display
- Support 2xPCIex16,2xPCIex4,3xPCI

Machinery and evironment:

Size	305mm*244mm
Power	ATX (24P+8P)
Relative temperature	-10°C~60°C; 5%~95% (non-condensing)
Relative humidity	-20°C~80°C, 5%~95% (non-condensing)

Interface diagram:



c p u

pc

Industrial all-in-one

Industrial touch display

Fanless IPC

IPC chassis

Main board

Server series

Network card module

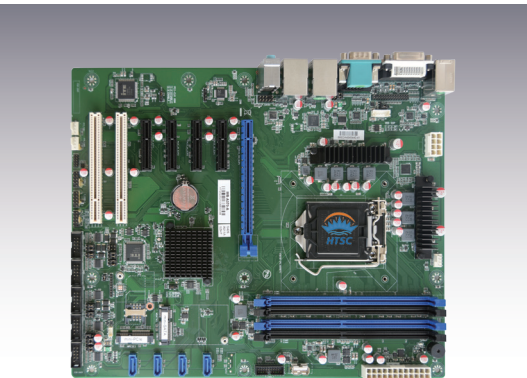
Switch

Display



MB-A370-A

8th/9th Gen Intel® Core™ Processor ATX



specification

General:

CPU	Intel® 8/9th Generation Core /Pentium /Celeron CPU , LGA1151 , Support MAX CPU TDP 95W
CS	Intel® Q370
Memory	4 X DDR4 2400/2666 MHz UDIMM , Up to 64GB
Hard disk	4 X SATA 3.0 , RAID 0/1/5/10 , 1 X mSATA
Expansion slot	1 X PCIe X16 (PCIe 16X, GEN3) 4 X PCIe X4 (PCIe 4X, GEN3) 2 X PCI, 1 X Mini PCIe (WIFI+4G)
BIOS	AMI UEFI BIOS
System	Windows 10 , Linux

I/O port:

Ethernet	2 X Intel GBE LAN (10/100/1000 Mbps, RJ45)
Serial port	1 X RS232 (COM1 , Rear IO) 3 X RS232 (COM2/5/6 , Header) 1 X RS232/RS422/RS485 (COM3 , Header) 1 X RS232/RS485 (COM4 , Header)
USB	4 X USB3.0 (TYPE-A, Rear IO) 2 X USB3.0 (Header) 2 X USB2.0 (TYPE-A, Rear IO) 1 X USB2.0 (TYPE-A), 4 X USB2.0 (Header)
Audio	Realtek ALC662 5.1 Channel HDA Codec , Support MIC-IN/LINE-IN/LINE-OUT
PS/2	1 X PS/2 (Keyboard & Mouse)
GPIO	1 X 8-bit GPIO

Display:

Display interface	1 X VGA , up to 1920x1200@60Hz 1 X HDMI , to 4096x2160@30Hz 1 X DVI , up to 1920x1200@60Hz 1 X EDP , up to 1920x1200@60Hz
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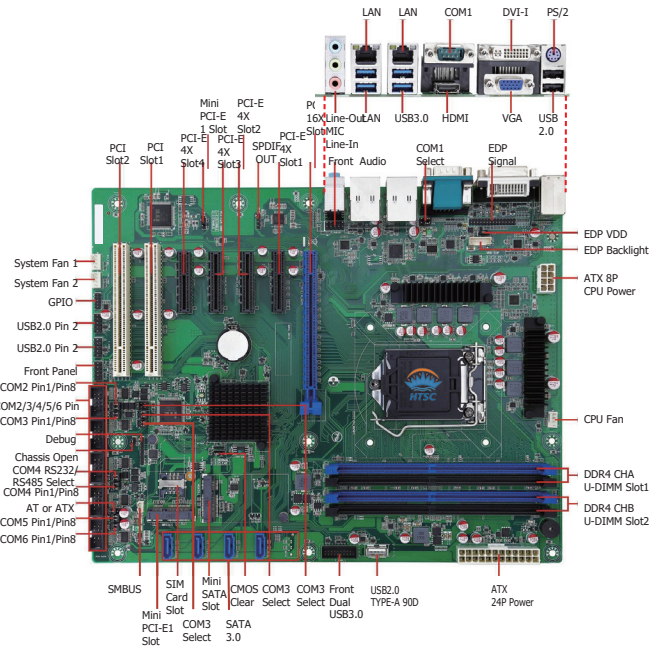
Product characteristics

- Support Intel Coffee Lake 8/9 generations Core i3/i5/i7 processors
- Use Intel Q370 chipset
- Support 6 X COM, 13 X USB, 2 X Intel gigabit network ports
- Provide 1 X VGA, 1 X HDMI, 1X DVI, 1X eDP, support different three screens display
- Provide 1 X PCIe x16, 3 X PCIe x4, 1X PCIe x1, 2 X PCI
- Support vPro, AMT, RAID, TPM 2.0

Machinery and evironment:

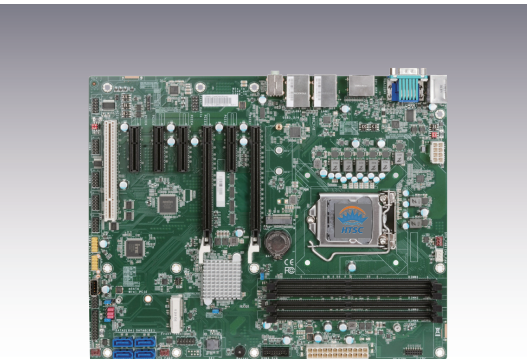
Size	305mm X 244mm
Power	ATX (24P+8P)
Relative temperature	Operation: 0°C~60°C, Storage: -25°C~75°C
Relative humidity	Operation: 10%~90%, Storage: 5%~95%, non-condensing

Interface diagram:



MB-A370-B

8th/9th Gen Intel® Core™ Processor ATX



specification

General:

CPU	Intel® 8/9th Generation Core /Pentium /Celeron CPU , LGA1151 , Support MAX CPU TDP 95W
CS	Intel® Q370
Memory	4 X DDR4 2400/2666 MHz UDIMM , Up to 128GB
Hard disk	4 X SATA 3.0 , RAID 0/1/5/10 , 1 X M.2 2242/2260/2280 M key (NVMe/SATA)
Expansion slot	2 X PCIe X16 (PCIe 1 x16X or 2 x8X, GEN3) 3 X PCIe X4 (PCIe 4X, GEN3) 1 X PCIe X1 (PCIe 1X, GEN3) 1 X PCI 1 X Mini PCIe (PCIe/SATA/USB2.0)
BIOS	AMI SPI 128Mbit
System	Windows 10 , Linux

I/O port:

Ethernet	2 X Intel GBE LAN (10/100/1000 Mbps, RJ45)
Serial port	1 X RS232/RS422/RS485 (COM1 , Rear IO) 1 X RS232/RS422/RS485 (COM2 , Header) 4 X RS232 (COM3/4/5/6 , Header) 2 X USB3.1 Gen 2 (TYPE-A, Rear IO)
USB	2 X USB3.1 Gen 1 (TYPE-A, Rear IO) 2 X USB3.1 Gen 1 (Header) 2 X USB2.0 (TYPE-A, Rear IO) 4 X USB2.0 (Header)
Audio	Realtek ALC888 7.1+2 Channel HDA Codec , Support MIC-IN/LINE-OUT
PS/2	1 X PS/2 (Keyboard & Mouse)
GPIO	1 X 8-bit DIO

Display:

Display interface	1 X VGA , up to 1920x1200@60Hz 2 X DP , up to 4096x2160@60Hz
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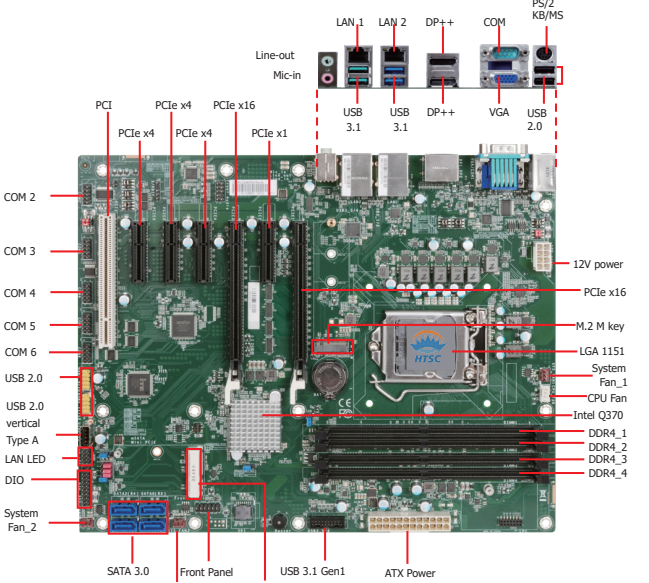
Product characteristics

- Supports Intel 8th and 9th generation CoreTM i3/i5/i7 processors
- Use Intel Q370 chipset
- Support 6 X COM , 6 X USB 3.1 (Gen2\*2, Gen1\*4) , 6X USB2 2.0
- Provide 1 X VGA, 2 X DP++, support three screens display
- Provide 2 X PCIe x16, 3 X PCIe x4, 1X PCIe x1, 1 X PCI
- Support vPro, AMT, RAID, TPM 2.0

Machinery and evironment:

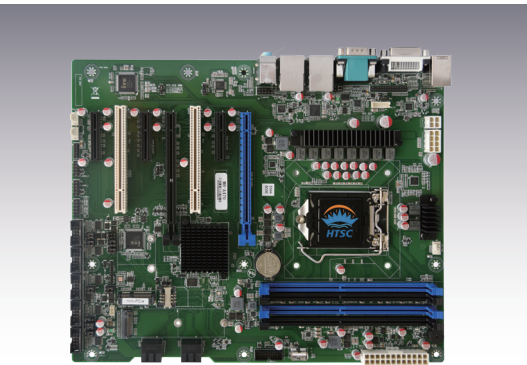
Size	305mm X 244mm
Power	ATX (24P+8P)
Temperature	Operating: -5 to 65°C, Storage: -30 to 60°C with RTC Battery; -40 to 85°C without RTC Battery
Humidity	Operating: 5 to 95% RH Storage: 5 to 95% RH

Interface diagram:



MB-A470

10th Gen Intel® Core™ Processor ATX



specification

General:	
CPU	Intel® 10/11th Generation Core /Pentium /Celeron CPU , LGA1200 , Support MAX CPU TDP 125W
CS	Intel® Q470
Memory	4 X DDR4 2400/2666/2933 MHz UDIMM , Up to 128GB
Hard disk	4 X SATA 3.0 , RAID 0/1/5/10 , 1 X M.2 2242/2280 M key (NVMe/SATA)
Expansion slot	2 X PCIe X16 (PCIe 1 x16X or 2 x8X, GEN3) 3 X PCIe X4 (PCIe 4X, GEN3) 2 X PCI , 1 X Mini PCIe (WIFI+4G/3G)
BIOS	AMI UEFI BIOS
System	Windows 10 , Linux

I/O port:

Ethernet	2 X Intel GBE LAN (10/100/1000 Mbps, RJ45)
Serial port	1 X RS232 (COM1 , Rear IO)
	3 X RS232 (COM2/5/6 , Header)
	1 X RS232/RS422/RS485 (COM3 , Header)
	1 X RS232/RS485 (COM4 , Header)
USB	4 X USB3.0 (TYPE-A , Rear IO)
	2 X USB3.0 (Header) , 2 X USB2.0 (TYPE-A , Rear IO)
	1 X USB2.0 (TYPE-A) , 4 X USB2.0 (Header)
Audio	Realtek HDA Codec , Support MIC-IN/LINE-IN/LINE-OUT
PS/2	1 X PS/2 (Keyboard & Mouse)
GPIO	1 X 8-bit GPIO

Display:

Display interface	1 X VGA , up to 1920x1200@60Hz
	1 X HDMI , to 4096x2160@30Hz
	1 X DVI , up to 1920x1200@60Hz
	1 X EDP , up to 4096x2304@60Hz

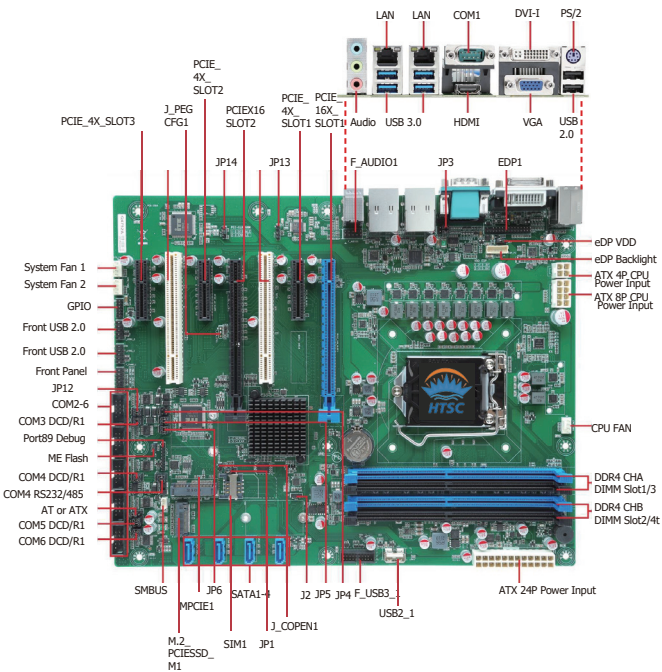
Product characteristics

- Support Intel 10/11 generation Core i3/i5/i7/i9 processors
- use intel Q470 chipset
- Support 6 X COM, 6 X USB3.0, 7 X USB2.0, 2X gigabit LAN
- Provide 1XVGA,1 X HDMI,1 X DVI,1 X eDP, support three different display
- Support 2 X PCIe X 16, 3XPCIeX4, 2XPCI
- Support vPro, AMT, RAID, TPM 2.0, Case Open

Machinery and evironment:

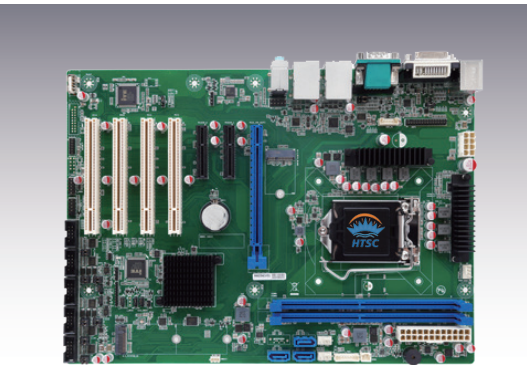
Size	305 X 244mm
Power	ATX (24P+8P+4P)
Temperature	Operation: 0°C~60°C, Storage: -25°C~75°C
Humidity	Operation: 10%~90%, Storage: 5%~95%,
	non-condensing

Interface diagram:



MB-AH470

10th Intel® Core Processor ATX



specification

General:	
CPU	Intel® 10th Generation Core /Pentium /Celeron CPU , LGA1200 , Support MAX CPU TDP 65W
CS	Intel® H470
Memory	2 X DDR4 2133/2400/2666/2933 MHz UDIMM , Up to 64GB
Hard disk	3 X SATA 3.0 , 1 X M.2 2242/2280 M key (SATA)
Expansion slot	1 X PCIe X16 (PCIe 16X, GEN3) 1 X PCIe X4 (PCIe 2X, GEN3) 1 X PCIe X4 (PCIe 4X, GEN3) , 4 X PCI 1 X M.2 2230 E key (PCIe/USB2.0/WIFI+BlueTooth)
BIOS	AMI UEFI BIOS
System	Windows 10 , Linux

I/Oport:

Ethernet	2 X Intel GBE LAN (10/100/1000 Mbps, RJ45)
Serial port	1 X RS232 (COM1 , Rear IO)
	3 X RS232 (COM2/5/6 , Header)
USB	2 X RS232/RS485 (COM3/4 , Header)
	6 X USB3.0 (TYPE-A , Rear IO) , 2 X USB3.0 (Header)
Audio	1 X USB2.0 (TYPE-A) , 4 X USB2.0 (Header)
Audio	Realtek Audio HDA Codec , Support MIC-IN/LINE-IN/LINE-OUT
PS/2	1 X PS/2 (Keyboard & Mouse)
GPIO	1 X 8-bit GPIO

Display:

Display interface	1 X VGA , up to 1920x1200@60Hz
	1 X HDMI , to 4096x2160@30Hz
	1 X DVI , up to 1920x1200@60Hz
	1 X EDP , up to 4096x2304@60Hz

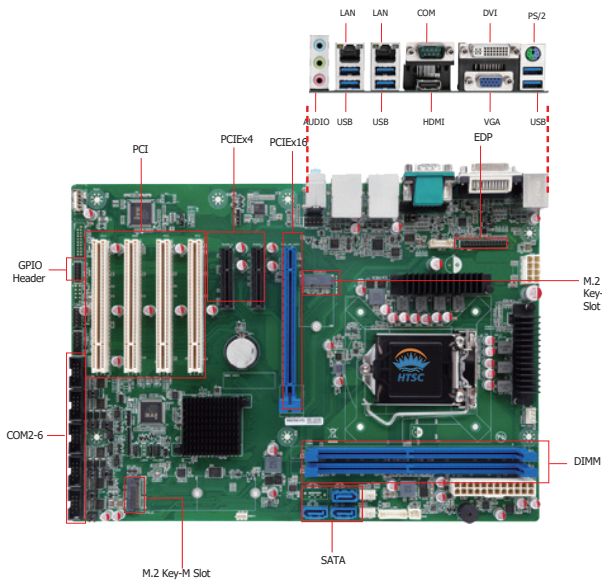
Product characteristics

- Support Intel 10 generation Core i3/i5/i7/i9 processors
- Use intel H470/H420 chipset
- Support 6 X COM, 6XUSB3.0, 8XUSB2.0,2Xgigabit LAN
- Support 1xPCIex16, 2xPCIex4, 4xPCI, 2xM.2
- Provide 1XVGA,1XHDMI, 1XDVI, 1XeDP, support dual screen different display

Machinery and evironment:

Size	305mm X 220mm
Power	ATX (24P+8P)
Temperature	Operating: 0 to 60°C Storage: -20 to 80°C
Humidity	5% to 95% RH (non-condensing)

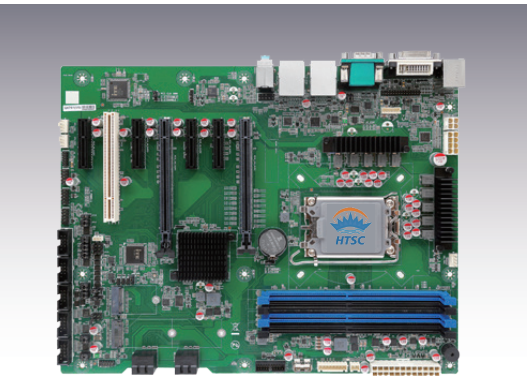
Interface diagram:





MB-A670

12th/13th Intel® Core Processor ATX



specification

General	
CPU	Intel® 12/13/14th Generation Core /Pentium / Celeron CPU , LGA1700 , Support MAX CPU TDP 125W
CS	Intel® Q670
Memory	4 X DDR4 3200 MHz UDIMM , Up to 128GB
Hard disk	4 X SATA 3.0 , RAID 0/1/5/10 , 1 X M.2 2242/2280 M key (NVMe/SATA)
Expansion slot	2 X PCIe X16 (PCIe 1 x16X or 2 x8X, GEN4) 3 X PCIe X4 (PCIe 4X, GEN4) 1 X PCIe X4 (PCIe 4X, GEN3)。 1 X M.2 2230 E key (PCIe/USB2.0/CNVi/WIFI/BlueTooth)
BIOS	AMI UEFI BIOS
System	Windows 10/11 , Linux

I/Oport:

Ethernet	2 X Intel GBE LAN (10/100/1000 Mbps, RJ45)
Serial port	1 X RS232 (COM1 , Rear IO)
	3 X RS232 (COM2/5/6 , Header)
	1 X RS232/RS422/RS485 (COM3 , Header)
	1 X RS232/RS485 (COM4 , Header)
USB	6 X USB3.0 (TYPE-A , Rear IO) , 2 X USB3.0 (Header)
	1 X USB2.0 (TYPE-A) , 4 X USB2.0 (Header)
Audio	Realtek Audio HDA Codec ,
PS/2	Support MIC-IN/LINE-IN/LINE-OUT
Parallel port	1 X PS/2 (Keyboard & Mouse)
GPIO	1 X 8-bit GPIO

Display:

Display interface	1 X VGA , up to 1920x1200@60Hz 1 X HDMI , to 4096x2160@30Hz 1 X DVI , up to 1920x1200@60Hz 1 X EDP , up to 4096x2304@60Hz
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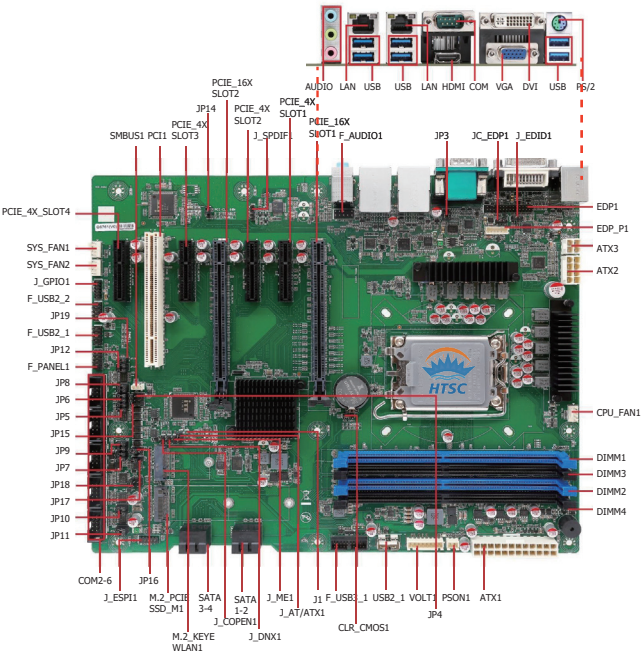
Product characteristics

- Support Intel 12/13 generations Core i3/i5/i7/i9 processors
- Use Intel Q670 chipset
- Support 2 X Intel gigabit network ports, 8 X USB3.0, 5X USB2.0, 6 X COM
- Provide 1 X VGA, 1 X HDMI, 1X DVI, 1X eDP
- Support 2 X PCIe x16, 4 X PCIe x4, 1 X PCI
- Support vPro, AMT, RAID, TPM 2.0, Case Open

Machinery and evironment:

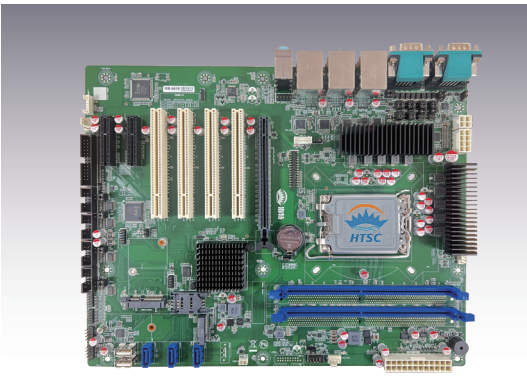
Size	305mm X 244mm
Power	ATX (24P+8P+4P)
Temperature	Operation: 0°C~60°C, Storage: -25°C~75°C
Humidity	Operation: 10%~90%, Storage: 5%~95%,
	non-condensing

Interface diagram:



MB-A610

12th/13th/14th Intel® Core Processor ATX



specification

General	
CPU	Intel® 12/13/14th Generation Core /Pentium / Celeron CPU , LGA1700 , Support MAX CPU TDP 125W
CS	Intel® H610
Memory	2 X DDR4 3200 MHz UDIMM , Up to 64GB
Hard disk	3 X SATA 3.0 , 1 X M.2 2242/2280 M key (SATA)
Expansion slot	1 X PCIe X16 (PCIe 16X, GEN3) 2 X PCIe X4 (PCIe 2X, GEN3) 4 X PCI 1 X Mini PCIe (WIFI/4G)
BIOS	AMI UEFI BIOS
System	Windows 10/11 , Linux

I/Oport:

Ethernet	3 X Intel GBE LAN (10/100/1000 Mbps, RJ45)
Serial port	4 X RS232 (COM2/5/6 , Header)
	2 X RS232/RS422/RS485 (COM1/2 , Rear IO)
USB	6 X USB3.0 (TYPE-A , Rear IO)
	2 X USB2.0 (TYPE-A) 4 X USB2.0 (Header)
Audio	Realtek Audio HDA Codec ,
PS/2	Support MIC-IN/LINE-IN/LINE-OUT
Parallel port	1 X LPT
GPIO	2 X 8-bit GPIO

Display:

Display interface	1 X VGA , up to 1920x1200@60Hz 1 X HDMI , to 4096x2160@30Hz 1 X EDP , up to 4096x2304@60Hz
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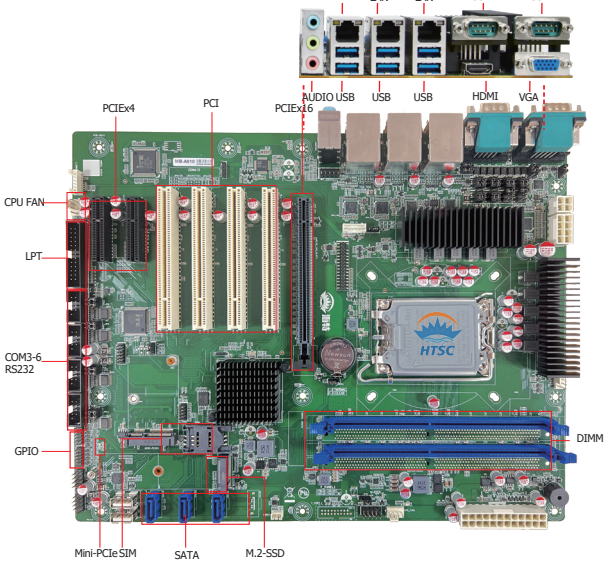
Product characteristics

- Support Intel 12 generation/13 generation/14 generation Core i3/i5/i7/i9 processors
- Use Intel H610 chipset
- Support 3X Intel gigabit network ports, 12 X USB, 6 X COM
- Provide 1 X VGA, 1 X HDMI, 1X eDP
- Support 1 X PCIe x16, 2 X PCIe x4, 4 X PCI

Machinery and evironment:

Size	305mm X 244mm
Power	ATX Power
Temperature	Operating: 0 to 60°C Storage: -20 to 80°C
Humidity	5% to 95% RH (non-condensing)

Interface diagram:





SPC-6515
4U server chassis



specification

General:

Table with 2 columns: Specification Item, Value. Rows include Hard Disk position, fan position, main board, I/Oexpansion, external port, system control, and areasofapplication.

Environment:

Table with 2 columns: Specification Item, Value. Rows include cabinet size, main materials, and surface treatment.

Power:

Table with 2 columns: Specification Item, Value. Row includes Suitable power.

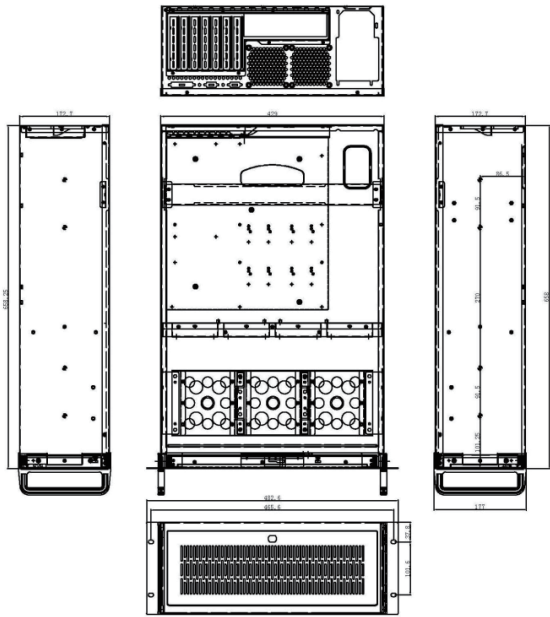
Product characteristics

- The chassis can accommodate 15 3.5-inch mechanical hard disks,
- The hard disk bracket adopts shock absorption design.
- The chassis supports 12"x13" server main board,
- Support standard ATX power supply,
- 2\*12cm fan bits and 7\*8cm fan bits with good cooling ducts

Machinery and evironment:

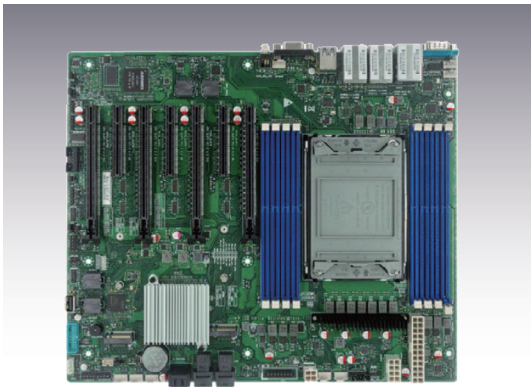
Table with 2 columns: Specification Item, Value. Rows include Size, Operation temperature, Storage evironment, Operating humidity, and Non-working humidity.

Dimension:



SMB-A13SRA

Intel WHITLEY single way high performance server motherboard



specification

General:

Table with 2 columns: Specification Item, Value. Rows include CPU, CS, Memory, Hard disk, Expansion slot, and Managem ent chip.

I/O port:

Table with 2 columns: Specification Item, Value. Rows include Ethernet, Serial port, USB, and Other.

Display:

Table with 2 columns: Specification Item, Value. Row includes Display interface.

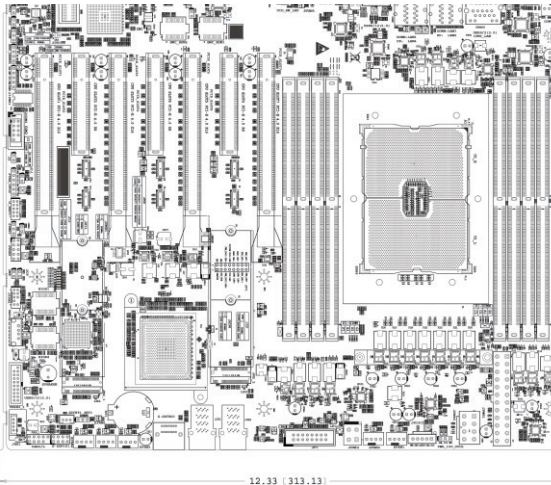
Product characteristics

- Support Intel ® Xeon ® 3rd Generation Scalable family processors and W-3300 family processors
- Support 8 DDR4 RDIMM memory slots;DDR4 ECC RDIMM
- Support 4xPCIE4.0x16 and 3xPCIE4.0x8 expansion slots
- Support 2 M.2PCI-E3.0x4/SATA3.0(2242/2280)
- Intel VROC NVME raid KEY
- Support 10 SATA3(6Gb/s) interface, support RAID 0,1,5,10
- Support 4 2.5GbE ports and 1 gigabit RJ45IPMI special management network port
- Support IPMI2.0, SOL, KVM Over IP, virtual media, device health monitoring and other management features;

Machinery and evironment:

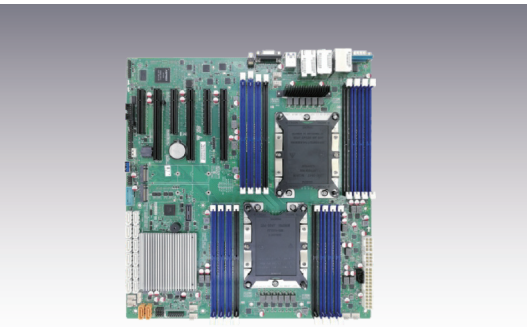
Table with 2 columns: Specification Item, Value. Rows include Size, Operation temperature, Storage evironment, Operating humidity, and Non-working humidity.

Interface diagram:



SMB-AP10DRE

Intel Purley dual high performance server main board



specification

General:

CPU	2 x Socket P (LGA 3647), Intel®Xeon®the1/2generationofscalablecpu Purley:(Sky lake/Cascade Lake ), TDP 205W , UPI (10.4 GT/s)
CS	Intel®C621
Memory	Sixteen memoryslot ,support DDR4RECCmemory, Maximumsu pportfrequency 2933MHz,Supports amaximumcapacityof4TB,
Storage	Supports a maximum capacity of 2TBopus persistent memory Intel® Optane™ PMem 100 Series (Apache Pass) (Cascade Lake only); (6passage /CPU,8-DIMMslot/CPU)
Hard disk	14 SATA3 (6 Gbps) ports; RAID 0, 1, 5, 10 14个7PIN SATA
Expansion slot Managem ent chip	Three standard PCIe 3.0 x16 three standardPCIe 3.0 x8 2个M.2 PCI-E 3.0 X4(2242/2280) ASPEED AST2500 BMC

I/O port:

Ethernet	2个1GbE RJ45 network port (Intel I210) 2个2.5GbE RJ45 network port (Intel I225) One 1GbERJ45IPMIprivate network port
Serial port	2个COMPorts (onepostposition inserting pin, one inserting pin)
USB	USB 2.0(two postposition、two inserting pin) USB 3.0(two postposition、two insertingpin、one built-in TypeA)
Other	1个VROCport, 1个TPMinsertingpin 8个4PINPWMfanport

Display:

Display interface	1 X VGA
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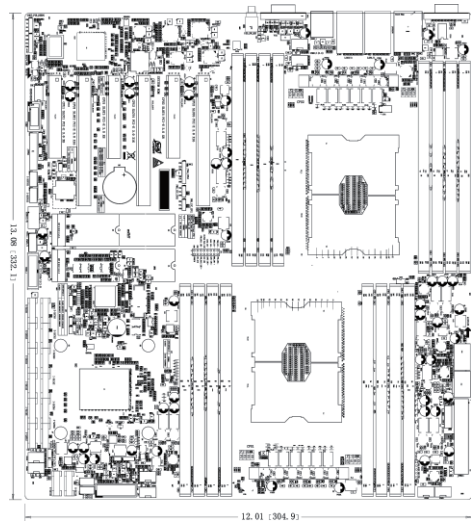
Product characteristics

- Based on Intel® High Performance Server C621 chipset
- Support 2 Intel® Xeon® Gen 1/2 extensible systems
- provid 16DDR4 RDIMM memory slots
- The maximum support capacity is 2TB Intel Autum persistent memory
- Three PCI E 3.0x16 and three PCI E 3.0 are supported
- Support 2 M.2 PCI-E 3.0x4 (2242/228x8 expansion slots)
- Support Intel VROC NVME raid KEY 0)
- DOM electronic hard disk with 2 SATA interfaces
- Support 2 gigabit ports (Intel i210)and 2.5GbE ports (Intel i225)\*2
- 1 Gigabit RJ45 IPMI dedicated management network port GbE port (Intel i225)

Machinery and evironment:

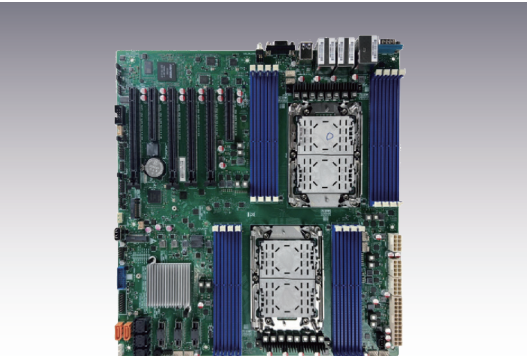
Size	304.9mm x 332.1mm
Operation temperature	10°C to 35°C
Storage environment	-40°C to 70°C
Operating humidity	8% to 90% (non-condensing)
Non-working humidity	5% to 95% (non-condensing)

Interface diagram:



SMB-MP13DRE

Intel WHITLEY dual high performance server main board



specification

General:

CPU	TwoSocketP+(LGA4189), supportIntel®Xeon®thirdgeneration scalable series processors
CS	Intel® C621A
Memory	Sixteen memoryslot (8 passage /CPU) Support3200/2933/2666MHzECCDDR4 RDIMMMaximum support4TB3DSRDIMM Supports a maximum capacity of 4TB Opus persistent memory Intel® Optane™ PMem 200 Series(Barlow Pass)
Hard disk	2个SATA3port 3个MINI SAS HDport Support RAID 0,1,5,10
Expansion slot	Four standard PCIe 4.0x16(x16 slot) two standard PCIe 4.0 x8(x8 slot) 3个 MCIOport(PCIe 4.0 x8 )
Managem ent chip	ASPEED AST2500 BMC

I/O port:

Ethernet	2 x gigabit network port, 2 x 2.5GbE network port 1xIPMI management port
Serial port	1 x COM port, 1xpreposition COMport inserting pin
USB	4 x USB 3.0 port 1x USB2.0 Type A 1x USB3.0 built-in inserting pin, Supports a maximum of two devices 1x USB2.0 built-in inserting pin, Supports a maximum of two devices
Other	1xUID switch (with LED light) 1xVROC inserting pin 8x4pin fan port 1xTPM inserting pin 1 x Chassis opening detection port 1xpreposition VGA port inserting pin

Display:

Display interface	1 X VGA
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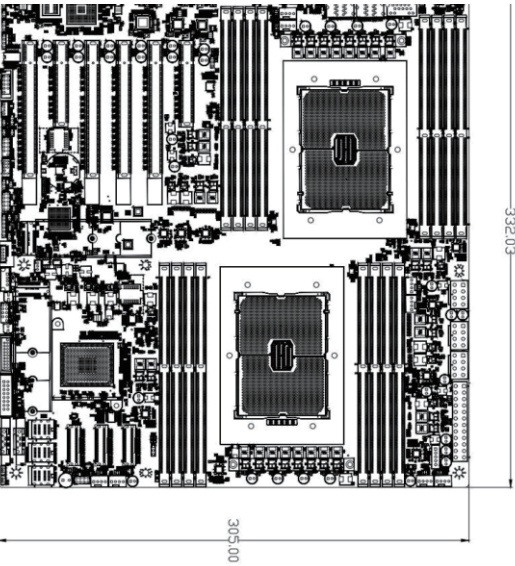
Product characteristics

- Based on Intel® High Performance Server C621A chipset
- provid 16DDR4 RDIMM memory slots
- Support 3 MCIO x8 interfaces, 2 M.2 PCIe-4.0x4 (2242/2280)
- support intel VROC NVME raid KEY
- Support 2 SATA3 interfaces, 3 MINI SAS HD interfaces,  
and supports RAID 0,1,5,10
- Support 2 Gigabit ports (Intel I210), 2 2.5GbE ports (Intel I225)
- 1 Gigabit RJ45 IPMI dedicated management network port.
- Support IPMI2.0, SOL, KVM Over IP、virtual media、  
and device health monitoring;

Machinery and evironment:

Size	332.03mm x 305mm
Operation temperature	10°C to 35°C
Storage environment	-40°C to 70°C
Operating humidity	8% to 90% (non-condensing)
Non-working humidity	5% to 95% (non-condensing)

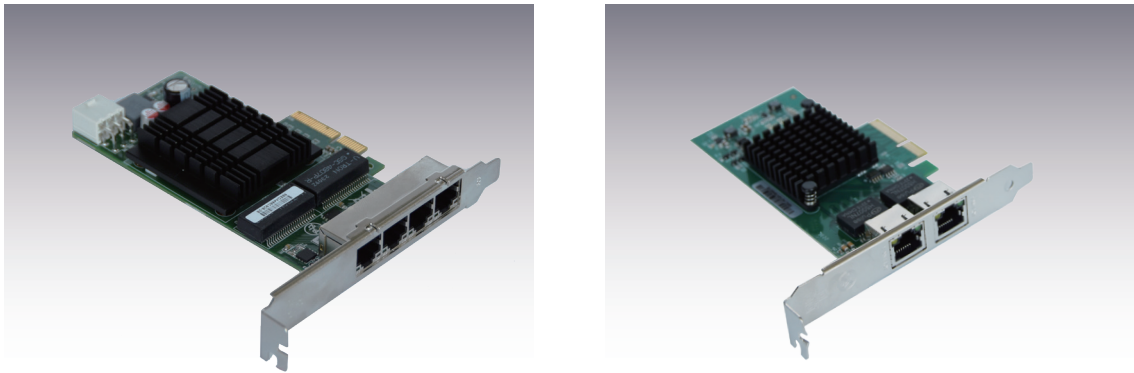
Interface diagram:





HT-I350

Vision private network card

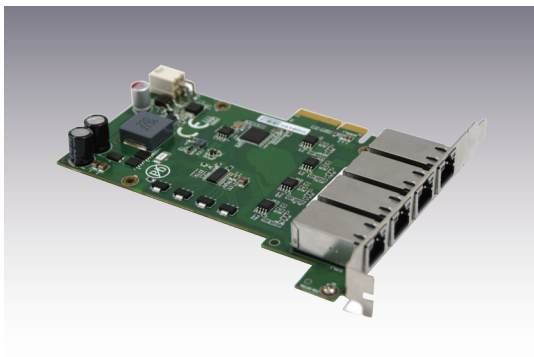


specification

型号		HT-I350-T2	HT-I350-T4	HT-POE-I350-T2	HT-POE-I350-T4
Expansion slot	Expansion slot	PCI-E 2x Golden Finger	PCI-E 4x Golden Finger	PCI-E 2x Golden Finger	PCI-E 4x Golden Finger
Ethernet	Num	2 X Intel®GBE LAN Chip (RJ45, 10/100/1000 Mbps)	4 X Intel®GBE LAN Chip (RJ45, 10/100/1000 Mbps)	2 X Intel®GBE LAN Chip (RJ45, 10/100/1000 Mbps)	4 X Intel®GBE LAN Chip (RJ45, 10/100/1000 Mbps)
	POE	—	—	Support 48V POE, max 4*15W	Support 48V POE, max 4*15W
Temperature	Temperature	Storage: -20~75°C Operating: 0~60°C			
Power	Power	DC 12V			
		DC 12V POE Power Input ATX 6P Connector (Just for POE)			

HT-I210

Vision private network card

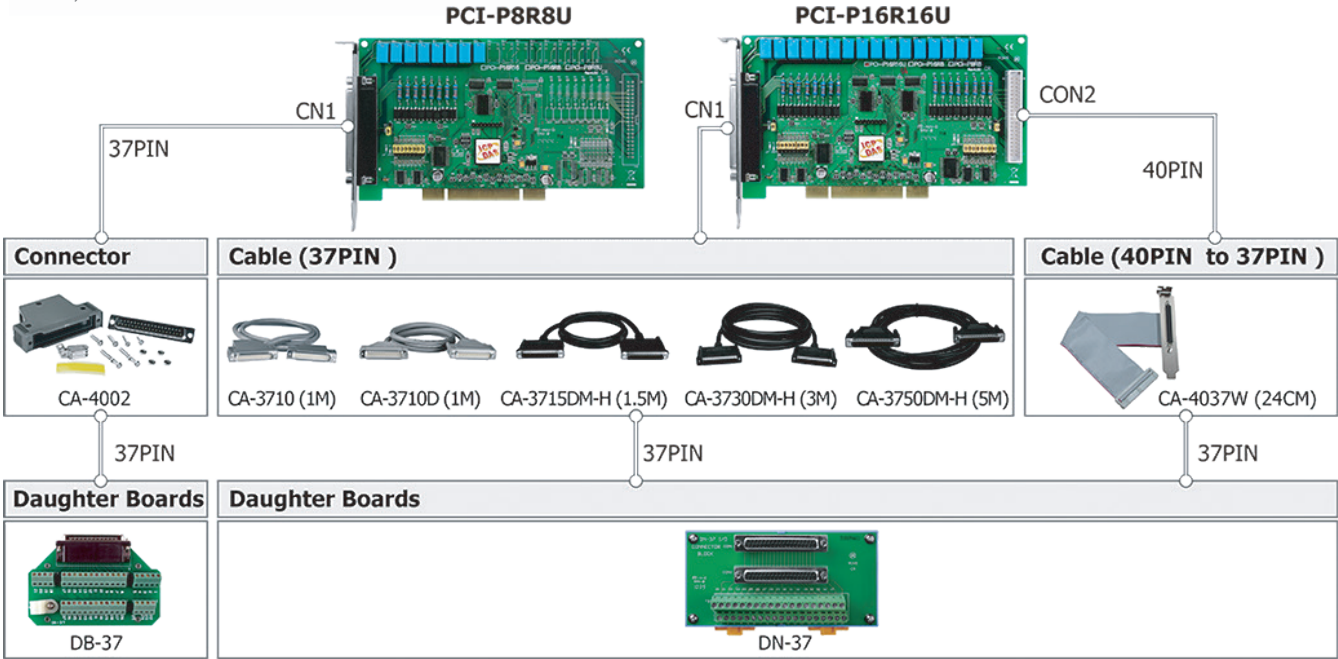


specification

型号		POE-i210-T4
Expansion slot	Expansion slot	PCI-E 4x Golden Finger
Ethernet	Num	4 X Intel®GBE LAN Chip (RJ45, 10/100/1000 Mbps)
	POE	Support 48V POE, max 4*15W
Temperature	Temperature	Storage: -20~75°C Operating: 0~60°C
Power	Power	DC12V ATX 4P Power Input Connector

PCI-P8R8U

8/16Channel isolation digital input and 8/16 Channel relay



specification

Isolation voltage	5000 Vrms (Photo-couple)	
Input voltage	logic1:AC/DC 5~24V (AC50~1kHz)	Logic 0:AC/DC 0~1V
Respon sespeed	filterless: 50KHz (typical)	With filter: 0.455KHz (tytpical)
Passage	8	
Relay	4 SPDT, 4 SPST	
typeContact rating system	AC: 120V@0.5A	DC: 24V@10A
Operating time	5ms (typical)	
Release time	10ms (typical)	
Insulation resistance	1000MΩ@500VDC	
Life	machine: 5,000,000 times operations	Eletric:100,000
Generatrix	5Vpci, 32bit, 33mhz	
Data bus	16位	
Card ID	No	
I/O coupler	Female DB37 x1	
Size	183mmX105mmX22mm	
Powerdissipation	500Ma@+5V	
Temperature	Operating temperature: 0~60°C	Storage temperature-20~70°C
Humidity	5~85%RH, non-condensing	

Product characteristics

- Universal PCI interface, support +3.3 V and+5 V PCI bus slot
- 8/16 Relay output channel
- 8/16 Optical isolation (5000 Vrms) input channel
- The input DC signal can be filtered
- The input AC signal has built-in filtering function
- Support Card ID (SMD switch)



M-7018

16-bit 10Hz channel thermocouple input module



specification

specification:

Input channel	8
Voltage range	±15 mV, ±50 mV, ±100 mV, ±500 mV, ±1 V, ±2.5 V
Range of current	±20 mA (external 125Ω resistor)
Type of thermocouple	J, K, T, E, R, S, B, N, C
resolution	16
Rate of sampling	10 /S
accuracy	±0.1%
bandwidth	15.7 Hz
Zero point elegant	0.5 μV/°C
Full scale drift	25 ppm/°C
Common mode rejection ratio	150 dB min
differential mode rejection ratio	100 dB
Input impedance	20 MΩ
Over voltage protection	±35 V
Short line detection	no
Isolation protection	3000 VDC

Power:

Supply voltage	+10 ~ +30 VDC
Power consumption	1.0 W

Environmental specifications:

Operating Temperature	-25 ~ 75 °C
Storage Temperature	-40 ~ 85 °C
Ambient Relative Humidity	5 ~ 90%, (non-condensing)

M-7055D

8-way isolated digital input  
8-way isolated open-collector output module



specification

specification:

Input channel	8
Input type	Optically isolated common source
Dry contact input	Logic 0: Port to GND Logic 1: Open port
Level input	Logic 0: 4 V max
Interface diagram	Logic 1: 10 ~ 50 V
Input impedance	10 kΩ 0.5W
Isolation protection	3750 VDC
Count channels	8
Maximum count value	16-bit (65535)
Input frequency	100Hz
Minimum pulse width	5ms
Output channel	8
Output type	Open source (N-MOSFET)
Load of output	650mA/10 ~ 40V max Output short circuit protection
Isolation protection	3750 Vrms

Power:

Supply voltage	10 ~ 30 VDC
Power consumption	2.2 W

Environmental specifications:

Operating Temperature	-25 ~ 75 °C
Storage Temperature	-40 ~ 85 °C
Ambient Relative Humidity	5 ~ 90%, (non-condensing)

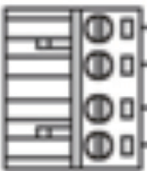
Unmanaged rail industrial Ethernet switchSC100M series



specification

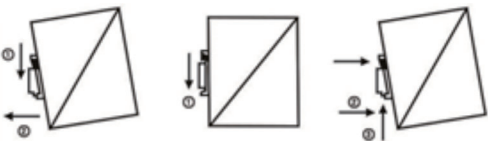
Product characteristics		SC-2005	SC-2008	SC-2016
Exchange characteristic	MAC Table	2K		8K
	Switch Capacity	1Gbps	1.6Gbps	3.2Gbps
	Packet Forwarding Rate	0.744Mpps	1.1904Mpps	2.38Mpps
	Switching Delay	<5us		
Communication port	Electrical Ports	5 10/100Base-Tx (RJ45)	8 10/100Base-T (RJ45)	16 10/100Base-Tx (RJ45)
Front panel indicator	Power LED	PWR		
	Interface LED	RJ45 (Link&ACT)		
Power	Power Terminal	4-pin 5.08mm-spacing plug-in terminal block		5-pin 3.81mm-spacing plug-in terminal block
	Full load power consumption	<2W		<4W
	Overload Protection	Support		
	Reverse Connection Protection	Support Redundancy		
	Protection	Support		
Physical characteristics	Housing	Metal, fanless		
	Protection Class	IP40		
	Dimensions	110mm x 87mm x 36mm(W×D×H)	140mm x 90mm x 40mm(W×D×H)	44.5mm x 158mm x 100mm (W×H×D)
	Weight	0.45kg	0.52kg	0.75kg
	Mounting	DIN-Rail		DIN-Rail or Panel mounting
Industrial standard	EMI:	FCC CFR47 Part 15, EN55022/CISPR22, Class B		FCC CFR47 Part 15, EN55022/CISPR22, Class A
	EMS:	IEC61000-4-2 (ESD): ±8kV (contact), ±15kV (air) IEC61000-4-3 (RS): 10V/m (80MHz-2GHz) IEC61000-4-4 (EFT): Power Port: ±4kV; Data Port: ±2kV IEC61000-4-5 (Surge): Power Port: ±2kV/DM, ±4kV/CM; Data Port: ±2kV IEC61000-4-6 (CS): 3V (10kHz-150kHz); 10V (150kHz-80MHz) IEC61000-4-16 (Common mode conduction): 30V (cont.), 300V (1s)		
Mechanical standard	Machinery	IEC60068-2-6 (Vibration), IEC60068-2-27 (Shock), IEC60068-2-32 (Free Fall)		
Environmental condition	Operating Temperature	-40 to 85°C		
	Storage Temperature	-45 to 85°C		
	Ambient Relative Humidity	5 to 95% (non-condensing)		

Power access:



- 4pin5.08mm terminal
- Inputrange: 9V-56VDC
- P1&PDualredundantpowersupply,
- Supportsreverseconnectionprotectio

Rail mounting:



Product characteristics

- Lowpowerconsumption:support5/8/16100M ethernet electrical port, Plug and play, Full load power less than 4 watts
- Classofprotection: Achieve EMC industrial Level 4 protection performance, can effectively resist the interference of static electricity, lightning strike and pulse
- Wide temperature: canworkin-40°C-85 °Charshenvironment
- Wide voltage: 9VDC-56VDC
- Strongheatdissipation: Corrugated high strength aluminumprofile housing, IP40 grade, low power design, Seismic rail mounting

Unmanaged rail industrial Ethernet switch SC Gigabit series



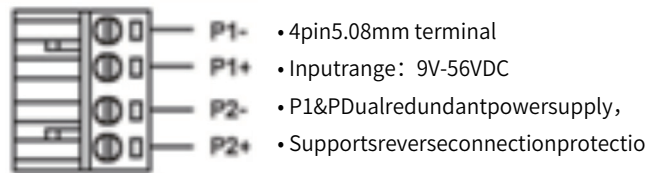
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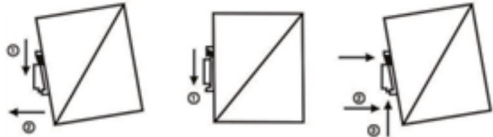
specification

Product characteristics		SC-2005G	SC-2008G	SC-2016G
Exchange characteristic	MAC Table	2K	4K	8K
	Switch Capacity	10Gbps	16bps	32Gbps
	Packet Forwarding Rate	7.44Mpps	11.904Mpps	23.808Mpps
	Switching Delay	<5us		
Communication port	Electrical Ports	5 10/100/1000Base-T (RJ45)	8 10/100/1000Base-T (RJ45)	16 10/100/1000Base-T (RJ45)
Front panel indicator	Power LED	PWR		
	Interface LED	RJ45 (Link&ACT)		
Power	Power Terminal	4-pin 5.08mm-spacing plug-in terminal block	5-pin 3.81mm-spacing plug-in terminal block	4-pin 5.08mm-spacing plug-in terminal block
	Full load power consumption	5port RJ45 <3W	<4W	<8W
	Overload Protection	Support		
	Reverse Connection Protection	Support Redundancy		
	Protection	Support		
Physical characteristics	Housing	Metal, fanless		
	Protection Class	IP40		
	Dimensions	110mm x 87mm x 36mm(W×D×H)	140mm x 90mm x 40mm(W×D×H)	44.5mm x 158mm x 100mm (W×H×D)
	Weight	0.4kg	0.55kg	0.65kg
Industrial standard	EMI:	FCC CFR47 Part 15, EN55022/CISPR22, Class B		
	EMS:	IEC61000-4-2 (ESD): ±8kV (contact), ±15kV (air) IEC61000-4-3 (RS): 10V/m (80MHz-2GHz) IEC61000-4-4 (EFT): Power Port: ±4kV; Data Port: ±2kV IEC61000-4-5 (Surge): Power Port: ±2kV/DM, ±4kV/CM; Data Port: ±2kV IEC61000-4-6 (CS): 3V (10kHz-150kHz); 10V (150kHz-80MHz) IEC61000-4-16 (Common mode conduction): 30V (cont.), 300V (1s) IEC60068-2-6 (Vibration), IEC60068-2-27 (Shock), IEC60068-2-32 (Free Fall)		
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Environmental condition	Operating Temperature	-40 to 85°C		
	Storage Temperatur	-45 to 85°C		
	Ambient Relative Humidity	5 to 95% (non-condensing)		

Power access:



Rail mounting:



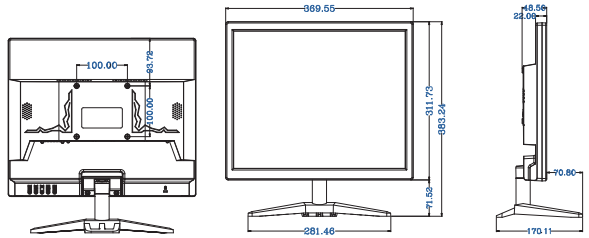
S1700HV/S1950HV/S2150HV 17/19.5/21.5 inch Display



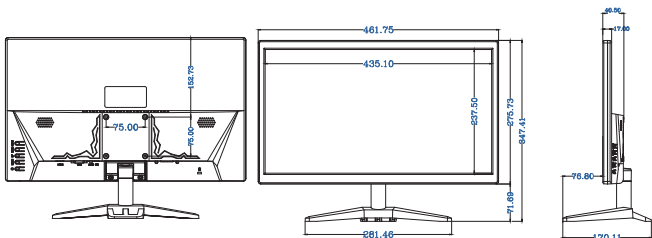
specification

Models		S1700HV	S1950HV	S2150HV	S2380HV
LCD specification	Size	17 "TFT LCD	19.5 "TFT LCD	21.5 "TFT LCD	23.8 "TFT LCD
	Resolution ratio	1280 * 1024 (4:3)	1600 * 900 (16:9)	1920 * 1080 (16:9)	1920 * 1080 (16:9)
	vsual angel	16.7M , 72%NTSC	85/85/80/80 (Typ.) (CR≥10)		16.7M (6-bit + HI-FRC)
	Luminance	30 (Typ.)(Tr/Td)ms	250cd/m²	1.5/3.5 (Typ.)(Tr/Td)	
	contrast ratio	1000:1 (Typ) . (Transmission)			
Physical characteristic	Power input	DC 12V			
	Powerdissipation	15W			
	Weight	About2.4Kg	About2.6Kg	About2.8Kg	About3.1Kg
	Size	369.55 X 383.24X 48.5mm	461.75 X 347.41 X 40.50mm	508.35 X 377.61 X 40.50mm	555.74 X 408.10 X 40.70mm
	Installation	Deskto、VESA wall mounted (100mm)	Deskto、VESA wall mounted (75mm)		
Size	Display interface	VGA、HDMI			
	Operating temperature	0-50°			

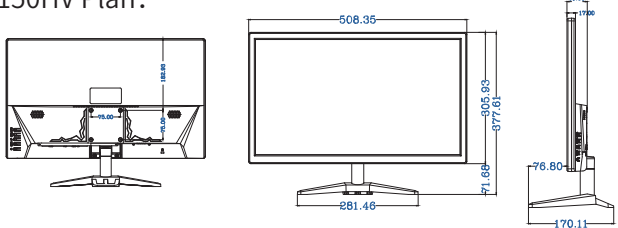
S1700HV Plan:



S1950HV Plan:



S2150HV Plan:



S2380HV Plan:

