



EVOC INTELLIGENT TECHNOLOGY



VOL9.0

PRODUCT CATALOG

EVOC INTELLIGENT TECHNOLOGY CO., LTD.

Customer Hotline: +86-755-86255066

Fax: +86-755-86255909

E-mail: oversea@evoc.com

Support Hotline: +86-755-86255099

E-Mail: support@evoc.com

Address: 5F Evoc Intelligent valley Building, No.1, Gaoxin Avenue 11th, GuangMing New District, Shenzhen 518057, China

www.evoc.com

2020 PRODUCT

CATALOG



EVOC INTELLIGENT TECHNOLOGY





R&D BASE



EVOC Profile

Founded in 1993 in Shenzhen, China and listed in HongKong Stock Exchange in 2003, EVOC is a national high-tech, national innovative and Top 500 corporation in China who specialized in R&D, manufacturing, marketing and system integration of special PC, including industrial PC and rugged PC.

Since its foundation, EVOC always commit to independent R&D and innovation, keep promoting special PC products and technology development. By far, EVOC got 730 patents, including 360 patents for invention. EVOC also led drafting 26 national standards and industrial standards. During development, EVOC established National Special PC Engineering&Technology Center and National Engineering Lab, took part in bulk of national key tech projects like Defence, Aerospace, high-end equipment, rail transportation and etc. awarded dozens of awards by nation, province and city.

EVOC provides world-class special PC and system solution with independent IP rights. As core unit for automation, intelligentize, informatization and digitization in traditional industries and strategic emerging industries, EVOC products are widely applied in Military&Defence, Aerospace, High-end Equipment Manufacturing, Artificial Intelligence, Smart Manufacturing, Machine Vision, IoT, Newly Emerging Marine Industries, Smart Transportation, Smart Medical, Smart Grid and so on.



EVOC Milestone

Focus, Mission and Vision

Focus: Integrity and Harmony, Keep Operation Forever

Mission: Keep innovation, creat value for customer, accelerate the global intelligence process

Vision: Insist on development in special PC area, become global leader

- 2019 ● EVOC awarded "Shenzhen Standard Innovation Dementstration Base"
- 2018 ● EVOC approved "National Enterprise Tech Center", selected "National Technological Innovation Demonstration Enterprise"
- 2017 ● EVOC awarded "The 19th China Patent Award" and "National Integrity Management Model Unit Award"
- 2016 ● EVOC awarded "China Top 500 Enterprise" three years in a row
- 2015 ● EVOC awarded "China Top 100 Electronic Information Enterprise"
- 2014 ● EVOC awarded "First Prize of Guangdong Science and Technology Award"
- 2013 ● EVOC approved to build "National Special PC Engineering Tech R&D Center"
- 2011 ● EVOC listed among " China Top 500 Enterprise", 18 national standards drafted by EVOC approved and released
- 2009 ● EVOC recognized "National Innovation-oriented Enterprise" and famous Chinese Brand
- 2007 ● EVOC moved headquarter to EVOC Technology Building
- 2003 ● EVOC got listed in HongKong Stock Exchange (02308.HK)
- 1998 ● EVOC firstly approved ISO9001 qualification
- 1993 ● EVOC founded in Shenzhen



EVOC Quality

Quality First, Excellence First

EVOC keep insisting on product strategy of “Quality First”. Customer satisfaction, quality first, timely response, prevention first, constant improvement, pursuit of excellence are EVOC’s quality culture. EVOC’s professional&skilled products design team, advanced digital product design system, comprehensive laboratory system, complete quality control process, all-through IT system, comprehensive product support and service ensure the advancement and reliability of product design and product quality.

EVOC Labs

EVOC own 23 laboratories in its facility which is the most complete in our sector and recognized by China National Accreditation Service for Conformity Assessment (CNAS). The test reports EVOC created will be also recognized by IAF, ILAC, PAC and APLAC.



CAE Lab



Aging Lab



Material Analysis Lab



Sand-Dust Lab



Environment Lab



Waterproof Lab



Salt Fog Lab



Mechanical Lab



Acoustical Lab



Fungus Lab



AOI Lab



Solar Radiation Lab



Machine Vision Lab



EMC Lab



Industrial Network Lab



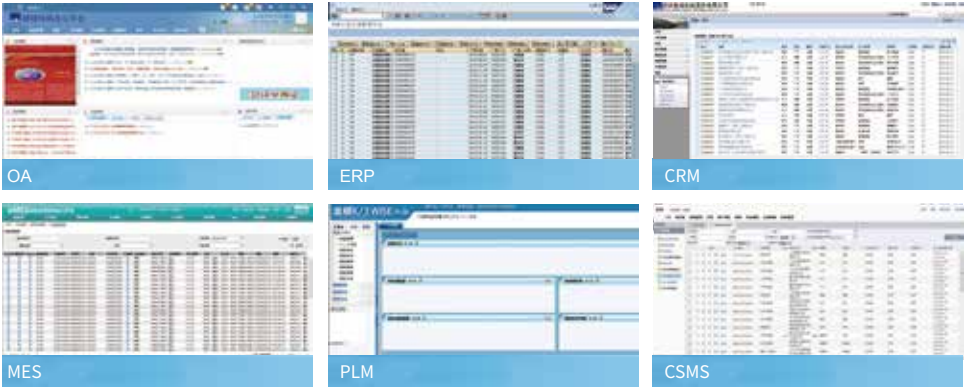
Signal Integrity Lab



EVOC Quality

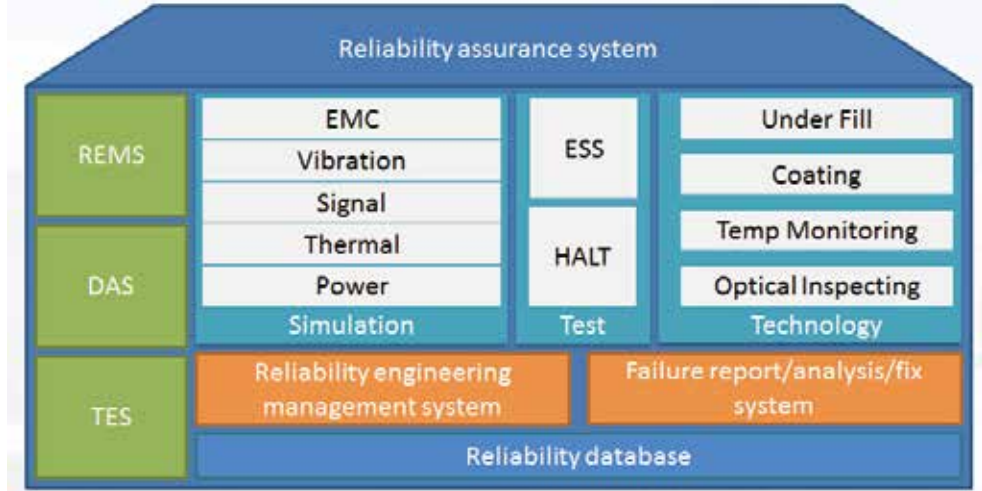
EVOC IT System

EVOC attach importance to IT system's effect on quality management during operation. By far, EVOC built all-through IT systems to ensure quality reliability including Product Lifecycle Management System (PLM), Enterprise Resource Planning System (ERP), Customer Relation Management System (CRM), Manufacturing Execution System (MES), Office Automation System (OA), Customer Service Management System (CSMS).



Unique Reliability Management System

From market requirement, products planning, R&D, design&Verify, manufacturing, delivery to products lifecycle maintenance, EVOC adopt reliability management to guarantee products reliability and meet top quality requirement.



EVOC Quality

Support & Service

EVOC provide exceptional levels of customer service to every clients who use EVOC products. Complete global service network system, well-trained technical service team, 7*24h timely response enable clients to get personalized, all-round, multipath pre-sale, in-sale and post-sale service.



Technical support Lifelong



RMA site HongKong RMA transfer stop



Warranty Standard 2 years warranty, optional 5 years



Inquiry sending email, phone, homepage, IM, SNS

EVOC Reference



1 Industrial Fanless PC

M50-E	013
M50-H	015
M60-E	017
M60-H	019
M60-H Refresh	021
P12	023
P15	025
P17	027
P19	029
W15	031
W18	033
W19	035
W21	037
PPC-1005-11	041
D15	043
D17	045

2 Industrial PC

IPC-710	049
IPC-810E	051
IPC-820	053
IPC-860	055
IPC-8206E	057
IPC-520S	059
IPC-620H-H110	061
MEC-5071-S	063
EC0-1820	067
EC0-1818-C236	069
EC0-1818(C)	071
EC0-1818(B)	073
EC0-1817	075
EC0-1816(D)	077
EC0-1816	079
EC0-1815	081
EC9-1819	085
EC7-1820	087
EC7-1821	089
EC7-1822	091
EC7-1823	093
EPE-1815	095
EPE-1816	097

3 Industrial SBC

104-1816	103
104-1815	105

104-1649	107
EC3-1820	109
EC3-1821	111
COM-1818	113
COM-1817	115
COM-1816	117
EDB-COM08	119

4 Compact PCI

CPC-3815B	123
CPC-3816B	125
CPC-1817B	127
CPC-1818	129
CPC-3414B	131
CPC-8204B	133
CPC-8408B	135

5 Rugged Computer

JNB-1302	137
JNB-1502	139
JEC-1503D	141
JEC-1502	143
JPC-8203B	145
JSV-8203	147

6 Network Appliance

EIC-3011	151
N15	153
N35	155
N35-03	157
N55-01	159
NPC-8130	161
NPC-8128	163
NPC-8208	165
NPC-8220	167
NPC-8228	169

7 Industrial Server

EIS-2102	171
EIS-2103E	173
EIS-2206B	175
EIS-2206H	177
EIS-2208	179
EIS-2209	181

8 Dedicated IPC

ERC-1004	183
TRW-8271	185
SPC-8271B	187

Industrial Fanless PC Selection Guide

Model		M50	M60	M60 Refresh
Image				
System	Chipset	Intel® Skylake-U Intel® BayTrail	Intel® H110 Intel® BayTrail	Intel® H310/Q370
	CPU	Skylake-U: Intel® Core™ i7/i5/i3 BayTrail: Intel® Celeron® J1900	H110: Intel® Core™ i7/i5/i3 BayTrail: Intel® Celeron® J1900	Intel® Core™ i7/i5/i3 Pentium®/Celeron®
	RAM	Skylake-U: Onboard 4G, 1 x SODIMM BayTrail: 1 x SODIMM	H110: 2 x SODIMMs BayTrail: 1 x SODIMM	2 x SODIMMs
I/O	LAN	2/4	2/4/6	2/4/6
	USB	4/6	8	8
	HDMI	1	1	1
	DVI	/	1	1
	VGA	1	1	1
	COM	2/4	Up to 10	Up to 10
	PS/2	1	1	1
	Audio	Line-out, Mic-in	Line-out, Mic-in	Line-out, Mic-in
	GPIO	4DI/4DO	4DI/4DO	4DI/4DO
Expansion	Mini PCIE	1, with SIM slot	1, with SIM slot	1, with SIM slot
	mSATA	1, support SATA+USB	1, support SATA+USB	1, support SATA+USB
	PCI	/	1/2/4 optional	1/2/4 optional
	PCIe	/	1/2 optional	1/2 optional
Storage	SATA	1 x 2.5" HDD/SSD	1/2 x 2.5" HDD/SSD	1/2 x 2.5" HDD/SSD
	M.2	/	/	H310: M.2 2280 Key B Q370: M.2 2280 Key M
Operation Environment		0 ~ 45°C (HDD) -10 ~ 60°C (SSD)	-5 ~ 50°C (HDD) -20 ~ 60°C (Industrial SSD)	-5 ~ 50°C (HDD) -20 ~ 60°C (Industrial SSD)
Storage Environment		-30 ~ 65°C	-40 ~ 70°C	-40 ~ 70°C
Power		DC 9 ~ 30V	DC 9 ~ 36V	DC 9 ~ 36V

Industrial Fanless Panel PC Selection Guide

Size Option		12.1", 15", 17", 19" (Square screen)		15.6", 18.5", 19", 21.5" (Widescreen)	
Model		P12/P15/P17/P19		W15/W18/W19/W21	
Image					
System	Mainboard	ECS-1837	ECS-1838	ECS-1840	ECS-1841
	Chipset	Intel® BayTrail	Intel® Skylake-U	Intel® BayTrail	Intel® H110
	CPU	Intel® Celeron® J1900	Intel® Core™ i7/i5/i3	Intel® Celeron® J1900	Intel® Core™ i7/i5/i3
	RAM	1 x SODIMM	Onboard 4G 1 x SODIMM	1 x SODIMM	2 x SODIMMs
I/O	LAN	2/4	2/4	2/4/6	2/4/6
	USB	4/6	4/6	8	8
	HDMI	1	1	1	1
	DVI	/	/	1	1
	VGA	1	1	1	1
	COM	2/4	2/4	4/5/6	4/5/6
	PS/2	1	1	1	1
	Audio	Line-out, Mic-in	Line-out, Mic-in	Line-out, Mic-in	Line-out, Mic-in
	GPIO	4DI/4DO	4DI/4DO	4DI/4DO	4DI/4DO
Expansion	Mini PCIE	1, with SIM slot			
	mSATA	1, support SATA+USB			
Storage	SATA	1 x 2.5" HDD/SSD		1/2 x 2.5" HDD/SSD	
Operation Environment		0 ~ 45°C (HDD) 0 ~ 55°C (SSD)			
Storage Environment		-20~60°C			
Power		DC 9 ~ 30V		DC 9 ~ 36V	

M50-E Low Power Consumption Fanless Box PC

Brief Introduction

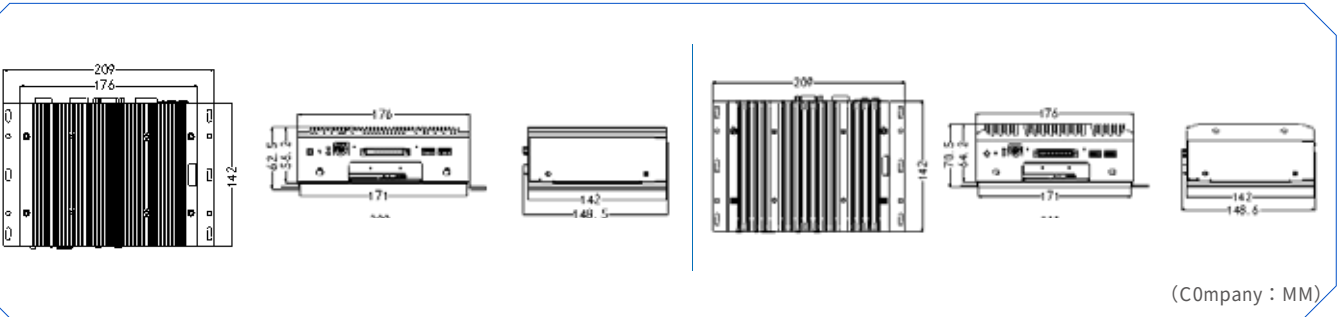
M50-E is a fanless low power consumption embedded PC, which contains onboard J1900 processor and Bay Trail platform chip technical solution, and supports WIN7, WIN10, LINUX (Kernal 2.6 and above) operating systems. The PC has a simple structure, and small form factor. Its chassis is shaped by aluminum alloy. The PC has compact structure, rugged and fanless design. Its chassis also serves for heat dissipation, and has excellent sealing and dust-proof, heat dissipation and anti-vibration performance. M50-E products are designed for machinery testing equipment, industrial automation control, intelligent traffic, freeway road lane control, etc.



Features

- Mini, Sealed and fanless design
- Cableless design, board-board connector
- Removable HDD/SSD bay
- Support 9~30V DC input
- Support -10~60°C operation
- Rich I/O and expansion

Product size chart



Specifications

Items		Specification
System	CPU	Intel® Celeron™ J1900 2.0GHz (up to 2.42GHz)
	Chipset	Intel® Bay Trail
	RAM	1 x 204-pin DDR3L SODIMM, up to 8G
Display	Graphics Unit	Intel® HD Graphics
	VGA	1 x DB15
	DVI-D	1 x DVI-D
	HDMI	1 x HDMI
	Multiple Display	Supports 2 x independent displays
Ethernet	Controller	LAN1: Intel® i211AT, supports Wake-On-Lan LAN2: intel® i211AT
	Interface	2 x RJ45
	Optional	4 x Gb LAN RJ45
Storage	HDD/SSD	1 x 2.5" HDD/SSD
	mSATA	1
I/O	USB	1 x USB 3.0 and 3 x USB 2.0 (up to 5 x USB 2.0)
	Serial Port	2 x DB9, RS232/422/485 mode selection; RS232 by default Up to 4 x DB9
	GPIO	4 x DI/O (using 1 x 10 Phoenix terminal block)
	Audio	1 x Line-out and 1 x Mic-in
	PS/2	1 x PS/2 keyboard/mouse port
	Mini PCIe	1, used for Mini PCIe card and wireless network card
Expansion	mSATA	1, used for mSATA SSD and 4G module
Power	Input Voltage	9 ~ 30 VDC with 110 ~ 240 VAC adapter
Watchdog Timer	Output	System reset
	Interval	Programmable 1 ~ 255 sec/min
Environment	Temperature	Operating: 0 ~45°C (with HDD) -10 ~ 60°C (with industrial SSD only) Storage: -30~65°C
	Humidity	95% @ 40°C (non-condensing)
	Vibration	Sine vibration: 5-15Hz/1.0mm amplitude; 15-200Hz/1.0g acceleration (SSD)
	Shock	Anti-shock: 15G, half-sine, pulse width: 11ms Three-axis six-direction
Mechanical	Dimensions (WxHxD)	176(W) x 53.5(H) x 148.5(D) mm (6.9"x 2.1"x 5.8")
	Weight	1.55kg (3.42 lbs)
	Installation	Desktop/Wall mount
EMC&Safety		Meet CE, CCC
OS Support		Windows 7/8/10, Linux

Ordering Information

P/N	Model	Description
0010-115391	M50-E-01	J1900/4G DDR3L/500G HDD/2LAN/4USB/4COM/8DIO/VGA/HDMI/PS2/Line-out/Mic-in/DC 9~30V/ Adapter
0010-115401	M50-E-02	J1900/4G DDR3L/500G HDD/4LAN/6USB/2COM/8DIO/VGA/HDMI/PS2/Line-out/Mic-in/DC 9~30V/ Adapter

M50-H High Performance Fanless Box PC

Brief Introduction

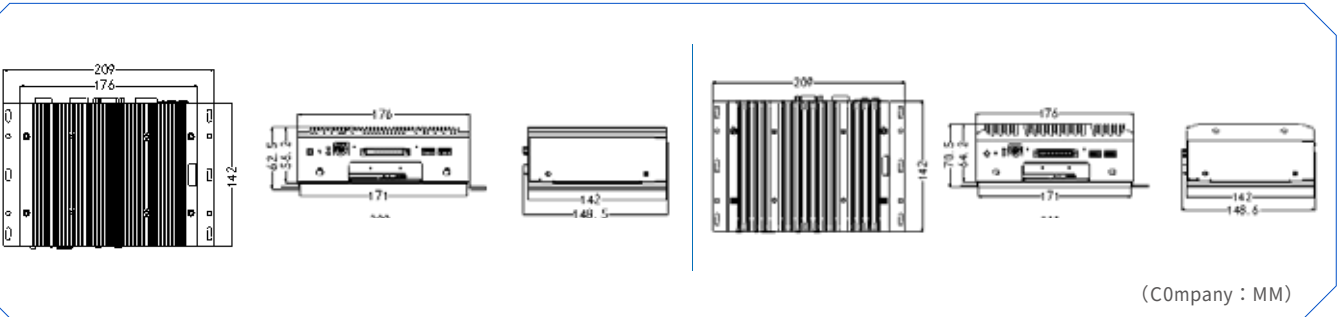
M50-H is a fanless high performance embedded PC, which contains onboard 6th generation Intel® Core™ i7/i5/i3 processor, and supports WIN7, WIN10, LINUX (Kernal 2.6 and above) operating systems. The PC has a simple structure, and small form factor. Its chassis is shaped by aluminum alloy. The PC has compact structure, rugged and fanless design. Its chassis also serves for heat dissipation, and has excellent sealing and dust-proof, heat dissipation and anti-vibration performance. M50-H products are designed for machinery testing equipment, industrial automation control, intelligent traffic, freeway road lane control, etc.



Features

- Mini, Sealed and fanless design
- Cableless design, board-board connector
- Removable HDD/SSD bay
- Support 9~30V DC input
- Support -10~60°C operation
- Rich I/O and expansion

Product size chart



Specifications

Items		Specification
System	CPU	Intel® Core™ i7-6500U 2.5GHz/i5-6300U 2.4GHz/i3-6100U 2.3GHz
	Chipset	Intel® Skylake-U
	RAM	Onboard 4G DDR4, 1 x 260-pin DDR4 SODIMM, up to 16G Total up to 20G
Display	Graphics Unit	Intel® HD Graphics
	VGA	1 x DB15
	DVI-D	1 x DVI-D
	HDMI	1 x HDMI
	Multiple Display	Supports 2 x independent displays
Ethernet	Controller	LAN1: Intel® i211AT, supports Wake-On-Lan LAN2: intel® i211AT
	Interface	2 x RJ45
	Optional	4 x Gb LAN RJ45
Storage	HDD/SSD	1 x 2.5" HDD/SSD
	mSATA	1
I/O	USB	2 x USB 3.0 and 2 x USB 2.0 (up to 4 x USB 2.0)
	Serial Port	2 x DB9, RS232/422/485 mode selection; RS232 by default Up to 4 x DB9
	GPIO	4 x DI/O (using 1 x 10 Phoenix terminal block)
	Audio	1 x Line-out and 1 x Mic-in
	PS/2	1 x PS/2 keyboard/mouse port
Expansion	Mini PCIe	1, used for Mini PCIe card and wireless network card
	mSATA	1, used for mSATA SSD and 4G module
Power	Input Voltage	9 ~ 30 VDC with 110 ~ 240 VAC adapter
Watchdog Timer	Output	System reset
	Interval	Programmable 1 ~ 255 sec/min
Environment	Temperature	Operating: 0 ~45°C (with HDD) -10 ~ 60°C (with industrial SSD only) Storage: -30~65°C
	Humidity	95% @ 40°C (non-condensing)
	Vibration	Sine vibration: 5-15Hz/1.0mm amplitude; 15-200Hz/1.0g acceleration (SSD)
	Shock	Anti-shock: 15G, half-sine, pulse width: 11ms Three-axis six-direction
Mechanical	Dimensions (WxHxD)	190(W) x 65.5(H) x 148.5(D) mm (7.5"x 2.6"x 5.8")
	Weight	2.25kg (4.96 lbs)
	Installation	Desktop/Wall mount
EMC&Safety		Meet CE, CCC
OS Support		Windows 7/8/10, Linux

Ordering Information

P/N	Model	Description
0010-115411	M50-H-01	i3-6100U/4G DDR4/500G HDD/2LAN/4USB/4COM/8DIO/VGA/HDMI/PS2/Line-out/Mic-in/DC 9~30V/ Adapter
0010-115421	M50-H-02	i5-6300U/4G DDR4/500G HDD/4LAN/6USB/2COM/8DIO/VGA/HDMI/PS2/Line-out/Mic-in/DC 9~30V/ Adapter
0010-115431	M50-H-03	i5-6500U/4G DDR4/500G HDD/4LAN/6USB/2COM/8DIO/VGA/HDMI/PS2/Line-out/Mic-in/DC 9~30V/ Adapter

M60-E Low Power Consumption Fanless Box PC

Brief Introduction

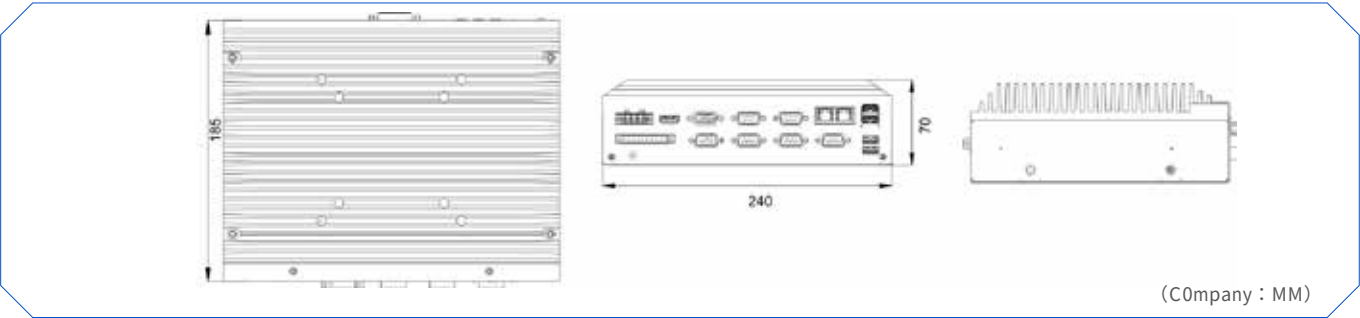
M60-E is a fanless low consumption embedded PC, which contains onboard J1900 processor and Bay Trail platform chip technical solution, and supports WIN7, WIN10, LINUX (Kernal 2.6 and above) operating systems. The PC has a simple structure, and rich I/O. Its chassis is shaped by aluminum alloy. The PC has compact structure, rugged and fanless design. Its chassis also serves for heat dissipation, and has excellent sealing and dust-proof, heat dissipation and anti-vibration performance. M60-E products are designed for machinery testing equipment, industrial automation control, intelligent traffic, freeway road lane control, etc.



Features

- Mini, Sealed and fanless design
- Cableless design, board-board connector
- Support 9~36V DC input
- Support -20~60°C operation
- Rich I/O and expansion

Product size chart



Specifications

Items		Specification
System	CPU	Intel® Celeron™ J1900 2.0GHz (up to 2.42GHz)
	Chipset	Intel® Bay Trail
	RAM	1 x 204-pin DDR3L SODIMM, up to 8G
Display	Graphics Unit	Intel® HD Graphics
	VGA	1 x DB15
	DVI-D	1 x DVI-D
	HDMI	1 x HDMI
	Multiple Display	Supports 2 x independent displays
Ethernet	Controller	LAN1: Intel® i211AT, supports Wake-On-Lan LAN2: intel® i211AT
	Interface	2 x RJ45
	Optional	4/6 x Gb LAN RJ45
Storage	HDD/SSD	1/2 x 2.5" HDD/SSD
	mSATA	1
I/O	USB	1 x USB 3.0 and 7 x USB 2.0
	Serial Port	4~6 x DB9, RS232/422/485 mode selection; RS232 by default Additional 4 x RS232 for optional
	GPIO	4 x DI/O (using 1 x 10 Phoenix terminal block)
	Audio	1 x Line-out and 1 x Mic-in
	PS/2	1 x PS/2 keyboard/mouse port
Expansion	Mini PCIe	1, used for Mini PCIe card and wireless network card
	mSATA	1, used for mSATA SSD and 4G module
	Option 1	2 x PCI slots, support up to 106.68(H) x 174.63(L) mm (4.2"x 6.9")
	Option 2	1 x PCI, 1 x PCIe1 slot (x16 connector)
	Option 3	4 x PCI slots
		Note: PCI support up to 106.68(H) x 174.63(L) mm (4.2"x 6.9") PCIe support up to 106.68(H) x 167.65(L) mm (4.2"x 6.6")
Power	Input Voltage	9 ~ 36 VDC with 110 ~ 240 VAC adapter
Watchdog Timer	Output	System reset
	Interval	Programmable 1 ~ 255 sec/min
Environment	Temperature	Operating: -5 ~50°C (with HDD) -20 ~ 60°C (with industrial SSD only) Storage: -40~70°C
	Humidity	95% @ 40°C (non-condensing)
	Vibration	Sine vibration: 2-15Hz/1.0mm amplitude; 15-200Hz/1.0g acceleration (SSD)
	Shock	Anti-shock: 10G, half-sine, pulse width: 11ms Three-axis six-direction
Mechanical	Dimensions (WxHxD)	M60-E: 240(W) x 58.5(H) x 185(D) mm (9.4"x 2.3"x 7.3") M60-E-2P: 240(W) x 113.5(H) x 185(D) mm (9.4"x 4.5"x 7.3") M60-E-4P: 240(W) x 154.5(H) x 185(D) mm (9.4"x 6.1"x 7.3")
	Weight	M60-E: 3kg (6.61 lbs) M60-E-2P: 3.8kg (8.38 lbs) M60-E-4P: 4.2kg (9.26 lbs)
	Installation	Desktop/Wall mount
EMC&Safety		Meet CE, CCC
OS Support		Windows 7/8/10, Linux

Ordering Information

P/N	Model	Description
0010-110491	M60-E-01	J1900/4G DDR3L/500G HDD/2LAN/8USB/6COM/8DIO/VGA/DVI-D/HDMI/PS2/Line-out/Mic-in/DC 9~36V/Adapter
0010-110481	M60-E-2P-01	J1900/4G DDR3L/500G HDD/2LAN/8USB/6COM/8DIO/VGA/DVI-D/HDMI/PS2/Line-out/Mic-in/DC 9~36V/Adapter 2 x PCI

M60-H High Performance Fanless Box PC

Brief Introduction

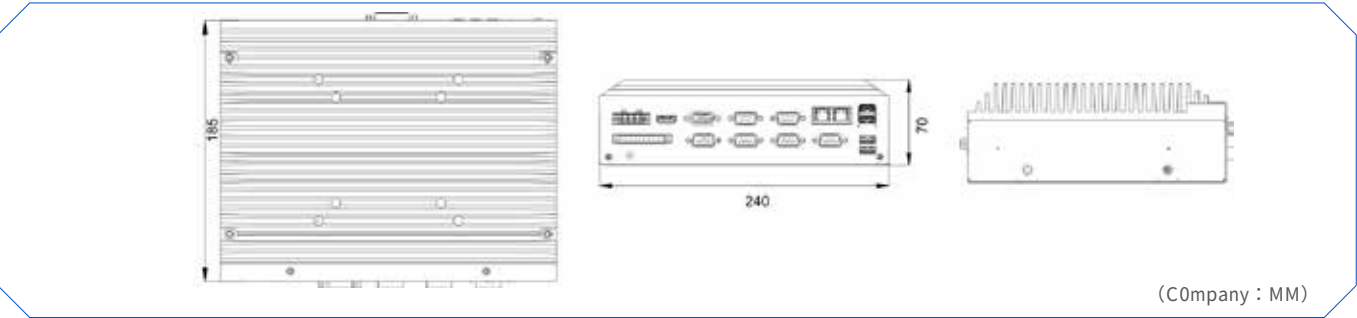
M60-H is a fanless low consumption embedded PC, which contains 6th/7th generation Intel® Core™ i7/i5/i3 processors, and supports WIN7(64bits), WIN10, LINUX (Kernal 2.6 and above) operating systems. The PC has a simple structure, and rich I/O. Its chassis is shaped by aluminum alloy. The PC has compact structure, rugged and fanless design. Its chassis also serves for heat dissipation, and has excellent sealing and dust-proof, heat dissipation and anti-vibration performance. M60-E products are designed for machinery testing equipment, industrial automation control, intelligent traffic, freeway road lane control, etc.



Features

- Mini, Sealed and fanless design
- Cableless design, board-board connector
- Support 9~36V DC input
- Support -20~60°C operation
- Rich I/O and expansion

Product size chart



Specifications

Items		Specification
System	CPU	Intel® Core™ i7-7700T/i7-6700TE/i5-7500T/i5-6500TE/i3-6100TE
	Chipset	ntel® H110
	RAM	2 x 260-pin DDR4 SODIMM, up to 32G
Display	Graphics Unit	Intel® HD Graphics 530
	VGA	1 x DB15
	DVI-D	1 x DVI-D
	HDMI	1 x HDMI
	Multiple Display	Supports 2 x independent displays
Ethernet	Controller	LAN1: Intel® i211AT, supports Wake-On-Lan LAN2: intel® i211AT
	Interface	2 x RJ45
	Optional	4/6 x Gb LAN RJ45
Storage	HDD/SSD	1/2 x 2.5" HDD/SSD
	mSATA	1
I/O	USB	4 x USB 3.0 and 4 x USB 2.0
	Serial Port	4~6 x DB9, RS232/422/485 mode selection; RS232 by default Additional 4 x RS232 for optional
	GPIO	4 x DI/O (using 1 x 10 Phoenix terminal block)
	Audio	1 x Line-out and 1 x Mic-in
	PS/2	1 x PS/2 keyboard/mouse port
Expansion	Mini PCIe	1, used for Mini PCIe card and wireless network card
	mSATA	1, used for mSATA SSD and 4G module
	Option 1	2 x PCI slots, support up to 106.68(H) x 174.63(L) mm (4.2"x 6.9")
	Option 2	1 x PCI slot, 1 x PCIe 16 slot
	Option 3	4 x PCI slots
	Note: PCI support up to 106.68(H) x 174.63(L) mm (4.2"x 6.9") PCIe support up to 106.68(H) x 167.65(L) mm (4.2"x 6.6")	
Power	Input Voltage	9 ~ 36 VDC with 110 ~ 240 VAC adapter
Watchdog	Output	System reset
Timer	Interval	Programmable 1 ~ 255 sec/min
Environment	Temperature	Operating: -5 ~50°C (with HDD) -20 ~ 60°C (with industrial SSD only) Storage: -40~70°C
	Humidity	95% @ 40°C (non-condensing)
	Vibration	Sine vibration: 2-15Hz/1.0mm amplitude; 15-200Hz/1.0g acceleration (SSD)
	Shock	Anti-shock: 10G, half-sine, pulse width: 11ms Three-axis six-direction
Mechanical	Dimensions (WxHxD)	M60-H: 240(W) x 70(H) x 185(D) mm (9.4"x 2.8"x 7.3") M60-H-2P: 240(W) x 125(H) x 185(D) mm (9.4"x 4.9"x 7.3") M60-H-4P: 240(W) x 166(H) x 185(D) mm (9.4"x 6.5"x 7.3")
	Weight	M60-H: 3.8kg (8.38 lbs) M60-H-2P: 4.6kg (10.14 lbs) M60-H-4P: 5kg (11.02 lbs)
	Installation	Desktop/Wall mount/VESA
EMC&Safety	Meet CE, CCC	
OS Support	Windows 7/8/10, Linux	

Ordering Information

P/N	Model	Description
0010-108321	M60-H-01	i3-6100TE/4G DDR4/500G HDD/2LAN/8USB/6COM/8DIO/VGA/DVI-D/HDMI/PS2/Line-out/Mic-in/ DC 9~36V/Adapter
0010-112431	M60-H-04	i5-6500TE/8G DDR4/128G SSD/2LAN/8USB/6COM/8DIO/VGA/DVI-D/HDMI/PS2/Line-out/Mic-in/ DC 9~36V/Adapter
0010-110471	M60-H-2P-01	i5-6500TE/4G DDR4/500G HDD/2LAN/8USB/10COM/8DIO/VGA/DVI-D/HDMI/PS2/Line-out/Mic- in/DC 9~36V/Adapter1 x PCI/1 x PCIe16

M60-H Refresh High Performance Fanless Box PC

Brief Introduction

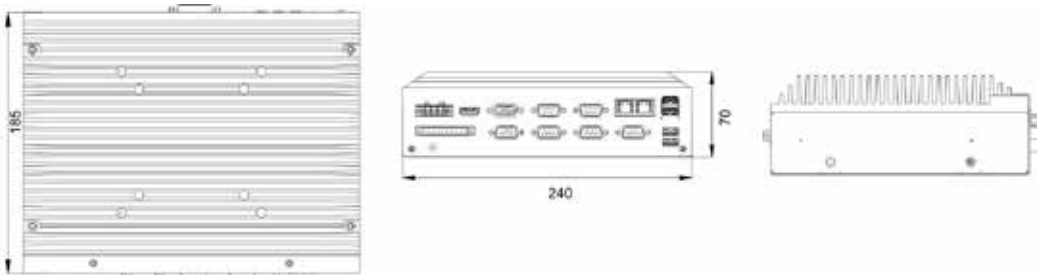
M60-H Refresh is a fanless low consumption embedded PC, which contains 8th generation Intel® Core™ i7/i5/i3 processors, and supports WIN10, LINUX (Kernal 2.6 and above) operating systems. The PC has a simple structure, and rich I/O. Its chassis is shaped by aluminum alloy. The PC has compact structure, rugged and fanless design. Its chassis also serves for heat dissipation, and has excellent sealing and dust-proof, heat dissipation and anti-vibration performance. M60-E products are designed for machinery testing equipment, industrial automation control, intelligent traffic, freeway road lane control, etc.



Features

- Mini, Sealed and fanless design
- Cableless design, board-board connector
- Support Intel® 8th gen Core™/Pentium®/Celeron® 35W/65W CPU
- Support 9 ~ 36V DC input
- Support -20 ~ 60°C operation
- Rich I/O and expansion

Product size chart



(C0mpany : MM)

Specifications

Items		Specification
System	CPU	Intel® Core™ i7-8700/i7-8700T/i5-8500/i5-8500T/i3-8100/i3-8100T/Pentium® G5400/G5400T/Celeron G4900/G4900T
	Chipset	Intel® H310/Q370
	RAM	2 x 260-pin DDR4 SODIMM, up to 64G
Display	Graphics Unit	Intel® UHD Graphics 630
	VGA	1 x DB15
	DVI-D	1 x DVI-D
	HDMI	1 x HDMI
	Multiple Display	Supports 2 x independent displays (H310) Supports 3 x independent displays (Q370)
Ethernet	Controller	LAN1: Intel® i211AT, supports Wake-On-Lan LAN2: intel® i211AT
	Interface	2 x RJ45
	Optional	4/6 x Gb LAN RJ45
Storage	HDD/SSD	1/2 x 2.5" HDD/SSD
	M.2	1 x M.2 Key M (Q370), Key B (H310) 2280
	mSATA	1
I/O	USB	4 x USB 3.1 and 4 x USB 2.0
	Serial Port	4~6 x DB9, RS232/422/485 mode selection; RS232 by default Additional 4 x RS232 for optional
	GPIO	4 x DI/O (using 1 x 10 Phoenix terminal block)
	Audio	1 x Line-out and 1 x Mic-in
	PS/2	1 x PS/2 keyboard/mouse port
	Mini PCIe	1, used for Mini PCIe card and wireless network card
Expansion	mSATA	1, used for mSATA SSD and 4G module
	Option 1	2 x PCI slots, support up to 106.68(H) x 174.63(L) mm (4.2"x 6.9")
	Option 2	1 x PCI, 1 x PCIe16
	Option 3	4 x PCI slots
	Note: PCI support up to 106.68(H) x 174.63(L) mm (4.2"x 6.9") PCIe support up to 106.68(H) x 167.65(L) mm (4.2"x 6.6")	
Power	Input Voltage	9 ~ 36 VDC with 110 ~ 240 VAC adapter
Watchdog	Output	System reset
Timer	Interval	Programmable 1 ~ 255 sec/min
Environment	Temperature	Operating: -5 ~50°C (with HDD) -20 ~ 60°C (with industrial SSD only) Storage: -40~70°C
	Humidity	95% @ 40°C (non-condensing)
	Vibration	Sine vibration: 2-15Hz/1.0mm amplitude; 15-200Hz/1.0g acceleration (SSD)
	Shock	Anti-shock: 10G, half-sine, pulse width: 11ms Three-axis six-direction
Mechanical	Dimensions (WxHxD)	M60-H: 240(W) x 70(H) x 185(D) mm (9.4"x 2.8"x 7.3") M60-H-2P: 240(W) x 125(H) x 185(D) mm (9.4"x 4.9"x 7.3") M60-H-4P: 240(W) x 166(H) x 185(D) mm (9.4"x 6.5"x 7.3")
	Weight	M60-H: 3.8kg (8.38 lbs) M60-H-2P: 4.6kg (10.14 lbs) M60-H-4P: 5kg (11.02 lbs)
	Installation	Desktop/Wall mount
EMC&Safety		Meet CE, CCC
OS Support		Windows 10, Linux

Ordering Information

P/N	Model	Description
0010-134441	M60-H-22	Q370/i7-8700/4G DDR4/500G HDD/4LAN/8USB/5COM/8DIO/VGA/DVI-D/HDMI/PS2/Line-out/Mic-in/DC 9~36V/Adapter
0010-134421	M60-H-31	H310/i5-8500T/4G DDR4/500G HDD/2LAN/8USB/6COM/8DIO/VGA/DVI-D/HDMI/PS2/Line-out/Mic-in/DC 9~36V/Adapter
0010-134431	M60-H-2P-31	H310/i5-8500T/4G DDR4/500G HDD/2LAN/8USB/10COM/8DIO/VGA/DVI-D/HDMI/PS2/Line-out/Mic-in/DC 9~36V/Adapter/1 x PCI/1 x PCIe16

P12 12.1" Aluminum-Alloy Industrial Panel PC

Brief Introduction

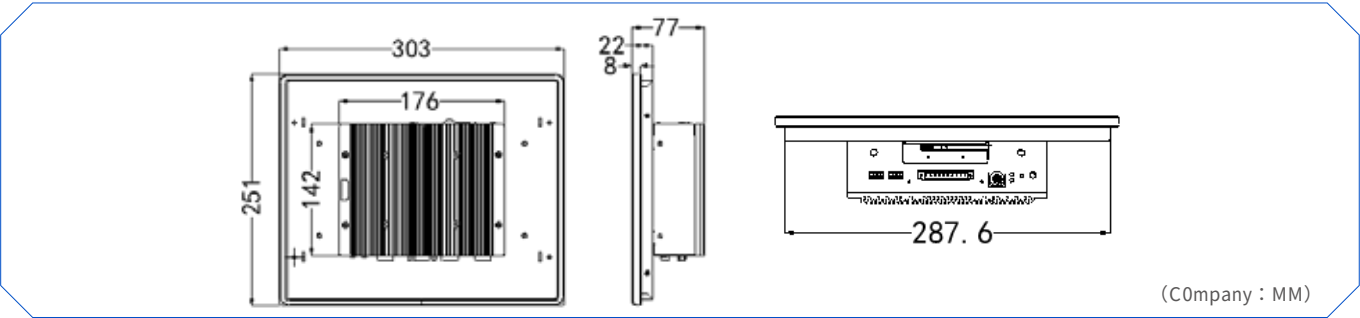
P12 is a fanless industrial panel PC, which contains Intel® Core™ i7/i5/i3/Celeron™ J1900 processor. P12 support WIN7, WIN8, WIN10 and Linux operating system. Made of aluminum alloy, the PC features simple structure, excellent dust-proof, heat dissipation, anti-vibration and EMC performance. It also provides high reliability and strong environmental adaptability. P12 is tailored for the industrial automation industry.



Features

- Sealed and fanless design
- Cableless design, board-board connector
- Multiple platforms and rich configuration optional
- Support 9~36V DC input
- Support 0~55°C operation
- Support IP65 in front

Product size chart



Specifications

Items		Specification			
System	Mainboard	ECS-1837	ECS-1838	ECS-1840	ECS-1841
	Chipset	Intel® BayTrail	Intel® Skylake-U	Intel® BayTrail	Intel® H110
	CPU	Intel® Celeron® J1900	Intel® Core™ i7-6500U/ i5-6300U/i3-6100U	Intel® Celeron® J1900	Intel® Core® i7-7700T/ i7-6700TE/i5-7500T/ i5-6500TE/i3-6100TE/ i5-6500
	RAM	1 x 204-pin DDR3L SODIMM, up to 8G	Onboard 4G, 1 x 260-pin DDR4 SODIMM, up to 16G Total 20G	1 x 204-pin DDR3L SODIMM, up to 8G	2 x 260-pin DDR4 SODIMM, up to 32G
Display	Size	12.1"			
	Resolution	1024 x 768			
	Brightness	350cd/m2			
	Contrast	800:1			
	Touch	Industrial 5-wire resistive			
	VGA	1 x DB15			
	DVI	\		1 x DVI-D	
	HDMI	1 x HDMI			
Ethernet	Controller	LAN1: Intel® i211AT, supports Wake-On-Lan		LAN2: intel® i211AT	
	Interface	2 x RJ45			
	Optional	4 x Gb LAN RJ45		4/6 x Gb LAN RJ45	
Storage	HDD/SSD	1 x 2.5" HDD/SSD		1/2 x 2.5" HDD/SSD	
	mSATA	1			
I/O	USB	1xUSB 3.0 and 3/5xUSB 2.0	2xUSB 3.0 and 2/4xUSB 2.0	1xUSB 3.0 and 7xUSB 2.0	4xUSB 3.0 and 4xUSB 2.0
	Serial Port	2/4 x DB9, RS232/422/485 mode selection; RS232 by default		4/5/6 x DB9, RS232/422/485 mode selection; RS232 by default	
	GPIO	4 x DI/O (using 1 x 10 Phoenix terminal block)			
	Audio	1 x Line-out and 1 x Mic-in			
	PS/2	1 x PS/2 keyboard/mouse port			
Expansion	Mini PCIE	1, used for 4G card with SIM slot			
	mSATA	1, used for mSATA SSD or WiFi card			
Power	Input Voltage	9 ~ 30 VDC		9 ~ 36 VDC	
Watchdog Timer	Output	System reset			
	Interval	Programmable 1 ~ 255 sec/min			
Environment	Temperature	Operating: 0 ~45°C (with HDD) 0 ~ 55°C (with SSD)		Storage: -20~60°C	
	Humidity	95% @ 40°C (non-condensing)			
	Vibration	Sine vibration: 5-15Hz/1.0mm amplitude; 15-200Hz/1.0g acceleration (SSD)			
	Shock	Anti-shock: 10G, half-sine, pulse width: 11ms Three-axis six-direction			
Mechanical	Dimensions	303mm (W) x 251mm (H)			
		77mm (D)	85mm (D)	79.6mm (D)	90.9mm (D)
	Weight	3.3kg	3.6kg	4.5kg	4.9kg
	Installation	Panel mount/VESA mount			
EMC&Safety		Meet CE, CCC			
OS Support		Windows 7/8/10, Linux			

Ordering Information

P/N	Model	Description
0010-119501	P12-01	12.1"/ECS-1837/J1900/4G/500G HDD/2LAN/4USB/4COM/8DIO/VGA/HDMI/PS2/Line-out/Mic-in/DC 9~30V/ Adapter
0010-119511	P12-31	12.1"/ECS-1841/i3-6100TE/4G/500G HDD/2LAN/8USB/6COM/8DIO/VGA/DVI/HDMI/PS2/Line-out/Mic-in/DC 9~36V/Adapter

P15 15" Aluminum-Alloy Industrial Panel PC

Brief Introduction

P15 is a fanless industrial panel PC, which contains Intel® Core™ i7/i5/i3/Celeron™ J1900 processor. P15 support WIN7, WIN8, WIN10 and Linux operating system. Made of aluminum alloy, the PC features simple structure, excellent dust-proof, heat dissipation, anti-vibration and EMC performance. It also provides high reliability and strong environmental adaptability. P15 is tailored for the industrial automation industry.



Features

Sealed and fanless design

Cableless design, board-board connector

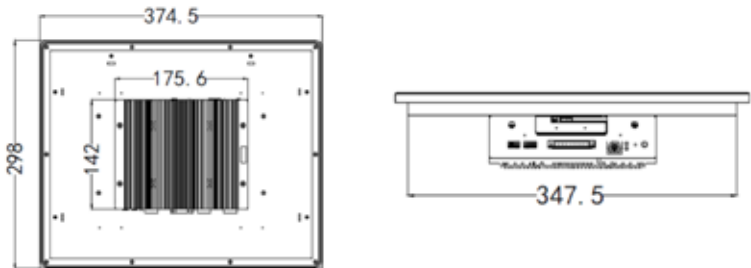
Multiple platforms and rich configuration optional

Support 9~36V DC input

Support 0~55°C operation

Support IP65 in front

Product size chart



(Company : MM)

Specifications

Items		Specification			
System	Mainboard	ECS-1837	ECS-1838	ECS-1840	ECS-1841
	Chipset	Intel® BayTrail	Intel® Skylake-U	Intel® BayTrail	Intel® H110
	CPU	Intel® Celeron® J1900	Intel® Core™ i7-6500U/ i5-6300U/i3-6100U	Intel® Celeron® J1900	Intel® Core® i7-7700T/ i7-6700TE/i5-7500T/ i5-6500TE/i3-6100TE/ i5-6500
	RAM	1 x 204-pin DDR3L SODIMM, up to 8G	Onboard 4G, 1 x 260-pin DDR4 SODIMM, up to 16G Total 20G	1 x 204-pin DDR3L SODIMM, up to 8G	2 x 260-pin DDR4 SODIMM, up to 32G
Display	Size	15"			
	Resolution	1024 x 768			
	Brightness	300cd/m2			
	Contrast	600:1			
	Touch	Industrial 5-wire resistive			
	VGA	1 x DB15			
	DVI	\		1 x DVI-D	
HDMI	1 x HDMI				
Ethernet	Controller	LAN1: Intel® i211AT, supports Wake-On-Lan		LAN2: intel® i211AT	
	Interface	2 x RJ45			
	Optional	4 x Gb LAN RJ45		4/6 x Gb LAN RJ45	
Storage	HDD/SSD	1 x 2.5" HDD/SSD		1/2 x 2.5" HDD/SSD	
	mSATA	1			
I/O	USB	1xUSB 3.0 and 3/5xUSB 2.0	2xUSB 3.0 and 2/4xUSB 2.0	1xUSB 3.0 and 7xUSB 2.0	4xUSB 3.0 and 4xUSB 2.0
	Serial Port	2/4 x DB9, RS232/422/485 mode selection; RS232 by default		4/5/6 x DB9, RS232/422/485 mode selection; RS232 by default	
	GPIO	4 x DI/O (using 1 x 10 Phoenix terminal block)			
	Audio	1 x Line-out and 1 x Mic-in			
	PS/2	1 x PS/2 keyboard/mouse port			
Expansion	Mini PCIE	1, used for 4G card with SIM slot			
	mSATA	1, used for mSATA SSD or WiFi card			
Power	Input Voltage	9 ~ 30 VDC		9 ~ 36 VDC	
Watchdog Timer	Output	System reset			
	Interval	Programmable 1 ~ 255 sec/min			
Environment	Temperature	Operating: 0 ~45°C (with HDD) 0 ~ 55°C (with SSD)		Storage: -20~60°C	
	Humidity	95% @ 40°C (non-condensing)			
	Vibration	Sine vibration: 5-15Hz/1.0mm amplitude; 15-200Hz/1.0g acceleration (SSD)			
	Shock	Anti-shock: 10G, half-sine, pulse width: 11ms Three-axis six-direction			
Mechanical	Dimensions	350.5mm (W) x 274mm (H)			
		78.5mm (D)	86.6mm (D)	81.2mm (D)	92.6mm (D)
	Weight	4.25kg	4.8kg	5.5kg	5.95kg
	Installation	Panel mount/VESA mount			
EMC&Safety		Meet CE, CCC			
OS Support		Windows 7/8/10, Linux			

Ordering Information

P/N	Model	Description
0010-117221	P15-01	15"/ECS-1837/J1900/4G/500G HDD/2LAN/4USB/4COM/8DIO/VGA/HDMI/PS2/Line-out/Mic-in/DC 9~30V/Adapter
0010-117231	P15-31	15"/ECS-1841/i3-6100TE/4G/500G HDD/2LAN/8USB/6COM/8DIO/VGA/DVI/HDMI/PS2/Line-out/Mic-in/DC 9~36V/Adapter

P17 17" Aluminum-Alloy Industrial Panel PC

Brief Introduction

P17 is a fanless industrial panel PC, which contains Intel® Core™ i7/i5/i3/Celeron™ J1900 processor. P17 support WIN7, WIN8, WIN10 and Linux operating system. Made of aluminum alloy, the PC features simple structure, excellent dust-proof, heat dissipation, anti-vibration and EMC performance. It also provides high reliability and strong environmental adaptability. P17 is tailored for the industrial automation industry.



Features

Sealed and fanless design

Cableless design, board-board connector

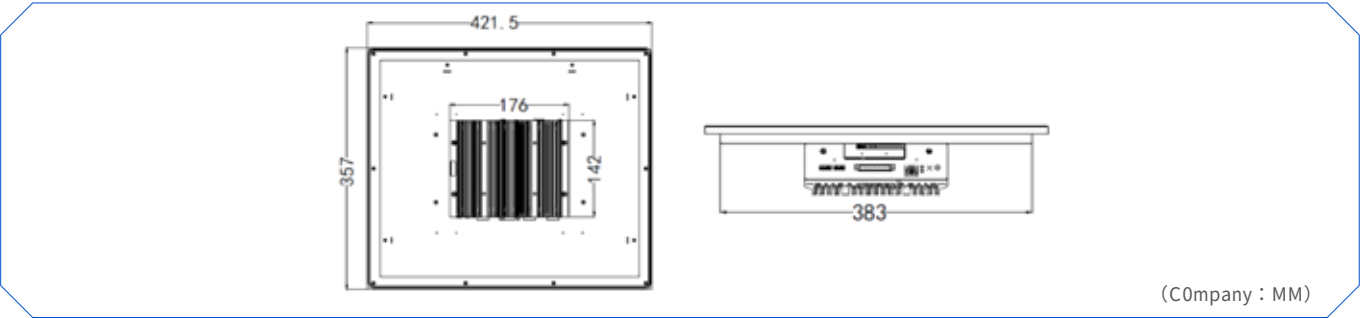
Multiple platforms and rich configuration optional

Support 9~36V DC input

Support 0~55°C operation

Support IP65 in front

Product size chart



Specifications

Items		Specification			
System	Mainboard	ECS-1837	ECS-1838	ECS-1840	ECS-1841
	Chipset	Intel® BayTrail	Intel® Skylake-U	Intel® BayTrail	Intel® H110
	CPU	Intel® Celeron® J1900	Intel® Core™ i7-6500U/ i5-6300U/i3-6100U	Intel® Celeron® J1900	Intel® Core® i7-7700T/ i7-6700TE/i5-7500T/ i5-6500TE/i3-6100TE/ i5-6500
	RAM	1 x 204-pin DDR3L SODIMM, up to 8G	Onboard 4G, 1 x 260-pin DDR4 SODIMM, up to 16G Total 20G	1 x 204-pin DDR3L SODIMM, up to 8G	2 x 260-pin DDR4 SODIMM, up to 32G
Display	Size	17”			
	Resolution	1280 x 1024			
	Brightness	250cd/m2			
	Contrast	1000:1			
	Touch	Industrial 5-wire resistive			
	VGA	1 x DB15			
	DVI	\		1 x DVI-D	
	HDMI	1 x HDMI			
Ethernet	Controller	LAN1: Intel® i211AT, supports Wake-On-Lan		LAN2: intel® i211AT	
	Interface	2 x RJ45			
	Optional	4 x Gb LAN RJ45		4/6 x Gb LAN RJ45	
Storage	HDD/SSD	1 x 2.5” HDD/SSD		1/2 x 2.5” HDD/SSD	
	mSATA	1			
I/O	USB	1xUSB 3.0 and 3/5xUSB 2.0	2xUSB 3.0 and 2/4xUSB 2.0	1xUSB 3.0 and 7xUSB 2.0	4xUSB 3.0 and 4xUSB 2.0
	Serial Port	2/4 x DB9, RS232/422/485 mode selection; RS232 by default		4/5/6 x DB9, RS232/422/485 mode selection; RS232 by default	
	GPIO	4 x DI/O (using 1 x 10 Phoenix terminal block)			
	Audio	1 x Line-out and 1 x Mic-in			
	PS/2	1 x PS/2 keyboard/mouse port			
Expansion	Mini PCIE	1, used for 4G card with SIM slot			
	mSATA	1, used for mSATA SSD or WiFi card			
Power	Input Voltage	9 ~ 30 VDC		9 ~ 36 VDC	
Watchdog Timer	Output	System reset			
	Interval	Programmable 1 ~ 255 sec/min			
Environment	Temperature	Operating: 0 ~45°C (with HDD) 0 ~ 55°C (with SSD)		Storage: -20~60°C	
	Humidity	95% @ 40°C (non-condensing)			
	Vibration	Sine vibration: 5-15Hz/1.0mm amplitude; 15-200Hz/1.0g acceleration (SSD)			
	Shock	Anti-shock: 10G, half-sine, pulse width: 11ms Three-axis six-direction			
Mechanical	Dimensions	386.6mm (W) x 323.6mm (H)			
		76.7mm (D)	84.7mm (D)	79.2mm (D)	90.6mm (D)
	Weight	5.2kg	5.7kg	6.45kg	6.8kg
	Installation	Panel mount/VESA mount			
EMC&Safety		Meet CE, CCC			
OS Support		Windows 7/8/10, Linux			

Ordering Information

P/N	Model	Description
0010-117241	P17-01	17"/ECS-1840/J1900/4G/500G HDD/2LAN/8USB/6COM/8DIO/VGA/DVI/HDMI/PS2/Line-out/Mic-in/DC 9~36V/Adapter
0010-117251	P17-31	17"/ECS-1838/i3-6100U/4G/500G HDD/2LAN/4USB/4COM/8DIO/VGA/HDMI/PS2/Line-out/Mic-in/DC 9~30V/Adapter

P19 19" Aluminum-Alloy Industrial Panel PC

Brief Introduction

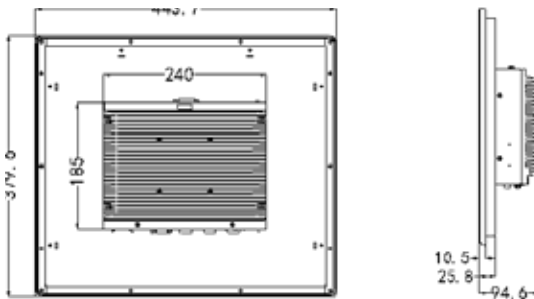
P19 is a fanless industrial panel PC, which contains Intel® Core™ i7/i5/i3/Celeron™ J1900 processor. P19 support WIN7, WIN8, WIN10 and Linux operating system. Made of aluminum alloy, the PC features simple structure, excellent dust-proof, heat dissipation, anti-vibration and EMC performance. It also provides high reliability and strong environmental adaptability. P19 is tailored for the industrial automation industry.



Features

- Sealed and fanless design
- Cableless design, board-board connector
- Multiple platforms and rich configuration optional
- Support 9~36V DC input
- Support 0~55°C operation
- Support IP65 in front

Product size chart



(Company : MM)

Specifications

Items		Specification			
System	Mainboard	ECS-1837	ECS-1838	ECS-1840	ECS-1841
	Chipset	Intel® BayTrail	Intel® Skylake-U	Intel® BayTrail	Intel® H110
	CPU	Intel® Celeron® J1900	Intel® Core™ i7-6500U/ i5-6300U/i3-6100U	Intel® Celeron® J1900	Intel® Core® i7-7700T/ i7-6700TE/i5-7500T/ i5-6500TE/i3-6100TE/ i5-6500
	RAM	1 x 204-pin DDR3L SODIMM, up to 8G	Onboard 4G, 1 x 260-pin DDR4 SODIMM, up to 16G Total 20G	1 x 204-pin DDR3L SODIMM, up to 8G	2 x 260-pin DDR4 SODIMM, up to 32G
Display	Size	19"			
	Resolution	1280 x 1024			
	Brightness	250cd/m2			
	Contrast	1000:1			
	Touch	Industrial 5-wire resistive			
	VGA	1 x DB15			
	DVI	\		1 x DVI-D	
Ethernet	HDMI	1 x HDMI			
	Controller	LAN1: Intel® i211AT, supports Wake-On-Lan		LAN2: intel® i211AT	
	Interface	2 x RJ45			
Storage	Optional	4 x Gb LAN RJ45		4/6 x Gb LAN RJ45	
	HDD/SSD	1 x 2.5" HDD/SSD		1/2 x 2.5" HDD/SSD	
	mSATA	1			
I/O	USB	1xUSB 3.0 and 3/5xUSB 2.0	2xUSB 3.0 and 2/4xUSB 2.0	1xUSB 3.0 and 7xUSB 2.0	4xUSB 3.0 and 4xUSB 2.0
	Serial Port	2/4 x DB9, RS232/422/485 mode selection; RS232 by default		4/5/6 x DB9, RS232/422/485 mode selection; RS232 by default	
	GPIO	4 x DI/O (using 1 x 10 Phoenix terminal block)			
	Audio	1 x Line-out and 1 x Mic-in			
	PS/2	1 x PS/2 keyboard/mouse port			
Expansion	Mini PCIE	1, used for 4G card with SIM slot			
	mSATA	1, used for mSATA SSD or WiFi card			
Power	Input Voltage	9 ~ 30 VDC		9 ~ 36 VDC	
Watchdog Timer	Output	System reset			
	Interval	Programmable 1 ~ 255 sec/min			
Environment	Temperature	Operating: 0 ~45°C (with HDD) 0 ~ 55°C (with SSD)		Storage: -20~60°C	
	Humidity	95% @ 40°C (non-condensing)			
	Vibration	Sine vibration: 5-15Hz/1.0mm amplitude; 15-200Hz/1.0g acceleration (SSD)			
	Shock	Anti-shock: 10G, half-sine, pulse width: 11ms Three-axis six-direction			
Mechanical	Dimensions	443.7mm (W) x 379.6mm (H)			
		80.7mm (D)	88.7mm (D)	83.2mm (D)	94.6mm (D)
	Weight	6.1kg	6.5kg	7.3kg	7.7kg
	Installation	Panel mount/VESA mount			
EMC&Safety		Meet CE, CCC			
OS Support		Windows 7/8/10, Linux			

Ordering Information

P/N	Model	Description
0010-119611	P19-01	19"/ECS-1840/J1900/4G/500G HDD/2LAN/8USB/6COM/8DIO/VGA/DVI/HDMI/PS2/Line-out/Mic-in/DC 9~36V/Adapter
0010-119621	P19-31	19"/ECS-1838/i3-6100U/4G/500G HDD/2LAN/4USB/4COM/8DIO/VGA/HDMI/PS2/Line-out/Mic-in/DC 9~30V/Adapter

W15 15.6" Widescreen Aluminum-Alloy Industrial Panel PC

Brief Introduction

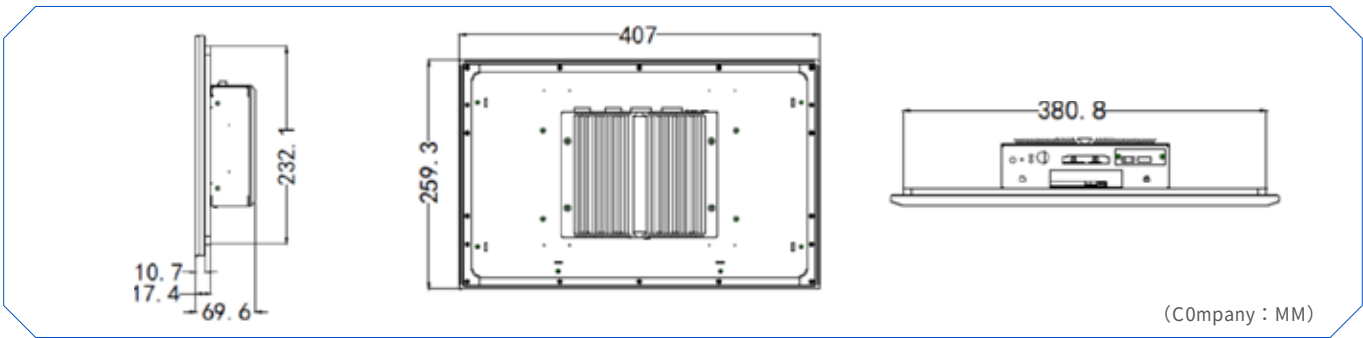
W15 is a fanless industrial panel PC, which contains Intel® Core™ i7/i5/i3/Celeron™ J1900 processor. W15 support WIN7, WIN8, WIN10 and Linux operating system. Made of aluminum alloy, the PC features simple structure, excellent dust-proof, heat dissipation, anti-vibration and EMC performance. It also provides high reliability and strong environmental adaptability. W15 is tailored for the industrial automation industry.



Features

- Sealed and fanless design
- Cableless design, board-board connector
- Multiple platforms and rich configuration optional
- Support 9~36V DC input
- Support 0~55°C operation
- Support IP65 in front

Product size chart



Specifications

Items		Specification			
System	Mainboard	ECS-1837	ECS-1838	ECS-1840	ECS-1841
	Chipset	Intel® BayTrail	Intel® Skylake-U	Intel® BayTrail	Intel® H110
	CPU	Intel® Celeron® J1900	Intel® Core™ i7-6500U/ i5-6300U/i3-6100U	Intel® Celeron® J1900	Intel® Core® i7-7700T/i7-6700TE/i5-7500T/i5-6500TE/ i3-6100TE/i5-6500
	RAM	1 x 204-pin DDR3L SODIMM, up to 8G	Onboard 4G, 1 x 260-pin DDR4 SODIMM, up to 16G Total 20G	1 x 204-pin DDR3L SODIMM, up to 8G	2 x 260-pin DDR4 SODIMM, up to 32G
Display	Size	15.6"			
	Resolution	1920 x 1080			
	Brightness	250cd/m2			
	Contrast	800:1			
	Touch	Industrial projective capacitive touch, support multi-touch			
	VGA	1 x DB15			
	DVI	\		1 x DVI-D	
Ethernet	HDMI	1 x HDMI			
	Controller	LAN1: Intel® i211AT, supports Wake-On-Lan		LAN2: intel® i211AT	
	Interface	2 x RJ45			
Storage	Optional	4 x Gb LAN RJ45		4/6 x Gb LAN RJ45	
	HDD/SSD	1 x 2.5" HDD/SSD		1/2 x 2.5" HDD/SSD	
I/O	mSATA	1			
	USB	1xUSB 3.0 and 3/5xUSB 2.0	2xUSB 3.0 and 2/4xUSB 2.0	1xUSB 3.0 and 7xUSB 2.0	4xUSB 3.0 and 4xUSB 2.0
	Serial Port	2/4 x DB9, RS232/422/485 mode selection; RS232 by default		4/5/6 x DB9, RS232/422/485 mode selection; RS232 by default	
	GPIO	4 x DI/O (using 1 x 10 Phoenix terminal block)			
	Audio	1 x Line-out and 1 x Mic-in			
Expansion	PS/2	1 x PS/2 keyboard/mouse port			
	Mini PCIE	1, used for 4G card with SIM slot			
	mSATA	1, used for mSATA SSD or WiFi card			
Power	Input Voltage	9 ~ 30 VDC		9 ~ 36 VDC	
Watchdog Timer	Output	System reset			
	Interval	Programmable 1 ~ 255 sec/min			
Environment	Temperature	Operating: 0 ~45°C (with HDD) -10 ~ 55°C (with SSD)		Storage: -30~65°C	
	Humidity	95% @ 40°C (non-condensing)			
	Vibration	Sine vibration: 5-15Hz/1.0mm amplitude; 15-200Hz/1.0g acceleration (SSD)			
	Shock	Anti-shock: 10G, half-sine, pulse width: 11ms Three-axis six-direction			
Mechanical	Dimensions	407mm (W) x 259.3mm (H)			
		72.3mm (D)	80.3mm (D)	74.8mm (D)	86.4mm (D)
	Weight	3.7kg	4.25kg	4.2kg	4.3kg
	Installation	Panel mount/VESA mount			
EMC&Safety		Meet CE, CCC			
OS Support		Windows 7/8/10, Linux			

Ordering Information

P/N	Model	Description
0010-115441	W15-01	15.6"/ECS-1837/J1900/4G/500G HDD/2LAN/4USB/4COM/8DIO/VGA/HDMI/PS2/Line-out/Mic-in/DC 9~30V/Adapter
0010-115451	W15-31	15.6"/ECS-1838/i3-6100U/4G/500G HDD/2LAN/4USB/4COM/8DIO/VGA/HDMI/PS2/Line-out/Mic-in/DC 9~30V/Adapter
0010-115461	W15-32	15.6"/ECS-1838/i5-6300U/4G/500G HDD/2LAN/4USB/4COM/8DIO/VGA/HDMI/PS2/Line-out/Mic-in/DC 9~30V/Adapter
0010-115471	W15-33	15.6"/ECS-1838/i7-6500U/4G/500G HDD/2LAN/4USB/4COM/8DIO/VGA/HDMI/PS2/Line-out/Mic-in/DC 9~30V/Adapter
0010-114001	W15-51	15.6"/ECS-1841/i3-6100TE/4G/500G HDD/2LAN/8USB/6COM/8DIO/VGA/DVI/HDMI/PS2/Line-out/Mic-in/DC 9~36V/Adapter

W18 18.5" Widescreen Aluminum-Alloy Industrial Panel PC

Brief Introduction

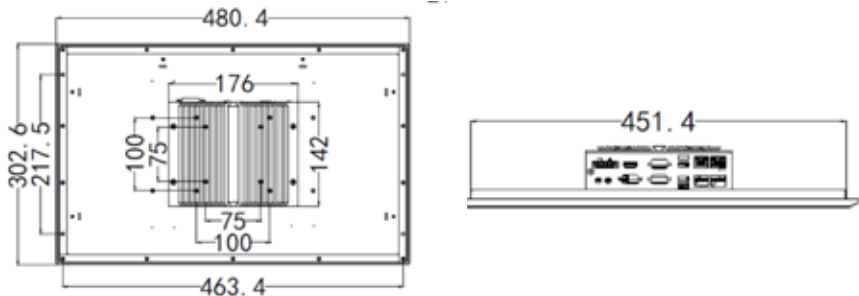
W18 is a fanless industrial panel PC, which contains Intel® Core™ i7/i5/i3/Celeron™ J1900 processor. W18 support WIN7, WIN8, WIN10 and Linux operating system. Made of aluminum alloy, the PC features simple structure, excellent dust-proof, heat dissipation, anti-vibration and EMC performance. It also provides high reliability and strong environmental adaptability. W18 is tailored for the industrial automation industry.



Features

- Sealed and fanless design
- Cableless design, board-board connector
- Multiple platforms and rich configuration optional
- Support 9~36V DC input
- Support 0~55°C operation
- Support IP65 in front

Product size chart



(Company : MM)

Specifications

Items		Specification			
System	Mainboard	ECS-1837	ECS-1838	ECS-1840	ECS-1841
	Chipset	Intel® BayTrail	Intel® Skylake-U	Intel® BayTrail	Intel® H110
	CPU	Intel® Celeron® J1900	Intel® Core™ i7-6500U/ i5-6300U/i3-6100U	Intel® Celeron® J1900	Intel® Core® i7-7700T/ i7-6700TE/i5-7500T/ i5-6500TE/i3-6100TE/ i5-6500
	RAM	1 x 204-pin DDR3L SODIMM, up to 8G	Onboard 4G, 1 x 260-pin DDR4 SODIMM, up to 16G Total 20G	1 x 204-pin DDR3L SODIMM, up to 8G	2 x 260-pin DDR4 SODIMM, up to 32G
Display	Size	18.5"			
	Resolution	1366 x 768			
	Brightness	250cd/m2			
	Contrast	1000:1			
	Touch	Industrial projective capacitive touch, support multi-touch			
	VGA	1 x DB15			
	DVI	\		1 x DVI-D	
Ethernet	HDMI	1 x HDMI			
	Controller	LAN1: Intel® i211AT, supports Wake-On-Lan		LAN2: intel® i211AT	
	Interface	2 x RJ45			
Storage	Optional	4 x Gb LAN RJ45		4/6 x Gb LAN RJ45	
	HDD/SSD	1 x 2.5" HDD/SSD		1/2 x 2.5" HDD/SSD	
I/O	mSATA	1			
	USB	1xUSB 3.0 and 3/5xUSB 2.0	2xUSB 3.0 and 2/4xUSB 2.0	1xUSB 3.0 and 7xUSB 2.0	4xUSB 3.0 and 4xUSB 2.0
	Serial Port	2/4 x DB9, RS232/422/485 mode selection; RS232 by default		4/5/6 x DB9, RS232/422/485 mode selection; RS232 by default	
	GPIO	4 x DI/O (using 1 x 10 Phoenix terminal block)			
	Audio	1 x Line-out and 1 x Mic-in			
	PS/2	1 x PS/2 keyboard/mouse port			
Expansion	Mini PCIE	1, used for 4G card with SIM slot			
	mSATA	1, used for mSATA SSD or WiFi card			
Power	Input Voltage	9 ~ 30 VDC		9 ~ 36 VDC	
Watchdog Timer	Output	System reset			
	Interval	Programmable 1 ~ 255 sec/min			
Environment	Temperature	Operating: 0 ~45°C (with HDD) -10 ~ 55°C (with SSD)		Storage: -30~65°C	
	Humidity	95% @ 40°C (non-condensing)			
	Vibration	Sine vibration: 5-15Hz/1.0mm amplitude; 15-200Hz/1.0g acceleration (SSD)			
	Shock	Anti-shock: 10G, half-sine, pulse width: 11ms Three-axis six-direction			
Mechanical	Dimensions	480.4mm (W) x 302.6mm (H)			
		76mm (D)	84mm (D)	78.3mm (D)	89.9mm (D)
	Weight	5.5kg	6.05kg	6.12kg	6.14kg
	Installation	Panel mount/VESA mount			
EMC&Safety		Meet CE, CCC			
OS Support		Windows 7/8/10, Linux			

Ordering Information

P/N	Model	Description
0010-115501	W18-01	18.5"/ECS-1837/J1900/4G/500G HDD/2LAN/4USB/4COM/8DIO/VGA/HDMI/PS2/Line-out/Mic-in/DC 9~30V/Adapter
0010-115511	W18-31	18.5"/ECS-1838/i3-6100U/4G/500G HDD/4LAN/6USB/2COM/8DIO/VGA/HDMI/PS2/Line-out/Mic-in/DC 9~30V/Adapter
0010-114011	W18-51	18.5"/ECS-1841/i3-6100TE/4G/500G HDD/2LAN/8USB/6COM/8DIO/VGA/DVI/HDMI/PS2/Line-out/Mic-in/DC 9~36V/Adapter

W19 19" Widescreen Aluminum-Alloy Industrial Panel PC

Brief Introduction

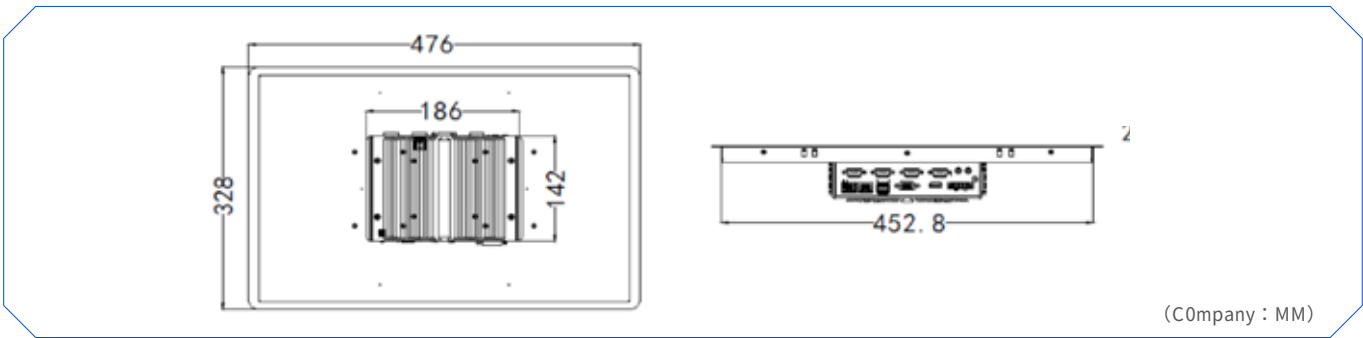
W19 is a fanless industrial panel PC, which contains Intel® Core™ i7/i5/i3/Celeron™ J1900 processor. W19 support WIN7, WIN8, WIN10 and Linux operating system. Made of aluminum alloy, the PC features simple structure, excellent dust-proof, heat dissipation, anti-vibration and EMC performance. It also provides high reliability and strong environmental adaptability. W19 is tailored for the industrial automation industry.



Features

- Sealed and fanless design
- Cableless design, board-board connector
- Multiple platforms and rich configuration optional
- Support 9~36V DC input
- Support 0~55°C operation
- Support IP65 in front

Product size chart



Specifications

Items		Specification			
System	Mainboard	ECS-1837	ECS-1838	ECS-1840	ECS-1841
	Chipset	Intel® BayTrail	Intel® Skylake-U	Intel® BayTrail	Intel® H110
	CPU	Intel® Celeron® J1900	Intel® Core™ i7-6500U/ i5-6300U/i3-6100U	Intel® Celeron® J1900	Intel® Core® i7-7700T/ i7-6700TE/i5-7500T/ i5-6500TE/i3-6100TE/ i5-6500
	RAM	1 x 204-pin DDR3L SODIMM, up to 8G	Onboard 4G, 1 x 260-pin DDR4 SODIMM, up to 16G Total 20G	1 x 204-pin DDR3L SODIMM, up to 8G	2 x 260-pin DDR4 SODIMM, up to 32G
Display	Size	19"			
	Resolution	1440 x 900			
	Brightness	250cd/m2			
	Contrast	1000:1			
	Touch	Industrial projective capacitive touch, support multi-touch			
	VGA	1 x DB15			
	DVI	\			1 x DVI-D
Ethernet	HDMI	1 x HDMI			
	Controller	LAN1: Intel® i211AT, supports Wake-On-Lan LAN2: intel® i211AT			
	Interface	2 x RJ45			
Storage	Optional	4 x Gb LAN RJ45			4/6 x Gb LAN RJ45
	HDD/SSD	1 x 2.5" HDD/SSD			1/2 x 2.5" HDD/SSD
	mSATA	1			
I/O	USB	1xUSB 3.0 and 3/5xUSB 2.0	2xUSB 3.0 and 2/4xUSB 2.0	1xUSB 3.0 and 7xUSB 2.0	4xUSB 3.0 and 4xUSB 2.0
	Serial Port	2/4 x DB9, RS232/422/485 mode selection; RS232 by default			4/5/6 x DB9, RS232/422/485 mode selection; RS232 by default
	GPIO	4 x DI/O (using 1 x 10 Phoenix terminal block)			
	Audio	1 x Line-out and 1 x Mic-in			
	PS/2	1 x PS/2 keyboard/mouse port			
Expansion	Mini PCIE	1, used for 4G card with SIM slot			
	mSATA	1, used for mSATA SSD or WiFi card			
Power	Input Voltage	9 ~ 30 VDC			9 ~ 36 VDC
Watchdog Timer	Output	System reset			
	Interval	Programmable 1 ~ 255 sec/min			
Environment	Temperature	Operating: 0 ~45°C (with HDD) -10 ~ 55°C (with SSD) Storage: -30~65°C			
	Humidity	95% @ 40°C (non-condensing)			
	Vibration	Sine vibration: 5-15Hz/1.0mm amplitude; 15-200Hz/1.0g acceleration (SSD)			
	Shock	Anti-shock: 10G, half-sine, pulse width: 11ms Three-axis six-direction			
Mechanical	Dimensions	476mm (W) x 328mm (H)			
		77.2mm (D)	85.1mm (D)	79.7mm (D)	91.3mm (D)
	Weight	6.23kg	6.35kg	6.4kg	6.55kg
EMC&Safety	Installation	Panel mount/VESA mount			
	OS Support	Meet CE, CCC			
		Windows 7/8/10, Linux			

Ordering Information

P/N	Model	Description
0010-114021	W19-51	19"/ECS-1841/i3-6100TE/4G/500G HDD/2LAN/8USB/6COM/8DIO/VGA/DVI/HDMI/PS2/Line-out/Mic-in/DC 9~36V/ Adapter

W21 21.5" Widescreen Aluminum-Alloy Industrial Panel PC

Brief Introduction

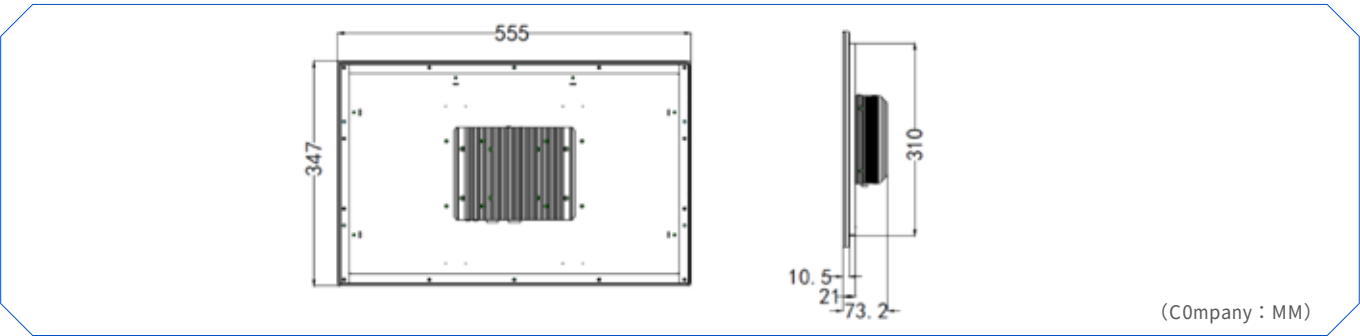
W21 is a fanless industrial panel PC, which contains Intel® Core™ i7/i5/i3/Celeron™ J1900 processor. W21 support WIN7, WIN8, WIN10 and Linux operating system. Made of aluminum alloy, the PC features simple structure, excellent dust-proof, heat dissipation, anti-vibration and EMC performance. It also provides high reliability and strong environmental adaptability. W21 is tailored for the industrial automation industry.



Features

- Sealed and fanless design
- Cableless design, board-board connector
- Multiple platforms and rich configuration optional
- Support 9~36V DC input
- Support 0~55°C operation
- Support IP65 in front

Product size chart



Specifications

Items		Specification			
System	Mainboard	ECS-1837	ECS-1838	ECS-1840	ECS-1841
	Chipset	Intel® BayTrail	Intel® Skylake-U	Intel® BayTrail	Intel® H110
	CPU	Intel® Celeron® J1900	Intel® Core™ i7-6500U/ i5-6300U/i3-6100U	Intel® Celeron® J1900	Intel® Core® i7-7700T/ i7-6700TE/i5-7500T/ i5-6500TE/i3-6100TE/ i5-6500
	RAM	1 x 204-pin DDR3L SODIMM, up to 8G	Onboard 4G, 1 x 260-pin DDR4 SODIMM, up to 16G Total 20G	1 x 204-pin DDR3L SODIMM, up to 8G	2 x 260-pin DDR4 SODIMM, up to 32G
Display	Size	21.5"			
	Resolution	1920 x 1080			
	Brightness	250cd/m2			
	Contrast	1000:1			
	Touch	Industrial projective capacitive touch, support multi-touch			
	VGA	1 x DB15			
	DVI	\		1 x DVI-D	
HDMI	1 x HDMI				
Ethernet	Controller	LAN1: Intel® i211AT, supports Wake-On-Lan		LAN2: intel® i211AT	
	Interface	2 x RJ45			
	Optional	4 x Gb LAN RJ45		4/6 x Gb LAN RJ45	
Storage	HDD/SSD	1 x 2.5" HDD/SSD		1/2 x 2.5" HDD/SSD	
	mSATA	1			
I/O	USB	1xUSB 3.0 and 3/5xUSB 2.0	2xUSB 3.0 and 2/4xUSB 2.0	1xUSB 3.0 and 7xUSB 2.0	4xUSB 3.0 and 4xUSB 2.0
	Serial Port	2/4 x DB9, RS232/422/485 mode selection; RS232 by default		4/5/6 x DB9, RS232/422/485 mode selection; RS232 by default	
	GPIO	4 x DI/O (using 1 x 10 Phoenix terminal block)			
	Audio	1 x Line-out and 1 x Mic-in			
	PS/2	1 x PS/2 keyboard/mouse port			
Expansion	Mini PCIE	1, used for 4G card with SIM slot			
	mSATA	1, used for mSATA SSD or WiFi card			
Power	Input Voltage	9 ~ 30 VDC		9 ~ 36 VDC	
Watchdog Timer	Output	System reset			
	Interval	Programmable 1 ~ 255 sec/min			
Environment	Temperature	Operating: 0 ~45°C (with HDD) -10 ~ 55°C (with SSD)		Storage: -30~65°C	
	Humidity	95% @ 40°C (non-condensing)			
	Vibration	Sine vibration: 5-15Hz/1.0mm amplitude; 15-200Hz/1.0g acceleration (SSD)			
	Shock	Anti-shock: 10G, half-sine, pulse width: 11ms Three-axis six-direction			
Mechanical	Dimensions	555mm (W) x 347mm (H)			
		76mm (D)	84mm (D)	78.3mm (D)	89.9mm (D)
	Weight	7kg	7.25kg	7.23kg	7.26kg
	Installation	Panel mount/VESA mount			
EMC&Safety		Meet CE, CCC			
OS Support		Windows 7/8/10, Linux			

Ordering Information

P/N	Model	Description
0010-115521	W21-01	21.5"/ECS-1837/J1900/4G/500G HDD/2LAN/4USB/4COM/8DIO/VGA/HDMI/PS2/Line-out/Mic-in/DC 9~30V/Adapter
0010-115531	W21-31	21.5"/ECS-1838/i3-6100U/4G/500G HDD/4LAN/6USB/2COM/8DIO/VGA/HDMI/PS2/Line-out/Mic-in/DC 9~30V/Adapter
0010-115541	W21-32	21.5"/ECS-1838/i5-6300U/4G/500G HDD/4LAN/6USB/2COM/8DIO/VGA/HDMI/PS2/Line-out/Mic-in/DC 9~30V/Adapter
0010-114031	W21-51	21.5"/ECS-1841/i3-6100TE/4G/500G HDD/2LAN/8USB/6COM/8DIO/VGA/DVI/HDMI/PS2/Line-out/Mic-in/DC 9~36V/Adapter

Industrial Fanless Panel PC Selection Guide

Size Option		12.1", 15", 17", 19" (Square screen)15.6", 18.5", 19", 21.5" (Widescreen)
Model		P12/P15/P17/P19/W15/W18/W19/W21
Image		 
System	Mainboard	ECS-1841(B)
	Chipset	Intel® H310
	CPU	Intel® Core™ 8th/9th Gen Coffee Lake i7/i5/i3
	RAM	2 x DDR4 260P SO-DIMM, support up to 64GB
I/O	LAN	2/4/6 x 10/100/1000Mbps RJ45
	USB	4 x USB 3.1, 4 x USB 2.0
	HDMI	1
	DVI	1
	VGA	1
	COM	4/5/6 x RS232/422/485
	PS/2	1
	Audio	Line-out, Mic-in
	GPIO	4DI/4DO
Expansion	Mini PCIE	1, with SIM slot
	mSATA	1, support SATA+USB
Storage	SATA	1/2 x 2.5" HDD/SSD
	M.2	1 x Key B 2280
Operation Environment		0 ~ 45°C (HDD) -5 ~ 55°C (SSD)
Storage Environment		-20~60°C
Power		DC 9 ~ 30V

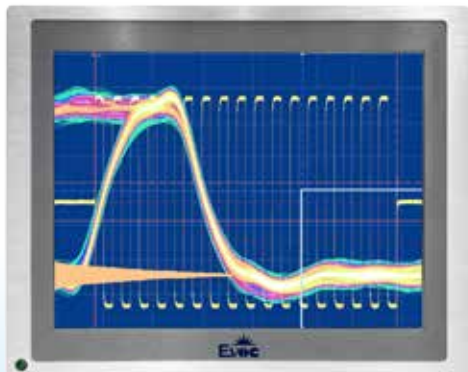
Industrial Fanless Panel PC Selection Guide

Size Option		12.1", 15", 17", 19" (Square screen)15.6", 18.5", 19", 21.5" (Widescreen)
Model		P12/P15/P17/P19/W15/W18/W19/W21
Image		 
System	Mainboard	ECS-1845
	Chipset	Intel® Q370
	CPU	Intel® Core™ 8th/9th Gen Coffee Lake i7/i5/i3
	RAM	2 x DDR4 260P SO-DIMM, support up to 64GB
I/O	LAN	2/4/6 x 10/100/1000Mbps RJ45
	USB	4 x USB 3.1, 4 x USB 2.0
	HDMI	1
	DVI	1
	VGA	1
	COM	4/5/6 x RS232/422/485
	PS/2	1
	Audio	Line-out, Mic-in
	GPIO	4DI/4DO
Expansion	Mini PCIE	1, with SIM slot
	mSATA	1, support SATA+USB
Storage	SATA	1/2 x 2.5" HDD/SSD
	M.2	1 x Key M 2280
Operation Environment		0 ~ 45°C (HDD) -5 ~ 55°C (SSD)
Storage Environment		-20~60°C
Power		DC 9 ~ 30V

PPC-1005 10.4" Low Power Consumption Panel PC

Brief Introduction

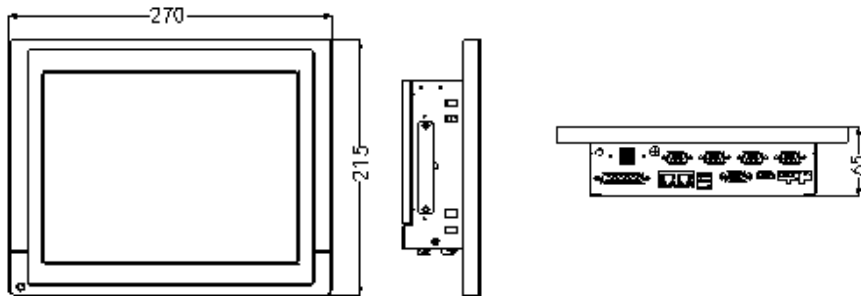
PPC-1005 is a fanless low power industrial panel PC, which contains Intel® Celeron™ J1900 processor. PPC-1005 support WIN7, WIN8, WIN10 and Linux operating system. Made of aluminum alloy, the PC features simple structure, excellent dust-proof, heat dissipation, anti-vibration and EMC performance. It also provides high reliability and strong environmental adaptability. PPC-1005 is tailored for the industrial automation industry.



Features

- Sealed and fanless design
- Cableless design, board-board connector
- Support 9~30V DC input
- Support -10~60°C operation
- High brightness 10.4" industrial display
- Support IP65 in front

Product size chart



(C0mpany : MM)

Specifications

Items		Specification
System	CPU	Intel® Celeron™ J1900 2.0GHz (up to 2.42GHz)
	Chipset	Intel® Bay Trail
	RAM	1 x 204-pin DDR3L SODIMM, up to 8G
Display	Size	10.4"
	Resolution	800 x 600
	Brightness	400cd/m2
	Contrast	700:1
	Touch	Industrial 5-wire resistive
	VGA	1 x DB15, up to 2560 x 1600 resolution
Ethernet	HDMI	1 x HDMI, up to 1920 x 1080 resolution
	Controller	LAN1: Intel® i211AT, supports Wake-On-Lan LAN2: intel® i211AT
	Interface	2 x RJ45
I/O	mSATA	4 x Gb LAN RJ45
	USB	1 x USB 3.0 and 3 x USB 2.0
	Serial Port	2 x DB9, RS232/422/485 mode selection; RS232 by default 2 x DB9, RS232
Expansion	GPIO	4 x DI/O (using 1 x 10 Phoenix terminal block)
	Mini PCIe	1, used for WiFi/3G/4G card
	mSATA	1, used for mSATA SSD
Power	Input Voltage	9 ~ 30 VDC with 110 ~ 240 VAC adapter
Watchdog Timer	Output	System reset
	Interval	Programmable 1 ~ 255 sec/min
Environment	Temperature	Operating: 0 ~60°C (with HDD) -30 ~ 60°C (with industrial SSD only) Storage: -48~85°C
	Humidity	95% @ 40°C (non-condensing)
	Vibration	Sine vibration: 5-17Hz/1.0mm amplitude; 17-200Hz/1.0g acceleration (SSD)
	Shock	Anti-shock: 10G, half-sine, pulse width: 11ms Three-axis six-direction
Mechanical	Dimensions (WxHxD)	270(W) x 72(H) x 215(D) mm (10.6"x 2.8"x 8.5")
	Weight	2.55kg (5.62 lbs)
	Installation	Panel mount/VESA mount
EMC&Safety		Meet CE, CCC
OS Support		Windows 7/8/10, Linux

Ordering Information

P/N	Model	Description
0010-086901	PPC-1005-11	10.4"/800x600/Resistive touch/J1900/4G DDR3L/64G SSD/VGA/HDMI/2LAN/4USB/4COM/16ch GPIO/DC 9~30V

D15 15" Aluminum-Alloy Industrial Panel Monitor

Brief Introduction

D15 series is a true-flat square industrial monitor. It support VGA, DVI and HDMI display connector with OSD function. Industrial 5-wire resistive touch is supported. And it can support both panel mount, wall mount and VESA mount installation.

Made of aluminum alloy, the monitor features simple structure, excellent dust-proof, heat dissipation, anti-vibration and EMC performance. It also provides high reliability and strong environmental adaptability.

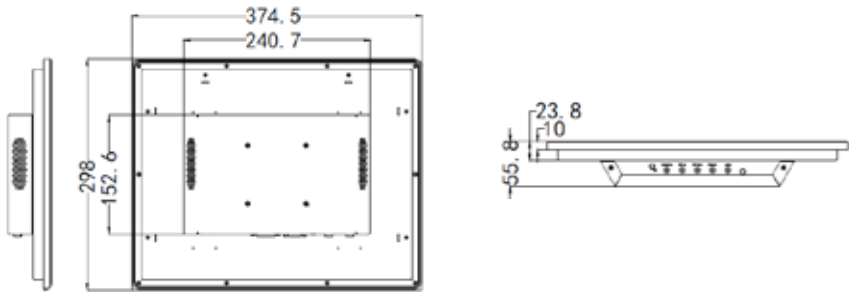
D15 is tailored for the industrial automation, machine automation, surveillanc, CNC, MES and etc.



Features

- Elegant design, rugged and robust
- 15" industrial grade LCD panel
- Support VGA/DVI/HDMI
- Support OSD function
- Support IP65 in front

Product size chart



(C0mpany : MM)

Specifications

Items	Specification	
Display	Size	15" 4:3
	Resolution	1024 x 768
	RAM	300 cd/m2
	Contrast Ratio	600:1
Touch	Industrial 5-wire resistive touch	
IP Grade	IP65 in front	
Connector	1 x VGA 1 x DVI-I 1 x HDMI 1 x Line-in 1 x USB 2.0 Type B	
Speaker	2 x 8Ω 3W	
OSD	Brightness, Contrast, Auto, Setup, Reset	
Mechanical	Anti-vibration: 5-15Hz/1.0mm amplitude; 15-200Hz/1.0g acceleration Anti-shock: 15G, half-sine, pulse width: 11ms	
EMC	Meet EN55032, EN55035, EN61000-3-2, EN61000-3-3	
Safety	Meet EN60950-1	
Reliability	MTBF ≥ 50,000h MTTR ≤ 0.5h	
Temperature	Operation	0 ~55°C
	Storage	-20 ~ 60°C
	Humidity	95% @ 40°C (non-condensing)
Dimention	374.5mm (W) x 298mm (H) x 55.8mm (D)	
Weight	4kg	
Power	DC 12V with AC 220V adapter	

Ordering Information

P/N	Model	Description
0010-118061	D15-01	15"/1024 x 768/5-wire resistive touch/OSD/VGA/DVI/HDMI/IP65/Adapter

D17 17" Aluminum-Alloy Industrial Panel Monitor

Brief Introduction

D17 series is a true-flat square industrial monitor. It support VGA, DVI and HDMI display connector with OSD function. Industrial 5-wire resistive touch is supported. And it can support both panel mount, wall mount and VESA mount installation.

Made of aluminum alloy, the monitor features simple structure, excellent dust-proof, heat dissipation, anti-vibration and EMC performance. It also provides high reliability and strong environmental adaptability.

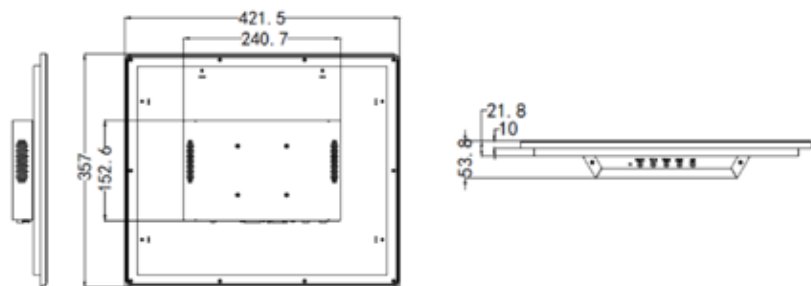
D17 is tailored for the industrial automation, machine automation, surveillanc, CNC, MES and etc.



Features

- Elegant design, rugged and robust
- 15" industrial grade LCD panel
- Support VGA/DVI/HDMI
- Support OSD function
- Support IP65 in front

Product size chart



(C0mpany : MM)

Specifications

Items	Specification	
Display	Size	17" 5:4
	Resolution	1280 x 1024
	RAM	250 cd/m2
	Contrast Ratio	1000:1
Touch	Industrial 5-wire resistive touch	
IP Grade	IP65 in front	
Connector	1 x VGA 1 x DVI-I 1 x HDMI 1 x Line-in 1 x USB 2.0 Type B	
Speaker	2 x 8Ω 3W	
OSD	Brightness, Contrast, Auto, Setup, Reset	
Mechanical	Anti-vibration: 5-15Hz/1.0mm amplitude; 15-200Hz/1.0g acceleration Anti-shock: 15G, half-sine, pulse width: 11ms	
EMC	Meet EN55032, EN55035, EN61000-3-2, EN61000-3-3	
Safety	Meet EN60950-1	
Reliability	MTBF ≥ 50,000h MTTR ≤ 0.5h	
Temperature	Operation	0 ~55℃
	Storage	-20 ~ 60℃
	Humidity	95% @ 40℃ (non-condensing)
Dimention	421.5mm (W) x 357mm (H) x 53.8mm (D)	
Weight	4.85kg	
Power	DC 12V with AC 220V adapter	

Ordering Information

P/N	Model	Description
0010-118071	D17-01	17"/1280 x 1024/5-wire resistive touch/OSD/VGA/DVI/HDMI/IP65/Adapter

Industrial Rackmount PC

Model	IPC-710	IPC-810E	IPC-820	IPC-8206E	IPC-860
Picture					
Form Factor	4U 19" Rack mount			2U 19" Rack mount	4U 19" Rack mount
Motherboard	EPE/EC0/EC9/EC7/ECS			EPE/EC9/EC7	EPE/EC0/SVE
Backplane	13-slots EPE backplane			4-slots EPE backplane	13-slots EPE backplane
Front I/O	2 x USB 2.0 ATX switch, Reset switch, Power/HDD indicator			2 x USB 2.0 ATX switch, Reset switch, Power/HDD indicator	2 x USB 2.0 ATX switch, Reset switch, Power/HDD indicator
Storage	1 x 5.25" DVD-ROM bay 2 x 3.5" HDD bay (Anti-vibration) 1 x 3.5" HDD bay			1 x 5.25" DVD-ROM bay 1 x 3.5" HDD bay	1 x slim DVD-ROM bay 4 x 3.5"HDD bay (drawable) or 2 x 3.5" HDD bay (drawable, anti-vibration)
Operation Environment	0 ~ 50°C, 5%~90% (Non-condensing)			0 ~ 50°C, 5%~90% (Non-condensing)	EPE/EC0 MB: 0 ~ 50°C, 5%~90% (Non-condensing) SVE MB: 0 ~ 40°C, 5%~90% (Non-condensing)
Storage Environment	-20 ~ 60°C, 5%~90% (Non-condensing)			-20 ~ 60°C, 5%~90% (Non-condensing)	-20 ~ 60°C, 5%~90% (Non-condensing)
Power Supply	PS2 ATX Power Supply			PS2 ATX Power Supply	PS2 ATX Power Supply Optional redundant 1+1 PSU
Dimension (W x H x D)	482 x 177 x 470.4 mm			482 x 88.6 x 452 mm	440 x 177 x 552 mm

Industrial Rackmount PC

Model	IPC-520S	IPC-620H-H110
Picture		
Installation	Wall mount/Desktop	
Motherboard	EC7-1821, EC7-1823	ECS-1839
Storage	1 x 2.5"HDD/SSD bay (Anti-vibration)	1 x 2.5"HDD/SSD bay (Anti-vibration) 1 x slim DVD-ROM bay
I/O	2 x LAN 4 x Serial port 6 x USB 16ch GPIO VGA+HDMI Mic-in, Line-out	2 x LAN 6 ~ 10 x Serial port 10 x USB 8ch GPIO 1 x LPT VGA+HDMI+DVI-D Mic-in, Line-in, Line-out 1 x TPM
Expansion	1 x PCIe16 signal support 1 x PCIe16 or 2 x PCIe8 or 1 x PCIe8/1 x PCI or 2 x PCI	1 x PCIe16 1 x PCIe4 2 x PCI
Operation Environment	0 ~ 50°C 5%~90% (Non-condensing)	0 ~ 50°C 5%~90% (Non-condensing)
Storage Environment	-20 ~ 60°C 5%~90% (Non-condensing)	-20 ~ 60°C 5%~90% (Non-condensing)
Power Supply	Mini ATX Power Supply	Mini ATX Power Supply
Dimension (W x H x D)	250 x 88.1 x 210 mm	280 x 165x 238 mm

IPC-710 4U 19" Rackmount Industrial Computer

Brief Introduction

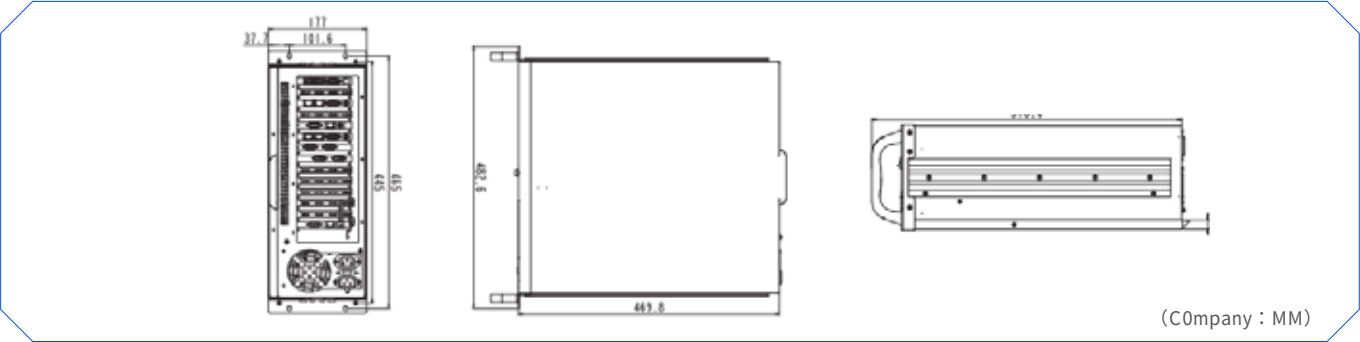
IPC-710 is a 4U rack-mount chassis, which supports the complete range of full-size boards and industrial motherboards of our company, such as FSC, EPI, EPE, ECS, EC9 and EC0, etc. With built-in high speed fan, the product features excellent heat dissipation as well as excellent anti-vibration and EMC performance. The product adopts reasonable architecture, advanced design and sheet metal front panel. The main body of the PC is shaped with high-quality steel sheet. The product also deploys dual binding strips structure, which can effectively fix the centre-of-gravity position. IPC-710 can be used in a wide range of fields, such as communication, networking, banking, electric power, transportation, industrial automation, etc.



Features

- High cost-effective
- Support EVOC EPE/EC0/EC9/EC7/ ECS motherboard
- Support Industrial ATX PS/2 PSU
- Support 1x5.25" CD-ROM and 3x3.5"
- Support rear USB 2.0 ports
- Easy to replace fan filter

Product size chart



Specifications

Items		Specification
Function	CPU	According to different motherboard
	Chipset	
	Memory	
	Display	
	LAN	
	Audio	
Performance	Storage	1 x 5.25" CD-ROM bay 2 x 3.5" HDD bay (Anti-vibration) 1 x 3.5" HDD bay
	Expansion	Motherboard support: EPE (PICMG 1.3), EC0 (ATX), EC9 (Micro-ATX), EC7 (Mini-ITX), ECS SBC Backplane support: Up to 13-slots EPE backplan Power Supply: Support PS/2 ATX/AT PSU
	Front I/O	2 x USB 2.0 ATX switch, Reset switch, Power/HDD LED indicator
	Dimensions(W x H x D)	482 x 177 x 470.4 mm
Performance	Weight	About 11.35kg
	Color	Industrial grey
	Temperature	Operating:0 ~ 50°C Storage:-20 ~ 60°C
	Humidity	5%~90% (Non-condensing)
	Reliability	MTBF ≥ 50000h MTTR ≤ 0.5h
	Mechanical	Anti-vibration: 5-17Hz/1.0mm amplitude 17-200Hz/1.0g acceleration Anti-shock: 10g acceleration, 11ms duration Noise: ≤50dB

Optional Motherboards

Model	Form Factor	Chipset	DIMMs	SATA	LAN	USB	COM	PCIe	PCI
EC0-1820	ATX	H310	2	4	2	10	10	2	5
EC0-1818-C236	ATX	C236	4	4	2	14	6	5	2
EC0-1818(B)	ATX	H110	2	4	2	10	10	4(2)	3(5)
EC0-1817	ATX	Q87/H81	4/2	6/4	2	10	10	3	4
EC0-1816	ATX	B65/H61	2	4	2	12/10	10	3/2	4/5

Ordering Information

P/N	Model	Description
0020-062081	IPC-710 Barebone	4U 19" Rackmount barebone/EC0-1816V2NA(C)-6COM/ATX 250W PSU/System fan/CPU cooler
0020-062091	IPC-710 Barebone	4U 19" Rackmount barebone/EC0-1817V2NA-H81-6COM/ATX 250W PSU/System fan/CPU cooler

IPC-810E 4U 19" Rackmount Industrial Computer

Brief Introduction

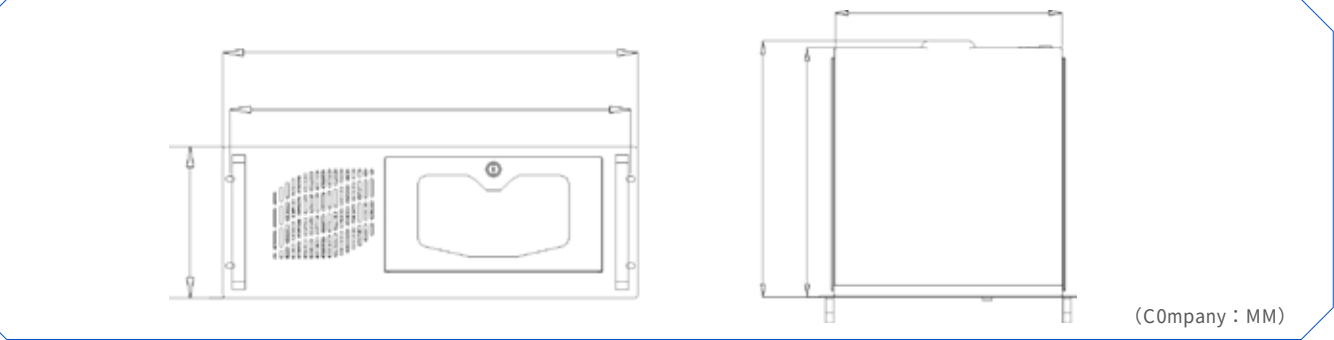
IPC-810E is a 4U rack-mount chassis built by high quality steel plate and supports the complete range of full-size boards and industrial motherboards of our company, such as EPE, EC9 and EC0, etc. As a universal 4U rack-mount chassis, it can be widely applied in the fields such as industrial control, petroleum, petrochemical and video surveillance, etc.



Features

- High quality steel plate
- Support EVOC EPE/EC0/EC9 motherboard
- Support Industrial ATX PS/2 PSU
- Support 1x5.25" CD-ROM and 3x3.5" HDD
- Support rear USB 2.0 ports
- Easy to replace fan filter

Product size chart



Specifications

Items		Specification
Function	CPU	According to different motherboard
	Chipset	
	Memory	
	Display	
	LAN	
	Audio	
Function	Storage	1 x 5.25" CD-ROM bay 2 x 3.5" HDD bay (Anti-vibration) 1 x 3.5" HDD bay
	Expansion	Motherboard support: EPE (PICMG 1.3), EC0 (ATX), EC9 (Micro-ATX), EC7 (Mini-ITX), ECS SBC Backplane support: Up to 13-slots EPE backplan Power Supply: Support PS/2 ATX/AT PSU
	Front I/O	2 x USB 2.0 ATX switch, Reset switch, Power/HDD LED indicator
Performance	Dimensions(W x H x D)	482 x 177 x 470.4 mm
	Weight	About 15.3kg
	Color	Industrial grey
	Temperature	Operating:0 ~ 50°C Storage:-20 ~ 60°C
	Humidity	5%~90% (Non-condensing)
	Reliability	MTBF ≥ 50000h MTTR ≤ 0.5h
	Mechanical	Anti-vibration: 5-17Hz/1.0mm amplitude 17-200Hz/1.0g acceleration Anti-shock: 10g acceleration, 11ms duration Noise: ≤50dB

Optional Motherboards

Model	Form Factor	Chipset	DIMMs	SATA	LAN	USB	COM	PCIe	PCI
SVE-1802	ATX	C612	8	10	2	7	1	5	1
EC0-1820	ATX	H310	2	4	2	10	10	2	5
EC0-1818-C236	ATX	C236	4	4	2	14	6	5	2
EC0-1818(B)	ATX	H110	2	4	2	10	10	4(2)	3(5)
EC0-1817	ATX	Q87/H81	4/2	6/4	2	10	10	3	4
EC0-1816	ATX	B65/H61	2	4	2	12/10	10	3/2	4/5
EPE-1816	PICMG 1.3	H110	2	4	2	10	2(6)	Optional	Optional

Ordering Information

P/N	Model	Description
0010-100481	IPC-810E	4U 19" Rackmount IPC/SVE-1802/E5-1650 V3/8G DDR4/2 x 500G HDD/DVD-ROM/ATX 350W/2LAN/6USB/COM/VGA/2 x PCIe16/3 x PCIe8/PCI
0010-096901	IPC-810E	4U 19" Rackmount IPC/EPE-1816/i5-6500/4G DDR4/1 x 500G HDD/ATX 300W/2LAN/4USB/2COM/PS2/Audio/VGA/DP/EPE-6112E5 (1 x PCIe16, 4 x PCIe4, 6 x PCI)
0010-121321	IPC-810E	4U 19" Rackmount IPC/EC0-1820/G4900/4G DDR4/1TB HDD /ATX 250W/2LAN/6USB/6COM/VGA/DVI-D/HDMI/DP/PS2/Audio/1 x PCIe16/1 x PCIe4/5 x PCI
0010-107141	IPC-810E	4U 19" Rackmount IPC/EC0-1818(B)/i3-6100/4G DDR4/1 x 500G HDD /ATX 250W/2LAN/6USB/6COM/VGA/HDMI/PS2/LPT/Audio/1 x PCIe16/3 x PCIe1/3 x PCI
0010-098901	IPC-810E	4U 19" Rackmount IPC/EC0-1817V2NA-H81-6COM/G3420/2G DDR3/1 x 500G HDD /ATX 250W/2LAN/6USB/6COM/VGA/DVI-D/PS2/LPT/Audio/1 x PCIe16/2 x PCIe1/4 x PCI
0010-081051	IPC-810E	4U 19" Rackmount IPC/EC0-1816V2NA(C)- 6COM/i3-2120/2G DDR3/1 x 500G HDD /ATX 250W/DVD-ROM/2LAN/6USB/6COM/VGA/DVI-D/PS2/LPT/Audio/1 x PCIe16/1 x PCIe1/5 x PCI

IPC-820 4U 19" Rackmount Industrial Computer

Brief Introduction

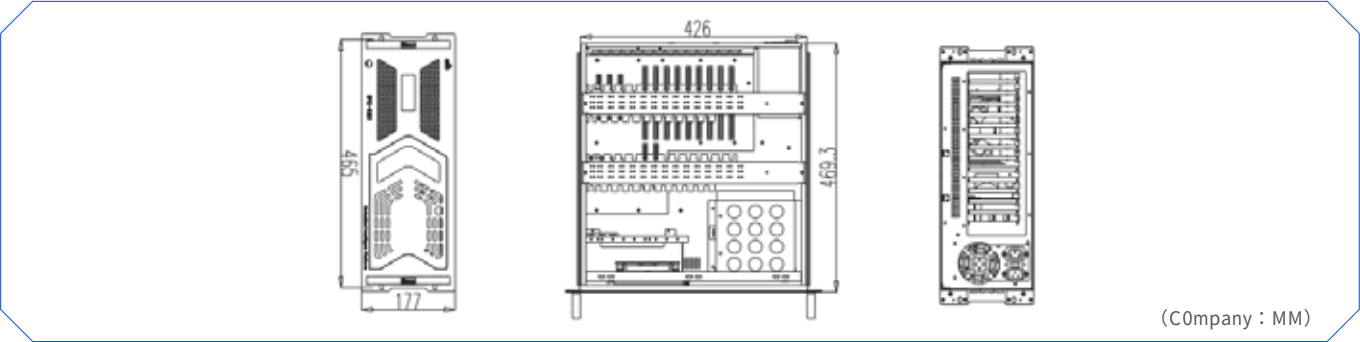
IPC-820 is a 4U rack-mount chassis built by high quality steel plate and supports the complete range of full-size boards and industrial motherboards of our company, such as EPE, EC9 and EC0, etc. EC0, etc. With built-in high speed fan, the product features excellent heat dissipation as well as excellent anti-vibration and EMC performance. As a universal 4U rack-mount chassis, it can be widely applied in the fields such as industrial control, petroleum, petrochemical and video surveillance, etc.



Features

- High quality steel plate
- Support EVOC EPE/EC0/EC9 motherboard
- Support Industrial ATX PS/2 PSU, optional redundant PSU
- Support 1x5.25" CD-ROM and 3x3.5" HDD
- Support rear USB 2.0 ports
- Easy to replace fan filter
- Support IPC operation real-time monitoring system

Product size chart



Specifications

Items		Specification
Function	CPU	According to different motherboard
	Chipset	
	Memory	
	Display	
	LAN	
	Audio	
	Storage	1 x 5.25" CD-ROM bay 2 x 3.5" HDD bay (Anti-vibration) 1 x 3.5" HDD bay
Performance	Expansion	Motherboard support: EPE (PICMG 1.3), EC0 (ATX), EC9 (Micro-ATX), EC7 (Mini-ITX), ECS SBC Backplane support: Up to 13-slots EPE backplan Power Supply: Support PS/2 ATX/AT PSU, optional redundant 1+1 PSU
	Front I/O	2 x USB 2.0 ATX switch, Reset switch, Power/HDD LED indicator
	Dimensions(W x H x D)	482 x 177 x 470.4 mm
	Weight	About 15.3kg
	Color	Black
	Temperature	Operating:0 ~ 50°C Storage:-20 ~ 60°C
	Humidity	5%~90% (Non-condensing)
	Reliability	MTBF ≥ 50000h MTTR ≤ 0.5h
	Mechanical	Anti-vibration: 5-17Hz/1.0mm amplitude 17-200Hz/1.0g acceleration Anti-shock: 10g acceleration, 11ms duration Noise: ≤50dB

Optional Motherboards

Model	Form Factor	Chipset	DIMMs	SATA	LAN	USB	COM	PCIe	PCI
EC0-1820	ATX	H310	2	4	2	10	10	2	5
EC0-1818-C236	ATX	C236	4	4	2	14	6	5	2
EC0-1818(B)	ATX	H110	2	4	2	10	10	4(2)	3(5)
EC0-1817	ATX	Q87/H81	4/2	6/4	2	10	10	3	4
EC0-1816	ATX	B65/H61	2	4	2	12/10	10	3/2	4/5
EPE-1816	PICMG 1.3	H110	2	4	2	10	2(6)	Optional	Optional

Ordering Information

P/N	Model	Description
0010-107161	IPC-820	4U 19" Rackmount IPC/EC0-1818(B)/i7-6700/4G DDR4/500G HDD/ATX 300W/2LAN/6USB/2COM/VGA/HDMI/PS2/Audio/LPT/1 x PCIe16/3 x PCIe1(x4 connector)/3 x PCI
0010-087451	IPC-820	4U 19" Rackmount IPC/EC0-1817-Q87/G1820/2G DDR3/500G HDD/DVD-ROM/ATX 250W/2LAN/4USB/6COM/VGA/DVI-D/PS2/Audio/LPT/1 x PCIe16, 2 x PCIe1(x4 connector), 4 x PCI
0010-085761	IPC-820	4U 19" Rackmount IPC/EC0-1816/i5-2400/4G DDR4/500G HDD/DVD-ROM/ATX 400W+400W/2LAN/6USB/6COM/VGA/DVI-D/PS2/Audio/LPT/1 x PCIe16/1 x PCIe1/5 x PCI
0010-096931	IPC-820	4U 19" Rackmount IPC/EPE-1816/i7-6700/4G DDR4/1TB HDD /ATX 300W/2LAN/4USB/2COM/VGA/DP/PS2/Audio/EPE-6113E2/1 x PCIe16/1 x PCIe1(x4 connector)/10 x PCI

IPC-860 4U 19" Rackmount Industrial Computer

Brief Introduction

IPC-860 is a 4U rack-mount chassis built by high quality steel plate and aluminum-alloy front panel for excellent strength and stiffness. It supports up to four 3.5" drawable HDD module and optional industrial redundant power supply. The PC supports EVOC EPE/ATX motherboard and EATX server motherboards. Inside the door cover, the LCM module with touch screen support power-off, information display, status monitoring, process management, log management and other functions.

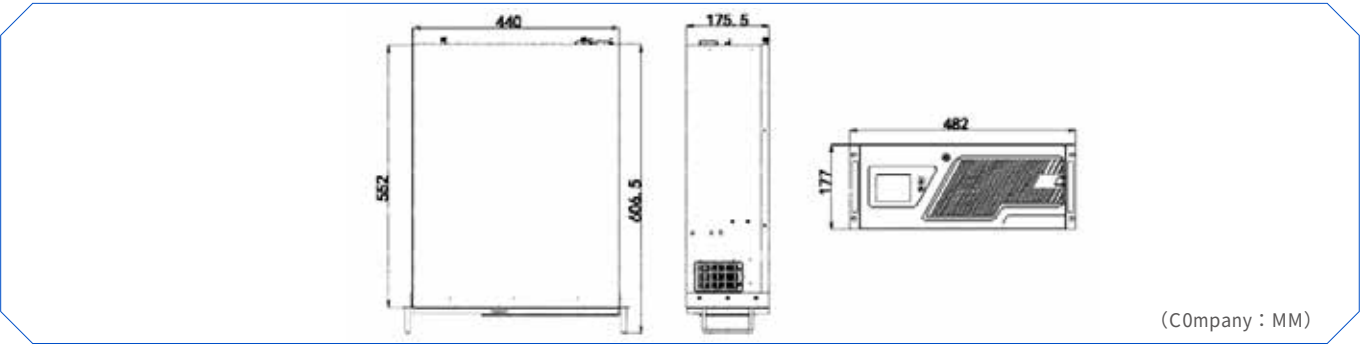
The product can be widely used in bank security monitoring system, intelligent building management system, integrated security management system, integrated traffic management system, machine vision, as well as recording monitoring systems in work station, insurance, securities and other fields.



Features

- High strength structure
- Support EVOC EPE/EC0/EATX motherboard
- Support four 3.5" drawable HDD bay
- Support industrial redundant PSU
- Support high-power system fans
- Easy to replace fan filter
- Support multi function LCM module

Product size chart



Specifications

Items		Specification
Function	CPU	According to different motherboard
	Chipset	
	Memory	
	Display	
	LAN	
	Audio	
Function	Storage	1 x slim DVD-ROM bay 4 x 3.5" HDD bay (drawable) or 2 x 3.5" HDD bay (drawable, anti-vibration)
	Expansion	Motherboard support: EPE (PICMG 1.3), EC0 (ATX), SVE (EATX), Backplane support: Up to 13-slots EPE backplan Power Supply: Support PS/2 ATX/AT PSU, optional redundant 1+1 PSU
	Front I/O	2 x USB 2.0 ATX switch, Reset switch, Power/HDD LED indicator
Performance	Dimensions(W x H x D)	440 x 177 x 552 mm
	Weight	About 20kg
	Color	Black
	Temperature	Operating: When SVE motherboard used: 0 ~ 40°C When EPE/EC0 motherboard used: 0 ~ 50°C Storage: -20 ~ 60°C
	Humidity	5%~90% (Non-condensing)
	Reliability	MTBF ≥ 50000h MTTR ≤ 0.5h
	Mechanical	Anti-vibration: When SVE motherboard is used: (power-off status) 5-17Hz/1.0mm amplitude 17-200Hz/1.0g acceleration When EPE/EC0 motherboard is used: (power-on status) 5-17Hz/1.0mm amplitude 17-200Hz/1.0g acceleration Anti-shock: 10g acceleration, 11ms duration Noise: When SVE motherboard is used: ≤70dB When EPE/EC0 motherboard is used: ≤50dB

Optional Motherboards

Model	Form Factor	Chipset	DIMMs	SATA	LAN	USB	COM	PCIe	PCI
SVE-2901	EATX	C612	16	9	2	7	4	6	0
EC0-1818-C236	ATX	C236	4	4	2	14	6	5	2
EC0-1819	ATX	C236	4	6	2	10	1	4	1
EPE-1815	PICMG 1.3	H61	2	4	2	10	2(6)	Optional	Optional

Ordering Information

P/N	Model	Description
0010-084061	IPC-860	4U 19" Rackmount IPC/SVE-2901/E5-2620V3/8G DDR4/500G HDD/DVD-ROM/LSI 3008 SAS3 Raid/700W+700W/2LAN/6USB/1COM/VGA/1 x PCIe16/1 x PCIe8 If two CPU used, support 2x PCIe16, 4 x PCIe8
0010-109201	IPC-860	4U 19" Rackmount IPC/SVE-1802/E5-2620V3/8G DDR4/1TB HDD/ATX 600W/2LAN/6USB/1COM/VGA/2 x PCIe16/3 x PCIe8/1 x PCI
0010-111141	IPC-860	4U 19" Rackmount IPC/EC0-1819/E3-1225V6/4G DDR4/1TB HDD/ATX 350W/2LAN/6USB/HDMI/DVI-D/Audio/3 x PCIe16(16/NA/16 or 16/8/8)/1 x PCIe1(x4 connector), 1 x PCI
0010-111941	IPC-860	4U 19" Rackmount IPC/EC0-1818-C236/E3-1225V3/8G DDR4/1TB HDD/ATX 350W/2LAN/6USB/2COM/VGA/DVI-D/HDMI/DP/Audio/2 x PCIe16/3 x PCIe4(x8 connector)/2 x PCI
0010-078411	IPC-860	4U 19" Rackmount IPC/EPE-1815/i7-2600/4G DDR4/500G HDD/DVD-ROM/ATX 350W/2LAN/4USB/1COM/VGA/PS2/Audio/LPT/EPE-6112E7/4 x PCIe4/3 x PCIe1/4 x PCI

IPC-8206E 2U 19" Rackmount Industrial Computer

Brief Introduction

IPC-8206E is a 2U rack mount chassis, which is compatible with EVOC EPE, EC7 and EC9 series full-size cards and industrial motherboards. The product has built-in high speed intake fans, and has excellent heat dissipation, anti-vibration and EMC performance.

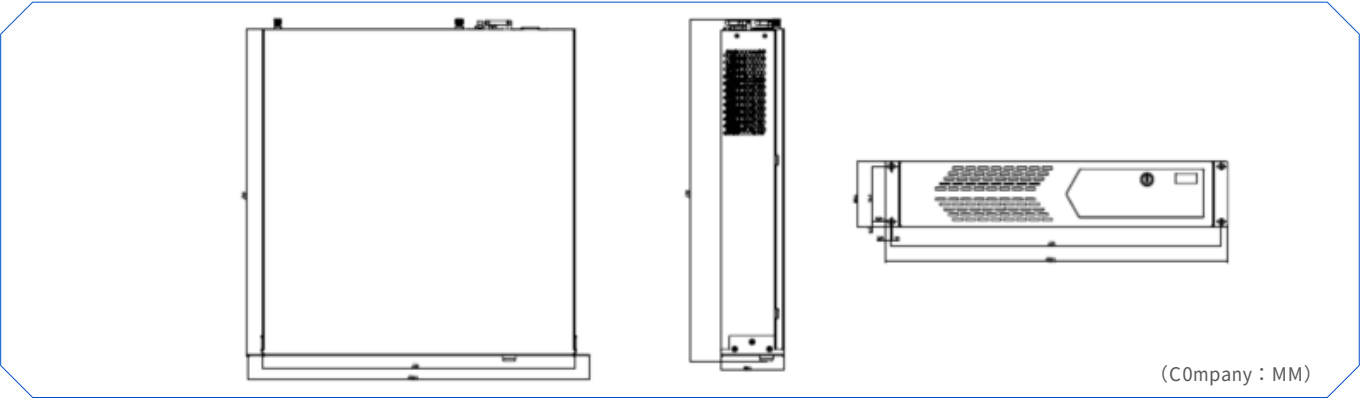
The PC adopts double-layer Al-alloy framework structure, modular design, shock-absorption, rugged installation design, IP protection design, EMC design and outer appearance ID design. The product has an elegant appearance, and only a few screws can be seen from outside of the chassis. IPC-8206E can be widely used in industrial control, petrol & petro-chemical industry, military industry, electric power, tele-communication, and etc.



Features

- High quality steel plate
- Support EVOC EPE/EC9 motherboard
- Support Industrial ATX PS/2 PSU
- Optional redundant PSU
- Support 1x5.25" CD-ROM and 1x 3.5" HDD
- Easy to replace fan filter

Product size chart



Specifications

Items		Specification
Function	CPU	According to different motherboard
	Chipset	
	Memory	
	Display	
	LAN	
	Audio	
Function	Storage	1 x 5.25" CD-ROM bay 1 x 3.5" HDD bay
	Expansion	Motherboard support: EPE (PICMG 1.3), EC9 (Micro-ATX), EC7 (Mini-ITX) Backplane support: Up to 4-slots EPE backplan Power Supply: Support PS/2 ATX/AT PSU
	Front I/O	2 x USB 2.0 ATX switch, Reset switch, Power/HDD LED indicator
Performance	Dimensions(W x H x D)	482.6 x 88.6 x 452 mm
	Weight	About 11.2kg
	Color	Black
	Temperature	Operating:0 ~ 50°C Storage:-20 ~ 60°C
	Humidity	5%~90% (Non-condensing)
	Reliability	MTBF ≥ 50000h MTTR ≤ 0.5h
	Mechanical	Anti-vibration:5-19Hz/1.0mm amplitude 19-200Hz/1.0g acceleration Anti-shock: 10g acceleration, 11ms duration Noise: ≤50dB

Ordering Information

P/N	Model	Description
0010-054951	IPC-8206E	2U 19" Rackmount IPC/EC9-1818/G2120/2G DDR3/500G HDD/DVD-ROM/ATX 250W/2LAN/14USB/4COM/2VGA/PS2/LPT/No expansion slot
0010-048471	IPC-8206E	2U 19" Rackmount IPC/EPE-1815/i3-2120/2G DDR3/500G HDD/DVD-ROM/ATX 250W/2LAN/4USB/2COM/VGA/PS2/Audio/LPT/EPE-6105E1/1 x PCIEx16/3 x PCI

IPC-520S Compact Embedded Industrial Computer

Brief Introduction

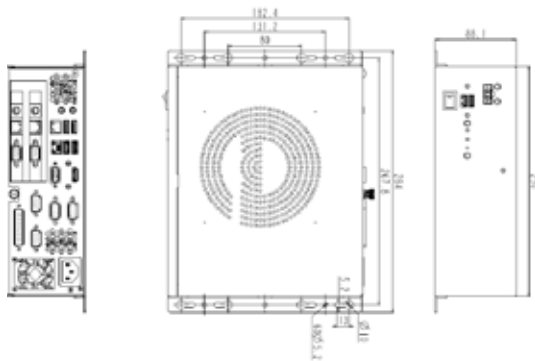
IPC-520S is a compact embedded industrial computer, support EVOC EC7 Mini-ITX motherboard. In Intel® C236 and H110 platform, it can support 6th/7th Gen LGA1151 Core™/Pentium™/Celeron™ processor and reach up to 128GFLOP/S speed. IPC-520S support full-height, half length add-on card. Its high quality steel structure enable good thermal and anti-vibration performance. IPC-520S can be widely used in industrial manufacturing, machine vision, ATM, KIOSK and security checking fields.



Features

- Compact size
- Support EVOC EC7 motherboard
- Support H110/C236/BayTrail platform
- Multi expansion option
- Optional PoE for machine vision
- Internal vertical USB 3.0 for encryption device

Product size chart



(Company : MM)

Specifications

Items	Specification	
Chipset	Intel® H110/ C236	Intel® BayTrail
CPU	Intel® 6th/7th Gen Core™ i7/i5/i3, Pentium™, Celeron™, C236 support Xeon™ E3	Intel® Celeron™ J1900
Memory	1 x 288PIN DDR4 DIMM, up to 16G	1 x 204PIN DDR3L SODIMM, up to 8G
Display	VGA+HDMI	
LAN	2 x 10/100/1000Mbps RJ45, optional PoE	
Audio	1 x Mic-in, 1 x Line-out	
Storage	1 x 2.5"HDD/SSD bay (Anti-vibration)	
Mechanical	Anti-vibration: 5-15Hz/1.0mm amplitude; 15-200Hz/1.0g acceleration Anti-shock: 15G, half-sine, pulse width: 11ms	
I/O	Rear: 2 x USB 3.0, 2 x USB 2.0 4 x Serial ports, COM1/COM2 support RS232/422/485 1 x 16ch GPIO with DB44 connector 1 x AC power connector Front: 2 x USB 2.0 Power switch, Reset, LED indicator 1 x remote power on/off phoenix block Internal: 1 x USB 3.0 PIN header 1 x vertical USB 3.0 2 x Serial ports PIN header	Rear: 1 x USB 3.0, 3 x USB 2.0 4 x Serial ports, COM1/COM2 support RS232/422/485 1 x 16ch GPIO with DB44 connector 1 x AC power connector Front: 2 x USB 2.0 Power switch, Reset, LED indicator 1 x remote power on/off phoenix block Internal: 1 x USB 3.0 PIN header 1 x vertical USB 3.0 2 x Serial ports PIN header
Expansion	1 x PCIe16 signal inside, need riser card to enable Optional riser card: 1 x PCIe16 2 x PCIe8 2 x PCI 1 x PCIe8/1 x PCI	1 x PCIe1 signal inside, need riser card to enable Optional riser card: 1 x PCIe16 (x1 signal) 2 x PCI
Power Supply	Mini ATX power supply unit	
OS	Win7, Win8, Win10, Win7E, Linux	
Dimensions	250 x 88.1 x 210 mm (W x H x D)	
Weight	About 6.9kg	
Temperature	Operating:0 ~ 50℃ Storage:-20 ~ 60℃	
Humidity	5%~90% (Non-condensing)	
Reliability	MTBF ≥ 50000h MTTR ≤ 0.5h	
Mechanical	Anti-vibration:5-17Hz/1.0mm amplitude 17-200Hz/1.0g acceleration Anti-shock:10g acceleration, 11ms duration Noise:≤55dB	

Ordering Information

P/N	Model	Description
0010-114851	IPC-520S-01	EC7-1821-H110/i3-6100/4G DDR4/500G HDD/ATX 200W/2LAN/6COM/8USB/VGA/HDMI/16ch GPIO/Audio/1 x PCIe16 signal (Need riser card to enable)
0010-114861	IPC-520S-02	EC7-1821-H110/i5-6500/4G DDR4/1T HDD/ATX 200W/2LAN/6COM/8USB/VGA/HDMI/16ch GPIO/Audio/1 x PCIe16 signal (Need riser card to enable)
0010-114871	IPC-520S-03	EC7-1823/J1900/4G DDR3L/500G HDD/ATX 150W/2LAN/6COM/6USB/VGA/HDMI/16ch GPIO/Audio/1 x PCIe1 signal (Need riser card to enable)
0010-114881	IPC-520S-04	EC7-1821-C236/i7-6700/4G DDR4/500G HDD/ATX 200W/2LAN/6COM/8USB/VGA/HDMI/16ch GPIO/Audio/1 x PCIe16 signal (Need riser card to enable)
0060-005061	Riser Card	2 x PCI
0060-005051	Riser Card	1 x PCIe16
0090-005271	Riser Card	2 x PCIe8
0090-005281	Riser Card	1 x PCIe8, 1 x PCI
0090-005261	PoE Module	To enable PoE function for onboard 2 x LAN

IPC-620H-H110 Compact Embedded Industrial Computer

Brief Introduction

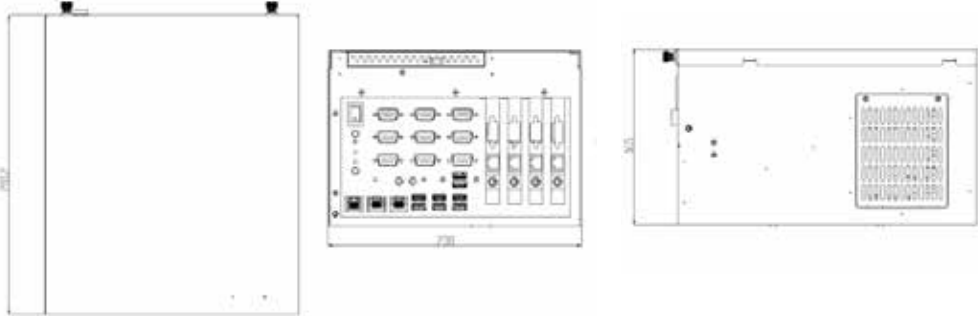
IPC-620H is a small-size compact wall mount PC. With strong expansibility, the complete PC is compatible with motherboards of multiple different platform models. The expansion slots on the motherboard can be used to directly expand full-height and half-size application cards, without the need for converter cable, so that excellent expansibility can be realized in a small form factor. The chassis adopts small form factor design, and can meet the requirement of installation in a small space. Shaped by metal sheet material, the PC has excellent heat dissipation and anti-vibration performance. This product can be widely used in IT communication, self-service terminals, industrial automation and vehicle inspection.



Features

- Compact size support desktop and wallmount
- Support Intel® 6th/7th Gen Core™ i7/i5/i3, Pentium™, Celeron™
- Support up to 32G DDR4
- Support VGA/DVI-D/HDMI and dual independent display
- Support up to 10 x USB/10 x COM
- Support PCIe16/PCIe4/2PCI

Product size chart



(Company : MM)

Specifications

Items	Specification
Chipset	Intel® H110
CPU	Intel® 6th/7th Gen Core™ i7/i5/i3, Pentium™, Celeron™
Memory	2 x 288PIN DDR4 DIMM, up to 32G
Display	Onboard VGA+HDMI, internal DVI-D PIN header
LAN	2 x 10/100/1000Mbps RJ45
Audio	1 x Mic-in, 1 x Line-in, 1 x Line-out
Storage	1 x 2.5"HDD/SSD bay (Anti-vibration) 1 x slim DVD-ROM bay, replaceable to 2nd 2.5" HDD/SSD
Mechanical	Anti-vibration: 5-15Hz/1.0mm amplitude; 15-200Hz/1.0g acceleration Anti-shock: 15G, half-sine, pulse width: 11ms
I/O	4 x USB 3.0, 4 x USB 2.0, internal 2 x USB 2.0 PIN header 6 x Serial ports, COM1/COM2 support RS232/422/485, up to 10 1 x LPT 1 x 8ch GPIO PIN header 1 x TPM PIN header
Expansion	1 x PCIe16 1 x PCIe4 2 x PCI Support up to 111mm(H) x 167 mm (L) add-on card
Power Supply	Mini ATX power supply unit
OS	Win7, Win8, Win10, Win7E, Linux
Dimensions (W x H x D)	280 x 165x 238 mm(W x H x D)
Weight	About 6.2kg
Temperature	Operating:0 ~ 50°C Storage:-20 ~ 60°C
Humidity	5%~90% (Non-condensing)
Reliability	MTBF ≥ 50000h MTTR ≤ 0.5h
Mechanical	Anti-vibration:5-17Hz/1.0mm amplitude 17-200Hz/1.0g acceleration Anti-shock:10g acceleration, 11ms duration Noise:≤55dB

Ordering Information

P/N	Model	Description
0020-062121	IPC-620H-H110 Barebone	Barebone/H110/No CPU/No RAM/No storage/ATX 300W/2LAN/2COM/8USB/VGA/HDMI/LPT/Audio/ 1 x PCIe16/1 x PCIe4/2 x PCI
0010-106041	IPC-620H-H110	IPC-620H-H110/G3900/4G DDR4/500G HDD/ATX 300W/2LAN/6COM/8USB/VGA/HDMI/LPT/Audio/ 1 x PCIe16/1 x PCIe4/2 x PCI
0010-106051	IPC-620H-H110	IPC-620H-H110/i3-6100/4G DDR4/500G HDD/ATX 300W/2LAN/6COM/8USB/VGA/HDMI/LPT/ Audio/ 1 x PCIe16/1 x PCIe4/2 x PCI
0010-106061	IPC-620H-H110	IPC-620H-H110/i5-6500/4G DDR4/1T HDD/ATX 300W/2LAN/6COM/8USB/VGA/HDMI/LPT/Audio/ 1 x PCIe16/1 x PCIe4/2 x PCI
0010-106071	IPC-620H-H110	IPC-620H-H110/i7-6700/8G DDR4/1T HDD/ATX 300W/2LAN/6COM/8USB/VGA/HDMI/LPT/Audio/ 1 x PCIe16/1 x PCIe4/2 x PCI

MEC-5071-S High Performance Embedded Industrial Computer

Brief Introduction

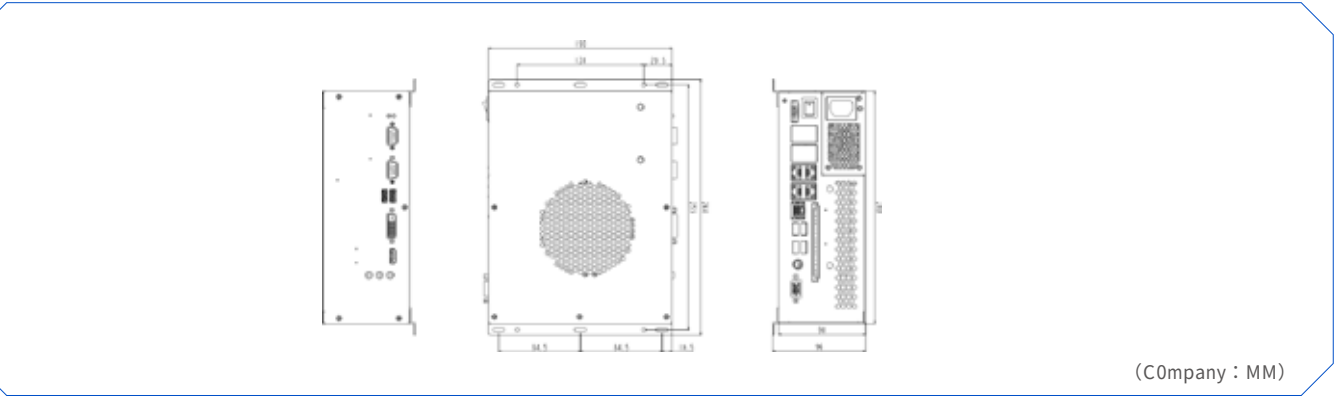
MEC-5071-S is a high performance embedded industrial computer for machine vision application. It supports Intel® 6th Gen Core™ i7/i5/i3 processor and 4 x independent PoE ports, reach speed of 4.0Gb/s. It also support 5 x GbE and 16 x isolated GPIO. It's ideal choice for automation and vision solution.



Features

- Support Intel® 6th/7th Gen Core™ i7/i5/i3 CPU
- Support up to 32GB RAM
- Support 9 x Gb LAN, 4 of them support PoE
- Support VGA/DVI/HDMI
- Support 16 x isolated GPIO
- Compact size, easy integration
- Support desktop and wallmount

Product size chart



Specifications

Items	Specification
Chipset	Intel® H110
CPU	Intel® 6th/7th Gen Core™ i7/i5/i3, Pentium™, Celeron™
Memory	2 x 260PIN DDR4 SODIMM, up to 32G
Display	VGA+DVI+HDMI
LAN	9 x 10/100/1000Mbps RJ45, optional 4 x PoE
Audio	1 x Mic-in, 1 x Line-in, 1 x Line-out
Storage	1 x 2.5"HDD/SSD bay 1 x mSATA
I/O	4 x USB 3.0, 2 x USB 2.0 2 x Serial ports, support RS232/422/485, RS232 by default 1 x 16ch GPIO isolated 1 x PS/2 KB/MS 1 x power switch for remote on/off
Expansion	1 x mSATA 1 x Mini PCIE with SIM card slot
Power Supply	AC 100-240V
OS	Win7, Win8, Win10, Win7E, Linux
Dimensions (W x H x D)	240 x 90 x 190 mm
Temperature	Operating:-5 ~ 45°C (HDD) -20 ~ 55°C (Industrial SSD) Storage:-40 ~ 70°C
Humidity	5%~90% (Non-condensing)
Reliability	MTBF ≥ 50000h MTTR ≤ 0.5h
Mechanical	Anti-vibration:5-17Hz/1.0mm amplitude 17-200Hz/1.0g acceleration Anti-shock:10g acceleration, 11ms duration Noise:≤55dB

Ordering Information

P/N	Model	Description
0010-092901	MEC-5071-S-01	Embedded PC/i5-6500/8G DDR4/128G SSD/VGA/DVI/HDMI/9LAN/2COM/6USB/Audio/PS2/16ch GPIO/mSATA/Mini PCIE/SIM/AC 220V
0010-092911	MEC-5071-S-02	Embedded PC/i3-6100/4G DDR4/500G HDD/VGA/DVI/HDMI/5LAN/4PoE/2COM/6USB/Audio/PS2/16ch GPIO/mSATA/Mini PCIE/SIM/AC 220V/

Industrial Motherboard

Model	EC0-1820	EC0-1818-C236	EC0-1818(C)	EC0-1818(B)	EC0-1817-Q87
Picture					
Form Factor	ATX	ATX	ATX	ATX	ATX
Chipset	Intel® H310	Intel® C236	Intel® H110	Intel® H110	Intel® Q87
Processor	Support LGA1151 8th Gen Intel® Core™ i7/i5/i3/ Pentium®/Celeron®	Support LGA1151 Xeon™ E3-1200 V5/ V6 6th/7th Gen Intel® Core™ i7/i5/i3/ Pentium®/Celeron®	Support LGA1151 6th/7th Gen Intel® Core™ i7/i5/i3/Pentium®/ Celeron®	Support LGA1151 6th/7th Gen Intel® Core™ i7/i5/i3/Pentium®/ Celeron®	tel® 4th Gen Intel® Core™ i7/i5/i3/ Pentium®/Celeron®
Memory	2 x 288 PIN DDR4 DIMM Up to 64GB	4 x 288 PIN DDR4 DIMM Up to 64GB	2 x 288 PIN DDR4 DIMM Up to 32GB	2 x 288 PIN DDR4 DIMM Up to 32GB	4 x 240 PIN DDR3 DIMM Up to 32GB
Storage	4 x SATA 3.0	4 x SATA 3.0	3 x SATA 3.0 1 x M.2 Key B	3 x SATA 3.0 1 x mSATA	6 x SATA 3.0 RAID 0/1/5/10
Display	VGA/DVI-D/HDMI/DP Support dual-display	VGA/DVI-D/HDMI/DP Support tri-display	VGA/HDMI/DVI-D Support dual-display	VGA/HDMI/DVI-D Support dual-display	VGA/2 x DVI-D Support tri-display
Audio	Mic-in, Line-in, Line-out				
LAN	2 x 10/100/1000Mbps RJ45				
I/O	10 x USB 10 x Serial port 8ch GPIO 1 x LPT 2 x PS/2	14 x USB 6 x Serial port 8ch GPIO 1 x LPT 2 x PS/2 1 x TPM	10 x USB 6 x Serial port 8ch GPIO 1 x LPT 2 x PS/2 1 x TPM	10 x USB 10 x Serial port 8ch GPIO 1 x LPT 2 x PS/2	10 x USB 10 x Serial port 8ch GPIO 1 x LPT 2 x PS/2 1 x TPM
Expansion	1 x PCIe16 1 x PCIe4 5 x PCI	1 x PCIe16 1 x PCIe8 3 x PCIe4 2 x PCI	1 x PCIe16 1 x PCIe4 4 x PCI	1 x PCIe16 3 x PCIe1 3 x PCI	1 x PCIe16 1 x PCIe4 1 x PCIe1 4 x PCI
Operation Environment	-10 ~ 60°C 5% ~ 95% (Non-condensing)				
Storage Environment	-20 ~ 80°C 5% ~ 95% (Non-condensing)				
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt				
Power Supply	ATX Power Supply				
OS Support	Win10, Linux	Win10, Win8, Win7, Linux	Win10, Win8, Win7, Linux	Win10, Win8, Win7, Linux	Win10, Win8, Win7, Linux
Dimension (W x H x D)	305 x 244 mm				

Industrial Motherboard

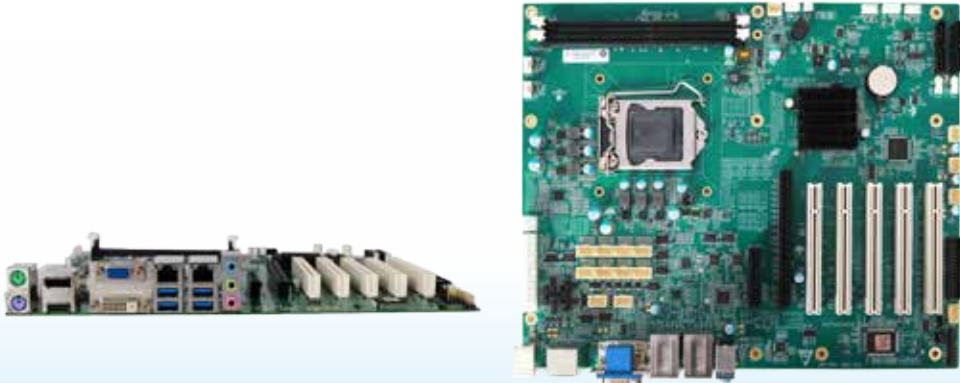
Model	EC0-1817-H81	EC0-1816-B65	EC0-1816-H61	EC0-1815
Picture				
Form Factor	ATX	ATX	ATX	ATX
Chipset	Intel® H81	Intel® B65	Intel® H61	Intel® Q77
Processor	support LGA1150 Intel® 4th Gen Intel® Core™ i7/i5/i3/Pentium®/ Celeron®	support LGA1155 Intel® 2th/3rd Gen Intel® Core™ i7/i5/i3/Pentium®/ Celeron®	support LGA1155 Intel® 2th/3rd Gen Intel® Core™ i7/i5/i3/Pentium®/ Celeron®	support LGA1155 Intel® 2th/3rd Gen Intel® Core™ i7/i5/i3/Pentium®/ Celeron®
Memory	2 x 240 PIN DDR3 DIMM Up to 16GB	2 x 240 PIN DDR3 DIMM Up to 16GB	2 x 240 PIN DDR3 DIMM Up to 16GB	2 x 240 PIN DDR3 DIMM Up to 16GB
Storage	2 x SATA 3.0 2 x SATA 2.0	4 x SATA 2.0 1 x mSATA	4 x SATA 2.0	2 x SATA 3.0 4 x SATA 2.0 RAID 0/1/5/10
Display	VGA/2 x DVI-D Support dual-display	VGA/DVI-D Support dual-display	VGA/DVI-D Support dual-display	VGA/ DVI-D/2 x DP Support tri-display
Audio	Mic-in, Line-in, Line-out			
LAN	2 x 10/100/1000Mbps RJ45			
I/O	10 x USB 6 x Serial port 8ch GPIO 1 x LPT 2 x PS/2 1 x TPM	11 x USB 10 x Serial port 8ch GPIO 1 x LPT 2 x PS/2 1 x TPM	10 x USB 10 x Serial port 8ch GPIO 1 x LPT 2 x PS/2 1 x TPM	8 x USB 6 x Serial port 16ch GPIO 2 x PS/2 1 x TPM
Expansion	1 x PCIe16 2 x PCIe1 4 x PCI	1 x PCIe16 1 x PCIe4 1 x Mini PCIE with SIM card slot 5 x PCI	1 x PCIe16 1 x PCIe1 5 x PCI	1 x PCIe16 1 x PCIe4 4 x PCI
Operation Environment	-10 ~ 60°C 5% ~ 95% (Non-condensing)			-5 ~ 60°C 5% ~ 95% (Non-condensing)
Storage Environment	-20 ~ 80°C 5% ~ 95% (Non-condensing)			
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt			
Power Supply	ATX Power Supply			
OS Support	Win10, Win8, Win7, Linux			
Dimension (W x H x D)	305 x 244 mm			304.8 x 190.5 mm

EC0-1820

ATX Motherboard with Intel® H310 Chipset

Brief Introduction

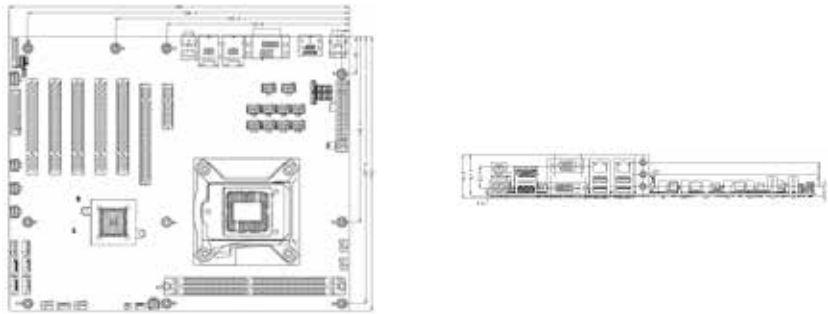
EC0-1820 is a standard ATX motherboard with Intel® H310 chipset, support LGA1151 Intel® 8th Gen Intel® Core™ i7/ i5/i3/Pentium®/Celeron® processor and up to 64GB DDR4 memory. EC0-1820 also features with rich I/O and expansion including 2 x LAN, 10 x USB, 10 x COM, VGA, DVI-D, HDMI, DP, PS/2, LPT, Audio, GPIO, TPM, PCIE and PCI.



Features

- Intel® H310 chipset
- Support Intel® LGA1151 8th Gen i7/ i5/i3/Pentium®/Celeron®
- 2 x 288PIN DDR4 DIMM support up to 64GB
- VGA+DVI-D+HDMI+DP
- 2 x LAN/10 x USB/10 x COM
- 1 x PCIe16/1x PCIe4/5 x PCI
- ATX power supply

Product size chart



(Company : MM)

Specifications

Items	Specification
Chipset	Intel® H310
CPU	Support LGA1151 8th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron®
Memory	2 x 288PIN DDR4 DIMM 2400/2666 Non-ECC, up to 64GB
Storage	4 x SATA 3.0
LAN	2 x 10/100/1000Mbps RJ45 LAN1: Intel® I219 controller, support wake-on-line LAN2: Intel® I211
Rear I/O	1 x VGA, 1 x DVI-D, 1 x HDMI, 1 x DP, support dual independent display
	4 x USB 3.1
	2 x 10/100/1000Mbps RJ45
	Audio, support Mic-in, Line-in, Line-out
	2 x PS/2
Internal I/O	6 x USB 2.0
	10 x Serial ports COM1/COM2 support RS232/422/485 and auto-flow control in RS485
	4 x SATA 3.0
	1 x LPT
	1 x 8ch GPIO
	1 x TPM
	1 x SMBUS
Expansion	1 x PCIe16, support PCIe 3.0/2.0 1 x PCIe4, support PCIe 2.0/1.1 5 x PCI, 5V 32bit, support PCI Rev 2.3
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	ATX power supply
Operating System	Support Win10 64bit and Linux with kernal over 3.10.0
Environment	Operating temperature: -10 ~ 60°C Storage temperature: -20 ~ 80°C Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	305mm x 244mm

Ordering Information

P/N	Model	Description
0030-022541	EC0-1820	ATX MB/Intel® H310/Support LGA1151 8th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU/ 2 x 288PIN DDR4 DIMMs/VGA/DVI-D/HDMI/DP/4SATA/2LAN/10USB/10COM/2 x PS/2 /Audio/8ch GPIO/LPT/TPM/1 x PCIe16/1 x PCIe4/5 x PCI/ATX power supply

EC0-1818-C236 ATX Motherboard with Intel® C236 Chipset

Brief Introduction

EC0-1818-C236 is a standard ATX motherboard with Intel® C236 chipset, support LGA1151 Intel® Xeon™ E3-1200 V5/V6, 6th/7th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® processor and up to 64GB DDR4 memory. EC0-1818-C236 also features with rich I/O and expansion including 2 x LAN, 14 x USB, 6 x COM, VGA, DVI-D, HDMI, DP, PS/2, LPT, Audio, GPIO, TPM, PCIE and PCI.



Features

Intel® C236 chipset

ATX power supply

4 x 288PIN DDR4 DIMMs support up to 64GB

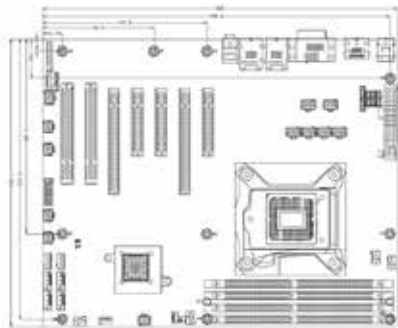
VGA+DVI-D+HDMI+DP

2 x LAN/14 x USB/6 x COM

1 x PCIEx16/1 x PCIEx8/3x PCIEx4/2 x PCI

Support Intel® LGA1151 Xeon™ E3-1200 V5/V6, Core™ i7/i5/i3/Pentium®/Celeron®

Product size chart



(Company : MM)

Specifications

Items	Specification
Chipset	Intel® C236
CPU	Support LGA1151 Xeon™ E3-1200 V5/V6 6th/7th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron®
Memory	4 x 288PIN DDR4 DIMM 2400/2666 ECC/Non-ECC, up to 64GB
Storage	4 x SATA 3.0
LAN	2 x 10/100/1000Mbps RJ45 LAN1: Intel® I210 controller, support wake-on-line LAN2: Intel® I210
Rear I/O	1 x VGA, 1 x DVI-D, 1 x HDMI, 1 x DP, support tri-independent display
	4 x USB 3.0
	2 x 10/100/1000Mbps RJ45
	Audio, support Mic-in, Line-in, Line-out
	2 x PS/2
Internal I/O	2 x USB 3.0
	8 x USB 2.0
	6 x Serial ports COM1/COM2 support RS232/422/485 and auto-flow control in RS485
	4 x SATA 3.0
	1 x LPT
	1 x 8ch GPIO
	1 x TPM
Expansion	1 x SMBUS
	1 x PCIEx16 (PCIE2), support PCIE 3.0
	1 x PCIEx8 (PCIE5, x16 connector), support PCIE 3.0
	3 x PCIEx4 (PCIE1, PCIE3, PCIE4, x8 connector), support PCIE 3.0
	2 x PCI, 5V 32bit, support PCI Rev 2.3
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	ATX power supply
Operating System	Win7, Win8, Win10, Win7E, WinServer 2008, WinServer 2012, Linux
Environment	Operating temperature: -10 ~ 60°C Storage temperature: -20 ~ 80°C Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	305mm x 244mm

Ordering Information

P/N	Model	Description
0030-022321	EC0-1818-C236	ATX MB/Intel® C236/Support LGA1151 Xeon™ E3-1200 V5/V6 6th/7th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron®4 x 288PIN DDR4 DIMMs/VGA/DVI-D/HDMI/DP/4SATA/2LAN/14USB/6COM/2 x PS2/Audio/8ch GPIO/LPT/TPM/1 x PCIEx16/1 x PCIEx8/3 x PCIEx4/2 x PCI/ATX power supply

EC0-1818(C) ATX Motherboard with Intel® H110 Chipset

Brief Introduction

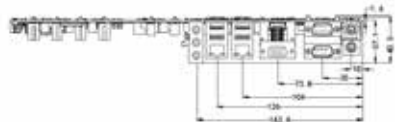
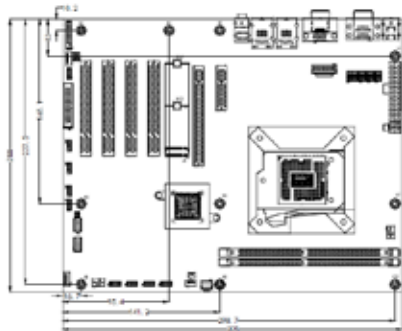
EC0-1818(C) is a standard ATX motherboard with Intel® H110 chipset, support LGA1151 Intel® 6th/7th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® processor and up to 32GB DDR4 memory. EC0-1818(C) also features with rich I/O and expansion including 2 x LAN, 10 x USB, 6 x COM, VGA, DVI-D, HDMI, PS/2, LPT, Audio, GPIO, TPM, PCIE and PCI.



Features

- Intel® H110 chipset
- Support Intel® LGA1151 6th/7th Gen i7/i5/i3/Pentium®/Celeron®
- 2 x 288PIN DDR4 DIMM support up to 32GB
- VGA+DVI-D+HDMI
- 2 x LAN/10 x USB/6 x COM
- 1 x PCIe16/1x PCIe4/4 x PCI/1 x M.2
- ATX power supply

Product size chart



(Company : MM)

Specifications

Items	Specification
Chipset	Intel® H110
CPU	Support LGA1151 6th/7th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron®
Memory	2 x 288PIN DDR4 DIMM 2400/2666 Non-ECC, up to 32GB
Storage	3 x SATA 3.0, 1 x M.2 Key B (SATA 3.0)
LAN	2 x 10/100/1000Mbps RJ45 LAN1: Intel® I219 controller, support wake-on-line and PXE boot LAN2: Intel® I211
Rear I/O	1 x VGA, 1 x HDMI, support dual independent display
	4 x USB 3.0
	2 x 10/100/1000Mbps RJ45
	2 x Serial ports, support RS232/422/485 and auto-flow control in RS485
	Audio, support Mic-in, Line-in, Line-out
	2 x PS/2
Internal I/O	1 x DVI-D
	6 x USB 2.0
	4 x Serial ports, support RS232
	3 x SATA 3.0
	1 x LPT
	1 x 8ch GPIO
	1 x TPM
Expansion	1 x SMBUS
	1 x PCIe16, support PCIe 3.0/2.0
	1 x PCIe4, support PCIe 2.0/1.1
	4 x PCI, 5V 32bit, support PCI Rev 2.3
	1 x M.2 Key B (SATA 3.0)
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	ATX power supply
Operating System	Win7, Win8, Win10, Win7E, Linux
Environment	Operating temperature: -10 ~ 60°C Storage temperature: -20 ~ 80°C Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	305mm x 244mm

Ordering Information

P/N	Model	Description
0030-022801	EC0-1818(C)	ATX MB/Intel® H110/Support LGA1151 6th/7th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU/ 2 x 288PIN DDR4 DIMMs/VGA/DVI-D/HDMI/3SATA/M.2/2LAN/10USB/6COM/2 x PS/2 /Audio/8ch GPIO/LPT/TPM/1 x PCIe16/1 x PCIe4/4 x PCI/ATX power supply

EC0-1818(B) ATX Motherboard with Intel® H110 Chipset

Brief Introduction

EC0-1818(B) is a standard ATX motherboard with Intel® H110 chipset, support LGA1151 Intel® 6th/7th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® processor and up to 32GB DDR4 memory. EC0-1818(B) also features with rich I/O and expansion including 2 x LAN, 10 x USB, 10 x COM, VGA, DVI-D, HDMI, PS/2, LPT, Audio, GPIO, TPM, PCIE and PCI.



Features

Intel® H110 chipset

VGA+DVI-D+HDMI

ATX power supply

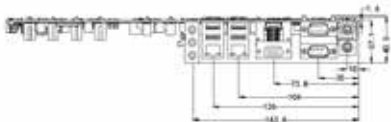
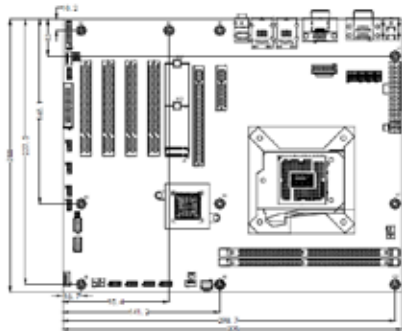
Support Intel® LGA1151 6th/7th Gen i7/i5/i3/Pentium®/Celeron®

2 x LAN/10 x USB/10 x COM

2 x 288PIN DDR4 DIMMs support up to 32GB

1 x PCIe16/3x PCIe1/3 x PCI

Product size chart



(Company : MM)

Specifications

Items	Specification
Chipset	Intel® H110
CPU	Support LGA1151 6th/7th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron®
Memory	2 x 288PIN DDR4 DIMM 2400/2666 Non-ECC, up to 32GB
Storage	3 x SATA 3.0, 1 x mSATA (SATA 3.0)
LAN	2 x 10/100/1000Mbps RJ45 LAN1: Intel® I211 controller, support wake-on-line and PXE boot LAN2: Intel® I211
Rear I/O	1 x VGA, 1 x HDMI, support dual independent display
	4 x USB 3.0
	2 x 10/100/1000Mbps RJ45
	2 x Serial ports, support RS232/422/485 and auto-flow control in RS485
	Audio, support Mic-in, Line-in, Line-out
	2 x PS/2
Internal I/O	1 x DVI-D
	6 x USB 2.0
	8 x Serial ports, support RS232
	3 x SATA 3.0, 1 x mSATA (SATA 3.0)
	1 x LPT
	1 x 8ch GPIO
	1 x TPM
	1 x SMBUS
Expansion	1 x PCIe16, support PCIE 3.0/2.0 3 x PCIe1 (x4 connector), support PCIE 2.0/1.1 3 x PCI, 5V 32bit, support PCI Rev 2.3
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	ATX power supply
Operating System	Win7, Win8, Win10, Win7E, Linux
Environment	Operating temperature: -10 ~ 60°C Storage temperature: -20 ~ 80°C Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	305mm x 244mm

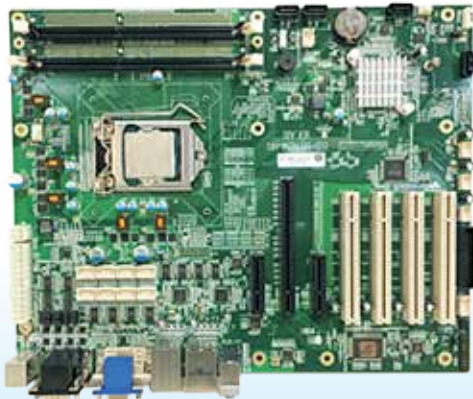
Ordering Information

P/N	Model	Description
0030-022801	EC0-1818(C)	ATX MB/Intel® H110/Support LGA1151 6th/7th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU/ 2 x 288PIN DDR4 DIMMs/VGA/DVI-D/HDMI/3SATA/M.2/2LAN/10USB/6COM/2 x PS/2 /Audio/8ch GPIO/LPT/TPM/1 x PCIe16/1 x PCIe4/4 x PCI/ATX power supply
0030-021871	EC0-1818(B)-2P-6COM	ATX MB/Intel® H110/Support LGA1151 6th/7th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU/ 2 x 288PIN DDR4 DIMMs/VGA/2SATA/1LAN/8USB/6COM/2 x PS2/Audio/8ch GPIO/LPT/TPM/1 x PCIe16/1 x PCIe1/2 x PCI/ATX power supply

EC0-1817 ATX Motherboard with Intel® H81/Q87 Chipset

Brief Introduction

EC0-1817 is a standard ATX motherboard with Intel® H81/Q87 chipset, support LGA1150 Intel® 4th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® processor. Q87 support Intel® Xeon™ E3 V3 series embedded CPU like E3-1275 V3. H81 support up to 16GB RAM and Q87 support up to 32GB RAM. EC0-1817 also features with rich I/O and expansion including 2 x LAN, 10 x USB, 10 x COM, VGA, DVI-D, HDMI, PS/2, LPT, Audio, GPIO, TPM, PCIE and PCI.



Features

Intel® H81/Q87 chipset

Support Intel® LGA1150 4th Gen i7/i5/i3/Pentium®/Celeron®

4 x 240PIN DDR3 DIMMs support up to 32GB

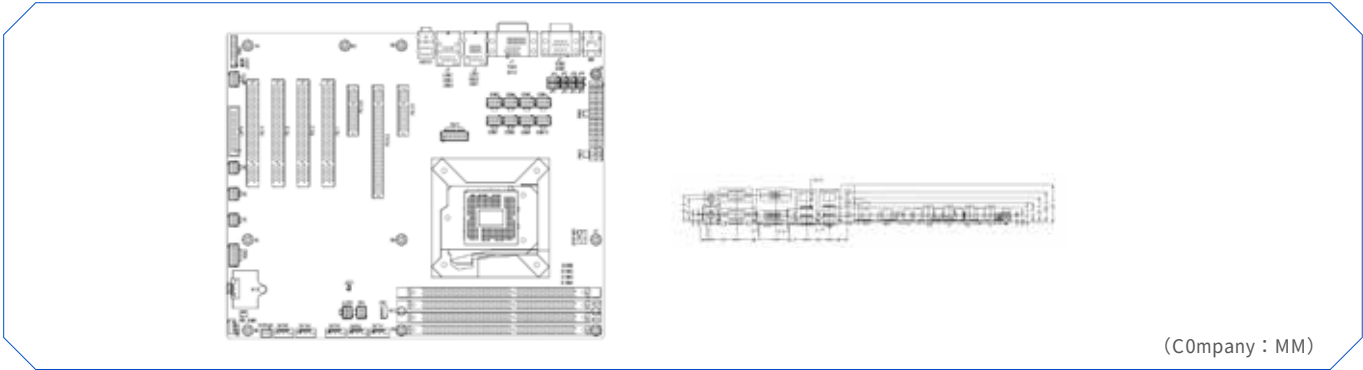
VGA + 2xDVI-D, support dual-display (H81) and tri-display (Q87)

2 x LAN/10 x USB/10 x COM

1 x PCIe16/2x PCIe1/4 x PCI

ATX power supply

Product size chart



(Company : MM)

Specifications

Items	Specification	
Chipset	Intel® H81	Intel® Q87
CPU	Support LGA1150 Intel® 4th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® processor, Q87 support Intel® Xeon™ E3 V3 series embedded CPU	
Memory	2 x 240PIN DDR3 DIMMs 1333/1600 Non-ECC, up to 16GB	4 x 240PIN DDR3 DIMMs 1333/1600 Non-ECC, up to 32GB
Storage	2 x SATA 3.0, 2 x SATA 2.0	6 x SATA 3.0, RAID 0/1/5/10
LAN	2 x 10/100/1000Mbps RJ45 LAN1: Intel® I211 controller, support wake-on-line and PXE boot LAN2: Intel® I211	
Rear I/O	1 x VGA, 1 x DVI-D support dual-independent display	1 x VGA, 1 x DVI-D support tri-independent display
	2 x USB 3.0, 2 x USB 2.0	
	2 x 10/100/1000Mbps RJ45	
	2 x Serial ports, support RS232/422/485 and auto-flow control in RS485	
	Audio, support Mic-in, Line-in, Line-out	
Internal I/O	2 x PS/2	
	1 x DVI-D	
	6 x USB 2.0	
	8 x Serial ports, support RS232	
	2 x SATA 3.0, 2 x SATA 2.0	6 x SATA 3.0, RAID 0/1/5/10
	1 x LPT	
	1 x 8ch GPIO	
	1 x TPM	
Expansion	1 x SMBUS	
	1 x PCIe16, support PCIE 2.0/1.1 2 x PCIe1 (x4 connector), support PCIE 2.0/1.1 4 x PCI, 5V 32bit, support PCI Rev 2.3	1 x PCIe16, support PCIE 2.0/1.1 1 x PCIe4, support PCIE 2.0/1.1 1 x PCIe1 (x4 connector), support PCIE 2.0/1.1 4 x PCI, 5V 32bit, support PCI Rev 2.3
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt	
Power Supply	ATX power supply	
Operating System	Win7, Win8, Win10, Win7E, Linux	
Environment	Operating temperature: -10 ~ 60°C Storage temperature: -20 ~ 80°C Humidity: 5% ~ 95% Non-condensing	
Dimensions(L x W)	305mm x 244mm	

Ordering Information

P/N	Model	Description
0030-020741	EC0-1817-H81	ATX MB/Intel® H81/Support LGA1150 4th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU/ 2 x 240PIN DDR3 DIMMs/VGA/2DVI-D/4SATA/2LAN/10USB/10COM/2 x PS2/Audio/8ch GPIO/LPT/ TPM/1 x PCIe16/2 x PCIe1/4 x PCI/ATX power supply
0030-020751	EC0-1817-Q87	ATX MB/Intel® Q87/Support LGA1150 4th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU/ 4 x 240PIN DDR3 DIMMs/VGA/2DVI-D/6SATA/2LAN/10USB/10COM/2 x PS2/Audio/8ch GPIO/LPT/ TPM/1 x PCIe16/1 x PCIe4/1 x PCIe1/4 x PCI/ATX power supply

EC0-1816(D) ATX Motherboard with Intel® H61 Chipset

Brief Introduction

EC0-1817 is a standard ATX motherboard with Intel® H81/Q87 chipset, support LGA1150 Intel® 4th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® processor. Q87 support Intel® Xeon™ E3 V3 series embedded CPU like E3-1275 V3. H81 support up to 16GB RAM and Q87 support up to 32GB RAM. EC0-1817 also features with rich I/O and expansion including 2 x LAN, 10 x USB, 10 x COM, VGA, DVI-D, HDMI, PS/2, LPT, Audio, GPIO, TPM, PCIE and PCI.



Features

Intel® H61 chipset

Support Intel® LGA1155 2th/3rd Gen i7/i5/i3/Pentium®/Celeron®

2 x 240PIN DDR3 DIMMs support up to 32GB

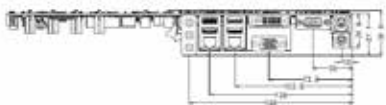
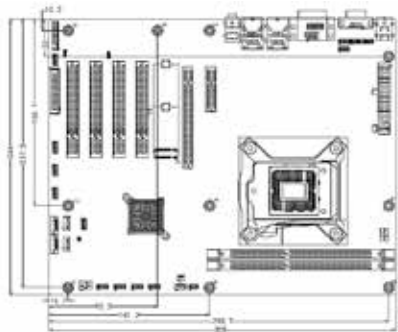
VGA + DVI-D

2 x LAN/10 x USB/6 x COM

1 x PCIEx16/1x PCIEx4/4 x PCI

ATX power supply

Product size chart



(C0mpany : MM)

Specifications

Items	Specification
Chipset	Intel® H61
CPU	support LGA1155 Intel® 2th/3rd Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® processor
Memory	2 x 240PIN DDR3 DIMMs 1066/1333/1600 Non-ECC, up to 16GB
Storage	2 x SATA 2.0 + 1 x M.2
LAN	2 x 10/100/1000Mbps RJ45 LAN1: Intel® 82583V controller, support wake-on-line and PXE boot LAN2: Intel® 82583V When PCIEx4 slot occupied by PCIEx4 card, LAN2 is disable; When PCIEx4 slot occupied by PCIEx1 card or free, LAN2 is enable
Rear I/O	1 x VGA, 1 x DVI-D, support dual-independent display
	4 x USB 2.0
	2 x 10/100/1000Mbps RJ45
	1 x Serial ports, support RS232/422/485 and auto-flow control in RS485
	Audio, support Mic-in, Line-in, Line-out
Internal I/O	2 x PS/2
	6 x USB 2.0
	5 x Serial ports, support RS232
	2 x SATA 2.0, 1 x M.2
	1 x LPT
	1 x 8ch GPIO
	1 x TPM
Expansion	1 x SMBUS
	1 x PCIEx16, support PCIE 2.0/1.1
	1 x PCIEx4, support PCIE 2.0/1.1
	4 x PCI, 5V 32bit, support PCI Rev 2.3
	When PCIEx4 slot occupied by PCIEx4 card, LAN2 is disable;
	When PCIEx4 slot occupied by PCIEx1 card or free, LAN2 is enable
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	ATX power supply
Operating System	Win7, Win8, Win7E, Linux
Environment	Operating temperature: -10 ~ 60°C Storage temperature: -20 ~ 80°C Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	305mm x 244mm

Ordering Information

P/N	Model	Description
0030-022601	EC0-1816(D)	ATX MB/Intel® H61/Support LGA1155 2th/3rd Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU/ 2 x 240PIN DDR3 DIMMs/VGA/DVI-D/2SATA/M.2/LAN/10USB/6COM/2 x PS2/Audio/8ch GPIO/ LPT/TPM/1 x PCIEx16/1 x PCIEx4/4 x PCI/ATX power supply
0030-022611	EC0-1816(D)-2COM	ATX MB/Intel® H61/Support LGA1155 2th/3rd Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU/ 2 x 240PIN DDR3 DIMMs/VGA/DVI-D/2SATA/M.2/LAN/10USB/2COM/2 x PS2/Audio/8ch GPIO/LPT/ TPM/1 x PCIEx16/1 x PCIEx4/4 x PCI/ATX power supply

EC0-1816 ATX Motherboard with Intel® H61/B65 Chipset

Brief Introduction

EC0-1817 is a standard ATX motherboard with Intel® H81/Q87 chipset, support LGA1150 Intel® 4th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® processor. Q87 support Intel® Xeon™ E3 V3 series embedded CPU like E3-1275 V3. H81 support up to 16GB RAM and Q87 support up to 32GB RAM. EC0-1817 also features with rich I/O and expansion including 2 x LAN, 10 x USB, 10 x COM, VGA, DVI-D, HDMI, PS/2, LPT, Audio, GPIO, TPM, PCIE and PCI.



Features

Intel® H61/B65 chipset

Support Intel® LGA1155 2th/3rd Gen i7/i5/i3/Pentium®/Celeron®

2 x 240PIN DDR3 DIMMs support up to 32GB

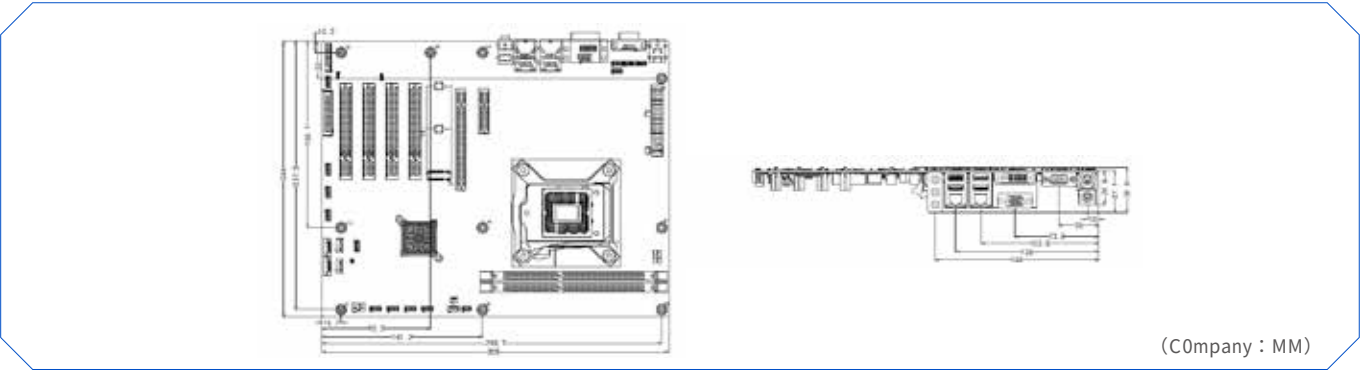
VGA + DVI-D

2 x LAN/10 x USB/10 x COM

1 x PCIEx16/2x PCIEx1/4 x PCI

ATX power supply

Product size chart



Specifications

Items	Specification	
Chipset	Intel® H61	Intel® B65
CPU	support LGA1155 Intel® 2th/3rd Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® processor	
Memory	2 x 240PIN DDR3 DIMMs 1066/1333/1600 Non-ECC, up to 16GB	
Storage	4 x SATA 2.0	4 x SATA 2.0, 1 x mSATA
LAN	2 x 10/100/1000Mbps RJ45 LAN1: Intel® 82583V controller, support wake-on-line and PXE boot LAN2: Intel® 82583V	
Rear I/O	1 x VGA, 1 x DVI-D, support dual-independent display	
	4 x USB 2.0	
	2 x 10/100/1000Mbps RJ45	
	2 x Serial ports, support RS232/422/485 and auto-flow control in RS485	
	Audio, support Mic-in, Line-in, Line-out	
Internal I/O	2 x PS/2	
	6 x USB 2.0	6 x USB 2.0, 1 x vertical USB 2.0
	8 x Serial ports, support RS232	
	4 x SATA 2.0	4 x SATA 2.0, 1 x mSATA
	1 x LPT	
	1 x 8ch GPIO	
	1 x TPM	
Expansion	1 x SMBUS	
	1 x PCIEx16, support PCIE 2.0/1.1 1 x PCIEx1 (x4 connector), support PCIE 2.0/1.1 5 x PCI, 5V 32bit, support PCI Rev 2.3	1 x PCIEx16, support PCIE 2.0/1.1 1 x PCIEx4, support PCIE 2.0/1.1 1 x Mini PCIE with SIM card holder 5 x PCI, 5V 32bit, support PCI Rev 2.3
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt	
Power Supply	ATX power supply	
Operating System	Win7, Win8, Win7E, Linux	
Environment	Operating temperature: -10 ~ 60°C Storage temperature: -20 ~ 80°C Humidity: 5% ~ 95% Non-condensing	
Dimensions(L x W)	305mm x 244mm	

Ordering Information

P/N	Model	Description
0030-021551	EC0-1816V2NA(C)-10COM	ATX MB/Intel® H61/Support LGA1155 2th/3rd Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU/ 2 x 240PIN DDR3 DIMMs/VGA/DVI-D/4SATA/2LAN/10USB/10COM/2 x PS2/Audio/8ch GPIO/LPT/TPM/1 x PCIEx16/1 x PCIEx1/5 x PCI/ATX power supply
0030-021691	EC0-1816V2NA(C)-10COML	ATX MB/Intel® H61/Support LGA1155 2th/3rd Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU/ 2 x 240PIN DDR3 DIMMs/VGA/DVI-D/4SATA/2LAN/10USB/10COM/2 x PS2/Audio/8ch GPIO/LPT/TPM/1 x PCIEx16/1 x PCIEx1/5 x PCI/ATX power supply Support WinServer 2008
0030-021641	EC0-1816V2NA(C)-6COM	ATX MB/Intel® H61/Support LGA1155 2th/3rd Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU/ 2 x 240PIN DDR3 DIMMs/VGA/DVI-D/4SATA/2LAN/10USB/6COM/2 x PS2/Audio/8ch GPIO/LPT/TPM/1 x PCIEx16/1 x PCIEx1/5 x PCI/ATX power supply
0030-021061	EC0-1816-B65-6COM	ATX MB/Intel® B65/Support LGA1150 2th/3rd Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU/ 2 x 240PIN DDR3 DIMMs/VGA/DVI-D/4SATA/mSATA2LAN/11USB/6COM/2 x PS2/Audio/8ch GPIO/LPT/TPM/1 x PCIEx16/1 x PCIEx4/1 x PCIEx1/4 x PCI/Mini PCIE/SIM/ATX power supply
0030-021071	EC0-1816-B65-10COM-5P	ATX MB/Intel® B65/Support LGA1150 2th/3rd Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU/ 2 x 240PIN DDR3 DIMMs/VGA/DVI-D/4SATA/mSATA2LAN/11USB/10COM/2 x PS2/Audio/8ch GPIO/LPT/TPM/1 x PCIEx16/1 x PCIEx4/5 x PCI/Mini PCIE/SIM/ATX power supply
0030-021061	EC0-1816-B65-6COM-5P	ATX MB/Intel® B65/Support LGA1150 2th/3rd Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU/ 2 x 240PIN DDR3 DIMMs/VGA/DVI-D/4SATA/mSATA2LAN/11USB/6COM/2 x PS2/Audio/8ch GPIO/LPT/TPM/1 x PCIEx16/1 x PCIEx4/5 x PCI/Mini PCIE/SIM/ATX power supply

EC0-1815 ATX Motherboard with Intel® Q77 Chipset

Brief Introduction

EC0-1815 is a standard ATX motherboard with Intel® Q77 chipset, support LGA1155 Intel® 2th/3rd Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® processor and up to 16GB RAM. EC0-1815 also features with rich I/O and expansion including 2 x LAN, 8 x USB, 6 x COM, VGA, DVI-D, DP, PS/2, LPT, Audio, GPIO, TPM, PCIE and PCI.



Features

Intel® Q77 chipset

Support Intel® LGA1155 2th/3rd Gen i7/i5/i3/Pentium®/Celeron®

2 x 240PIN DDR3 DIMMs support up to 16GB

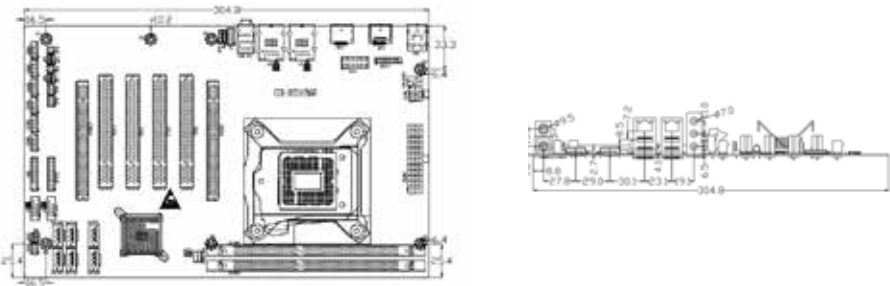
VGA + DVI-D + 2DP, support tri-independent display

2 x LAN/8 x USB/6 x COM

1 x PCIEx16/1x PCIEx4/4 x PCI

ATX power supply

Product size chart



(CCompany : MM)

Specifications

Items	Specification
Chipset	Intel® Q77
CPU	support LGA1155 Intel® 2th/3rd Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® processor
Memory	2 x 240PIN DDR3 DIMMs 1066/1333/1600 ECC/Non-ECC, up to 16GB
Storage	2 x SATA 3.0, 4 x SATA 2.0, RAID 0/1/5/10
LAN	2 x 10/100/1000Mbps RJ45 LAN1: Intel® 82579LM controller, support wake-on-line and AMT 8.0 LAN2: Intel® 82583V
Rear I/O	2 x DP, support tri-independent display
	4 x USB 3.0
	2 x 10/100/1000Mbps RJ45
	Audio, support Mic-in, Line-in, Line-out
	2 x PS/2
Internal I/O	1 x VGA, 1 x DVI-D
	4 x USB 2.0
	6 x Serial ports, COM1/COM2 support RS232/422/485 COM3 ~ COM6 support RS232
	2 x SATA 3.0, 4 x SATA 2.0, RAID 0/1/5/10
	1 x 16ch GPIO
	1 x TPM
	1 x SMBUS
Expansion	1 x PCIEx16, support PCIE 3.0/2.0 1 x PCIEx4, support PCIE 2.0/1.1 4 x PCI, 5V 32bit, support PCI Rev 2.3
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	ATX power supply
Operating System	WinXP, Win7, Win8, Win7E, Linux
Environment	Operating temperature: -5 ~ 60°C Storage temperature: -20 ~ 80°C Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	304.8mm x 190.5mm

Ordering Information

P/N	Model	Description
0030-018961	EC0-1815V2NAR	ATX MB/Intel® Q77/Support LGA1155 2th/3rd Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU/ 2 x 240PIN DDR3 DIMMs/2DP/VGA/DVI-D/6SATA/2LAN/8USB/6COM/2 x PS2/Audio/16ch GPIO/ TPM/ 1 x PCIEx16/1 x PCIEx4/4 x PCI/ATX power supply

Industrial Motherboard

Model	EC9-1819	EC7-1821	EC7-1822
Picture			
Form Factor	Micro-ATX	Mini-ITX	Mini-ITX
Chipset	Intel® H81	Intel® H110	Intel® H110
Processor	support LGA1150 4th Gen Intel® Core™ i7/i5/i3/ Pentium®/Celeron®	Support LGA1151 6th/7th Gen Intel® Core™ i7/i5/i3/ Pentium®/Celeron®	Support LGA1151 6th/7th Gen Intel® Core™ i7/i5/i3/ Pentium®/Celeron®
Memory	2 x 240 PIN DDR3 DIMM Up to 16GB	1 x 288 PIN DDR4 DIMM Up to 16GB	2 x 288 PIN DDR4 DIMM Up to 32GB
Storage	2 x SATA 3.0 1 x SATA 2.0 1 x mSATA	2 x SATA 3.0	2 x SATA 3.0
Display	VGA/DVI-D Support dual-display	VGA/HDMI Support tri-display	VGA/HDMI/DP Support dual-display
Audio	Mic-in, Line-in, Line-out	Mic-in, Line-out	Mic-in, Line-out
LAN	2 x 10/100/1000Mbps RJ45		
I/O	12 x USB 10 x Serial port 8ch GPIO 1 x LPT 2 x PS/2 1 x TPM	8 x USB 6 x Serial port 16ch GPIO	9 x USB 2 x Serial port 8ch GPIO 1 x PS/2
Expansion	1 x PCIe16 1 x PCIe1 2 x PCI	1 x PCIe16 SPI, I2C, SMBUS, LPC	1 x PCIe16 1 x Mini PCIE with SIM card slot LPC
Operation Environment	-10 ~ 60°C 5% ~ 95% (Non-condensing)	0 ~ 50°C 5% ~ 95% (Non-condensing)	-10 ~ 60°C 5% ~ 95% (Non-condensing)
Storage Environment	-20 ~ 80°C 5% ~ 95% (Non-condensing)	-20 ~ 60°C 5% ~ 95% (Non-condensing)	-20 ~ 80°C 5% ~ 95% (Non-condensing)
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt		
Power Supply	ATX Power Supply	ATX Power Supply	ATX Power Supply
OS Support	Win10, Win8, Win7, Linux	Win10, Win8, Win7, Linux	Win10, Win8, Win7, Linux
Dimension (W x H x D)	244 x 244 mm	170 x 170 mm	170 x 170 mm

Industrial Motherboard

Model	EC7-1820	EC7-1823
Picture		
Form Factor	Mini-ITX	Mini-ITX
Chipset	Intel® Apollo Lake	Intel® BayTrail
Processor	Intel® J3455/N3350	Intel® Celeron® J1900
Memory	2 x 204 PIN DDR3L SO-DIMM Up to 8GB	1 X 204 PIN DDR3L SO-DIMM Up to 8GB
Storage	2 x SATA 3.0 or 1 x SATA 3.0, 1 x mSATA	1 x SATA 2.0 1 x mSATA
Display	LVDS/2 x VGA/HDMI Support dual-display	LVDS/VGA/HDMI Support dual-display
Audio	Mic-in, Line-out	Mic-in, Line-out
LAN	2 x 10/100/1000Mbps RJ45	
I/O	10 x USB 6 x Serial port 8ch GPIO 2 x PS/2 1 x TPM	7 x USB 6 x Serial port 16ch GPIO 1 x PS/2
Expansion	1 x PCIe1 1 x Mini PCIE with SIM card slot SPI, I2C, SMBUS, LPC	1 x PCIe1 1 x Mini PCIE with SIM card slot
Operation Environment	-10 ~ 65°C 20% ~ 95% (Non-condensing)	-10 ~ 60°C 5% ~ 95% (Non-condensing)
Storage Environment	-40 ~ 80°C 20% ~ 95% (Non-condensing)	-20 ~ 85°C 5% ~ 95% (Non-condensing)
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt	
Power Supply	J3455: ATX Power Supply N3350: DC 12V	ATX Power Supply DC 12V (4 PIN) DC 12V (3 PIN DC Jack)
OS Support	Win10, Linux	Win10, Win8, Win7, Linux
Dimension (W x H x D)	170 x 170 mm	170 x 170 mm

EC9-1819 Micro ATX Motherboard with Intel® H81 Chipset

Brief Introduction

EC9-1819 is a standard Micro ATX motherboard with Intel® H81 chipset, support LGA1150 Intel® 4th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® processor and up to 16GB RAM. EC9-1819 also features with rich I/O and expansion including 2 x LAN, 8 x USB, 6 x COM, VGA, DVI-D, PS/2, LPT, Audio, GPIO, TPM, PCIE and PCI.



Features

Intel® Q77 chipset

Support Intel® LGA1150 4th Gen i7/i5/i3/Pentium®/Celeron®

2 x 240PIN DDR3 DIMMs support up to 16GB

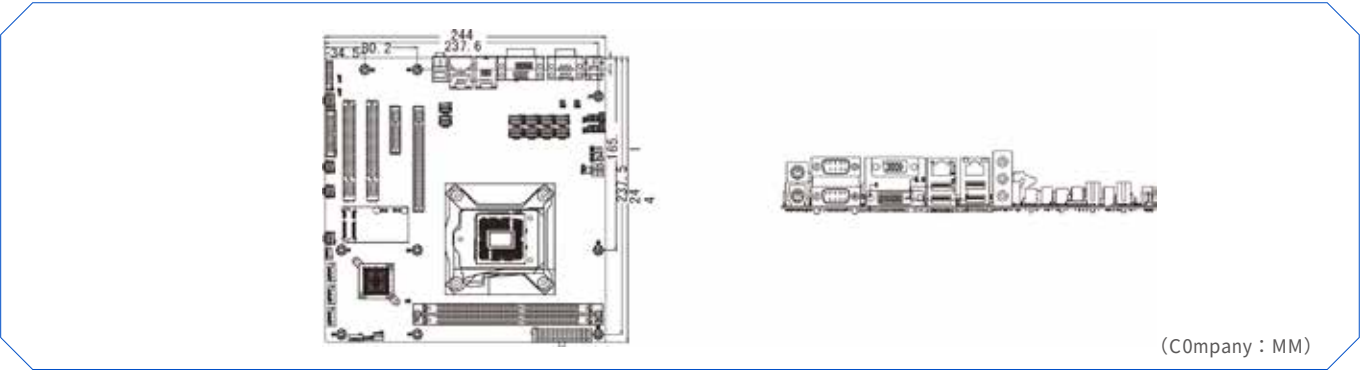
VGA + DVI-D, support dual-independent display

2 x LAN/12 x USB 10 x COM

1 x PCIe16/1x PCIe4/4 x PCI

ATX power supply

Product size chart



Specifications

Items	Specification
Chipset	Intel® H81
CPU	support LGA1150 Intel® 4th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® processor
Memory	2 x 240PIN DDR3 DIMMs 1333/1600 Non-ECC, up to 16GB
Storage	2 x SATA 3.0, 1 x SATA 2.0, 1 x mSATA
LAN	2 x 10/100/1000Mbps RJ45 LAN1: Intel® I211 controller, support wake-on-line LAN2: Intel® I211 controller
Rear I/O	1 x VGA, 1 x DVI-D, support dual-independent display
	2 x USB 3.0, 2 x USB 2.0
	2 x Serial ports, support RS232/R422/485 auto-flow control in RS485
	2 x 10/100/1000Mbps RJ45
	Audio, support Mic-in, Line-in, Line-out
	2 x PS/2
Internal I/O	8 x USB 2.0
	8 x Serial ports, support RS232
	3 x SATA 3.0, 1 x SATA 2.0, 1 x mSATA
	1 x 8ch GPIO
	1 x LPT
	1 x TPM
	1 x SMBUS
Expansion	1 x PCIe16, support PCIE 2.0/1.1 1 x PCIe1 (x4 connector), support PCIE 2.0/1.1 2 x PCI, 5V 32bit, support PCI Rev 2.3
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	ATX power supply
Operating System	Win7, Win8, Win10, Win7E, Linux
Environment	Operating temperature: -10 ~ 60°C Storage temperature: -20 ~ 80°C Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	244mm x 244mm

Ordering Information

P/N	Model	Description
0030-020581	EC9-1819V2NA	Micro ATX MB/Intel® H81/Support LGA1150 4th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU/2 x 240PIN DDR3 DIMMs/VGA/DVI-D/3SATA/mSATA/2LAN/12USB/10COM/2 x PS2/ Audio/8ch GPIO/LPT/TPM/1 x PCIe16/1 x PCIe1/2 x PCI/ATX power supply
0030-020701	EC9-1819V2NA-02	Micro ATX MB/Intel® H81/Support LGA1150 4th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU/2 x 240PIN DDR3 DIMMs/VGA/DVI-D/3SATA/mSATA/2LAN/12USB/10COM/2 x PS2/ Audio/8ch GPIO/LPT/TPM/1 x PCIe16/1 x PCIe1/2 x PCI/ATX power supply Intel® I210 controller

EC7-1820 Mini-ITX Motherboard with Intel® Apollo Lake

Brief Introduction

EC7-1820 is a standard Mini-ITX motherboard with Intel® Apollo Lake SoC, support Intel® J3455 and N3350 processor and up to 8GB RAM. EC7-1820 also features with rich I/O and expansion including 2 x LAN, 10 x USB, 6 x COM, VGA, HDMI, LVDS, PS/2, Audio, GPIO, TPM, PCIE.



Features

- Intel® Apollo Lake J3455/N3350 SoC

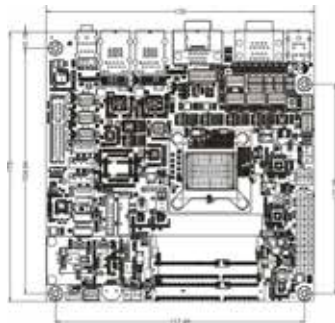
2 x 204PIN DDR3L SO-DIMMs support up to 8GB

VGA + HDMI + LVDS, support dual-independent display
- 2 x LAN/10 x USB, 6 x COM

1 x PCIe16/1 x Mini PCIE/1x mSATA

ATX and DC 12V power supply

Product size chart



(Company : MM)

Specifications

Items	Specification
Chipset	Intel® Apollo Lake
CPU	Intel® J3455/N3350
Memory	2 x 204PIN DDR3L SO-DIMMs Non-ECC, up to 8GB
Storage	2 x SATA 3.0 or 1 x SATA 3.0, 1 x mSATA
LAN	2 x 10/100/1000Mbps RJ45 LAN1: Intel® I211 controller, support wake-on-line LAN2: Intel® I211 controller
Rear I/O	1 x VGA, 1 x HDMI, support dual-independent display
	4 x USB 3.0
	2 x Serial ports, support RS232/R422/485 auto-flow control in RS485
	2 x 10/100/1000Mbps RJ45
	Audio, support Mic-in, Line-out
	2 x PS/2
Internal I/O	1 x VGA, 1 x LVDS support dual-channel 24bit
	6 x USB 2.0
	4 x Serial ports, support RS232
	2 x SATA 3.0 or 1 x SATA 3.0, 1 x mSATA
	1 x 8ch GPIO
	1 x TPM
Expansion	1 x PCIe1 (x4 connector), support PCIe 2.0/1.1 1 x Mini PCIE with SIM card holder SPI, I2C, SMBUS, LPC
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	J3455: ATX power supply N3350: DC 12V
Operating System	Win10, Linux
Environment	Operating temperature: -10 ~ 65°C Storage temperature: -40 ~ 80°C Humidity: 20% ~ 95% Non-condensing
Dimensions(L x W)	170mm x 170mm

Ordering Information

P/N	Model	Description
0030-021271	EC7-1820-J3455	Mini-ITX MB/Intel® Apollo Lake J3455 1.5GHz/ 2 x 204PIN DDR3L SO-DIMMs/SATA/mSATA/ 2VGA/HDMI/LVDS/2LAN/8USB/6COM/2 x PS2/Audio/TPM/8ch GPIO/1 x PCIe1/1 x Mini PCIE/ SIM/ATX power supply
0030-021281	EC7-1820-N3350	Mini-ITX MB/Intel® Apollo Lake N3350 1.1GHz/2 x 204PIN DDR3L SO-DIMMs/SATA/mSATA/ 2VGA/HDMI/LVDS/2LAN/8USB/6COM/2 x PS2/Audio/TPM/8ch GPIO/1 x PCIe1/1 x Mini PCIE/ SIM/DC 12V

EC7-1821 Mini-ITX Motherboard with Intel® H110 Chipset

Brief Introduction

EC7-1821 is a standard Mini-ITX motherboard with Intel® H110 chipset, support Intel® LGA1151 6th/7th Gen Core™/Pentium®/Celeron® processor and up to 16GB RAM. EC7-1821 also features with rich I/O and expansion including 2 x LAN, 8 x USB, 6 x COM, VGA, HDMI, Audio, GPIO , PCIE.



Features

Intel® H110 chipset

1 x 288PIN DDR4 DIMM support up to 16GB

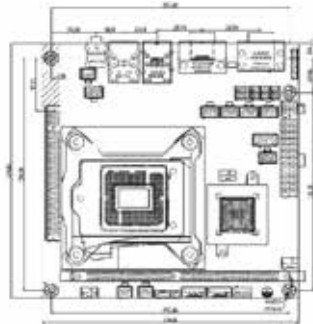
VGA + HDMI, support dual-independent display

2 x LAN/8 x USB, 6 x COM

1 x PCIe16

ATX power supply

Product size chart



(Company : MM)

Specifications

Items	Specification
Chipset	Intel® H110
CPU	Support Intel® LGA1151 6th/7th Gen Core™/Pentium®/Celeron® processor
Memory	1 x 288PIN DDR4 DIMM Non-ECC, up to 16GB
Storage	2 x SATA 3.0
LAN	2 x 10/100/1000Mbps RJ45 LAN1: RTL811H controller, support wake-on-line and PXE boot LAN2: RTL811H controller
Rear I/O	1 x VGA, 1 x HDMI, support dual-independent display
	2 x USB 3.0, 2 x USB 2.0
	2 x Serial ports, support RS232/R422/485 auto-flow control in RS485
	2 x 10/100/1000Mbps RJ45
	Audio, support Mic-in, Line-out
Internal I/O	2 x USB 2.0, 1 x USB 3.0, 1 x vertical USB 3.0
	4 x Serial ports, support RS232
	2 x SATA 3.0
	1 x 16ch GPIO
Expansion	1 x PCIe16, support PCIE 3.0/2.0 SPI, I2C, SMBUS, LPC
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	ATX power supply
Operating System	Win7, Win8, Win10, Win7E, Linux
Environment	Operating temperature: 0 ~ 50°C Storage temperature: -20 ~ 60°C Humidity: 5% ~ 90% Non-condensing
Dimensions(L x W)	170mm x 170mm

Ordering Information

P/N	Model	Description
0030-021911	EC7-1821-H110S	Mini-ITX MB/Intel® H110/ Support Intel® LGA1151 6th/7th Gen Core™/Pentium®/Celeron® processor1 x 288PIN DDR4 DIMM/2SATA/VGA/HDMI/2LAN/8USB/6COM/Audio/16ch GPIO/1 x PCIe16/ATX power supply

EC7-1822 Mini-ITX Motherboard with Intel® H110 Chipset

Brief Introduction

EC7-1822 is a standard Mini-ITX motherboard with Intel® H110 chipset, support Intel® LGA1151 6th/7th Gen Core™/Pentium®/Celeron® processor and up to 32GB RAM. EC7-1822 also features with rich I/O and expansion including 2 x LAN, 8 x USB, 6 x COM, VGA, HDMI, DP, eDP, Audio, GPIO , PCIE.



Features

- Intel® H110 chipset

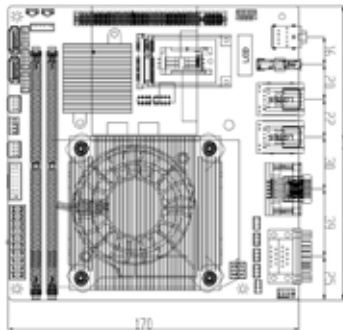
2 x 288PIN DDR4 DIMM support up to 32GB

VGA + HDMI + DP + eDP, support dual-independent display
- 2 x LAN, 9 x USB, 2 x COM

1 x PCIe16, 1 x Mini PCIE, 1 x SIM

ATX power supply

Product size chart



(Company : MM)

Specifications

Items	Specification
Chipset	Intel® H110
CPU	Support Intel® LGA1151 6th/7th Gen Core™/Pentium®/Celeron® processor
Memory	2 x 288PIN DDR4 DIMM Non-ECC, up to 32GB
Storage	2 x SATA 3.0
LAN	2 x 10/100/1000Mbps RJ45 LAN1: Intel® I211 controller LAN2: Intel® I211 controller
Rear I/O	1 x VGA, 1 x HDMI, 1 x DP, support dual-independent display
	4 x USB 3.0
	2 x Serial ports, support RS232/R422/485 auto-flow control in RS485
	2 x 10/100/1000Mbps RJ45
	Audio, support Mic-in, Line-out
Internal I/O	5 x USB 2.0
	2 x SATA 3.0
	1 x 8ch GPIO
	1 x PS/2
Expansion	1 x PCIe16, support PCIE 3.0/2.0 1 x Mini PCIE with SIM card holder LPC
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	ATX power supply
Operating System	Win7, Win8, Win10, Win7E, Linux
Environment	Operating temperature: -10 ~ 60°C Storage temperature: -20 ~ 80°C Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	170mm x 170mm

Ordering Information

P/N	Model	Description
0030-021981	EC7-1822	Mini-ITX MB/Intel® H110/ Support Intel® LGA1151 6th/7th Gen Core™/Pentium®/Celeron® processor 2 x 288PIN DDR4 DIMM/2SATA/VGA/HDMI/DP/eDP 2LAN/9USB/2COM/Audio/8ch GPIO/PS2/1 x PCIe16/1 x Mini PCIE/1 x SIM/ATX power supply

EC7-1823 Mini-ITX Motherboard with Intel® BayTrail

Brief Introduction

EC7-1823 is a standard Mini-ITX motherboard with Intel® BayTrail SoC, support Intel® Celeron® J1900 processor and up to 8GB RAM. EC7-1823 also features with rich I/O and expansion including 2 x LAN, 7 x USB, 6 x COM, VGA, HDMI, LVDS, Audio, GPIO , PCIE.



Features

Intel® BayTrail Celeron® J1900

1 x 204PIN DDR3L SO-DIMM support up to 8GB

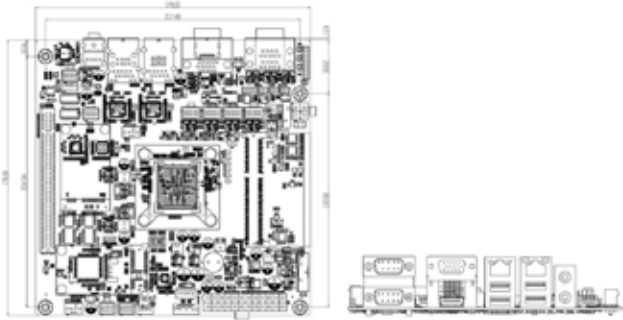
VGA + HDMI + LVDS, support dual-independent display

2 x LAN, 7 x USB, 6 x COM

1 x PCIe16, 1 x Mini PCIE, 1 x SIM, 1 x mSATA

ATX power supply, DC 12V

Product size chart



(C0mpany : MM)

Specifications

Items	Specification
Chipset	Intel® BayTrail
CPU	Intel® Celeron® J1900
Memory	1 x 204PIN DDR3L SO-DIMM Non-ECC, up to 8GB
Storage	1 x SATA 2.0, 1 x mSATA
LAN	2 x 10/100/1000Mbps RJ45 LAN1: Intel® I211 controller, support wake-on-line and PXE boot LAN2: Intel® I211 controller
Rear I/O	1 x VGA, 1 x HDMI, support dual-independent display HDMI only in EC7-1823-J1900SP and EC7-1823-J1900DC
	1 x USB 3.0, 3 x USB 2.0
	2 x Serial ports, support RS232/R422/485 auto-flow control in RS485
	2 x 10/100/1000Mbps RJ45
	Audio, support Mic-in, Line-out
Internal I/O	1 x PS/2 (In EC7-1823-DC)
	1 x LVDS, support dual-channel 24bit
	3 x USB 2.0
	4 x Serial ports, support RS232
	1 x SATA 2.0, 1 x mSATA
Expansion	1 x 16ch GPIO
	1 x PS/2 (In EC7-1823-J1900, EC7-1823-SP)
	1 x PCIe1, support PCIE 2.0
Watchdog Timer	1 x Mini PCIE with SIM card holder
Power Supply	1 ~ 255sec/min timer system reset or interrupt
Operating System	ATX power supply (EC7-1823-J1900) DC 12V (4 PIN) (EC7-1823-J1900SP) DC 12V (3 PIN DC Jack) (EC7-1823-J1900DC)
Environment	Win7, Win8, Win10, Win7E, Linux
Dimensions(L x W)	Operating temperature: -10 ~ 60°C Storage temperature: -20 ~ 85°C Humidity: 5% ~ 95% Non-condensing
	170mm x 170mm

Ordering Information

P/N	Model	Description
0030-022081	EC7-1823-J1900	Mini-ITX MB/Intel® BayTrail/Celeron® J1900/1 x 204PIN DDR3L SO-DIMM/SATA/mSATA/VGA/LVDS/2LAN/7USB/6COM/Audio/16ch GPIO/PS2/ 1 x PCIe1/1 x Mini PCIE/1 x SIM/ATX power supply
0030-022191	EC7-1823-J1900SP	Mini-ITX MB/Intel® BayTrail/Celeron® J1900/1 x 204PIN DDR3L SO-DIMM/SATA/mSATA/VGA/HDMI/LVDS/2LAN/7USB/6COM/Audio/16ch GPIO/PS2/1 x PCIe1/1 x Mini PCIE/1 x SIM/DC 12V 4PIN
0030-022241	EC7-1823-J1900DC	Mini-ITX MB/Intel® BayTrail/Celeron® J1900/1 x 204PIN DDR3L SO-DIMM/SATA/mSATA/VGA/HDMI/LVDS/2LAN/7USB/6COM/Audio/16ch GPIO/PS2/1 x PCIe1/1 x Mini PCIE/1 x SIM/DC 12V Jack

EPE-1815 EPE Standard CPU Card (PICMG 1.3)

Brief Introduction

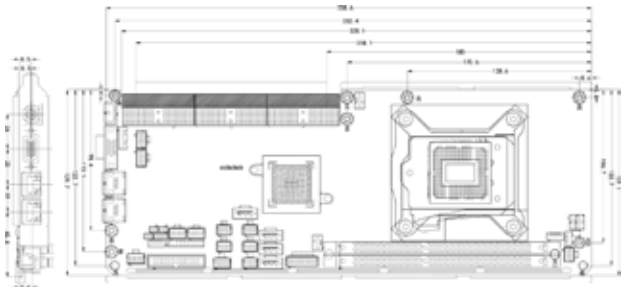
EPE-1815 is a EPE standard CPU card (compliant with PICMG 1.3) based on Intel® H61/B65/Q67 chipset. It supports Intel® 2nd/3rd Gen Core™/Pentium®/Celeron® CPU and 2 x DDR3 DIMMS. The EPE rugged Bus makes it more reliable than traditional PICMG 1.3 gold finger structure. EPE-1815 and backplane are widely used in automation control, inspection, oil, transportation, surveillance and machine vision.



Features

- Intel® 2nd/3rd Gen Core™/Pentium®/Celeron® CPU
- 2 x DDR3 DIMMs up to 16GB RAM
- Up to 14 x USB, 2 x LAN and 6 x COM
- Multiple EPE backplane optional

Product size chart



(C0mpany : MM)

Specifications

Items	Specification
Chipset	Intel® H61/B65/Q67
CPU	Intel® 2nd/3rd Gen Core™/Pentium®/Celeron® CPU
Memory	2 x 240PIN DDR3 DIMMs, up to 16GB
Storage	H61: 4 x SATA 2.0, support hot-swap B65: 1 x SATA 3.0, 5 x SATA 2.0 (2 by backplane), support hot-swap Q67: 2 x SATA 3.0, 4 x SATA 2.0 (2 by backplane), support hot swap, RAID
LAN	2 x 10/100/1000Mbps RJ45, LAN1 support Wake-On-Lan
Display	Support VGA/DVI-D and 2 independent display
I/O	2 x Serial ports, support RS232/422/485, COM1 support wake function Support additional 4 x RS232 by LPC expansion
	1 x LPT, support SSP/EEP/ECP
	H61/B65: 10 x USB 2.0 PIN header Q67: 14 x USB 2.0 PIN header (4 x USB 2.0 by backplane)
	1 x PS/2
	8ch GPIO
	Audio, Mic-in, Line-in, Line-out
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	ATX power supply by backplane
Operating System	Win7, Win8, Win10, Win7E, Linux
Environment	Operating temperature: 0 ~ 60°C Storage temperature: -20 ~ 85°C Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	340.6mm x 145.7mm x 77.4mm

Ordering Information

P/N	Model	Description
0030-019991	EPE-1815V2NA-H61	EPE CPU card/Intel® H61/2DIMMs/4SATA/2LAN/2COM/10USB 2.0/VGA/DVI
0030-020361	EPE-1815V2NA-B65L	EPE CPU card/Intel® B65/2DIMMs/6SATA/2LAN/2COM/10USB 2.0/VGA/DVI/Support WinServer
0030-020431	EPE-1815V2NA-Q67L	EPE CPU card/Intel® Q67/2DIMMs/6SATA/RAID/2LAN/2COM/14USB 2.0/VGA/DVI/Support WinServer

EPE-1816 EPE Standard CPU Card (PICMG 1.3)

Brief Introduction

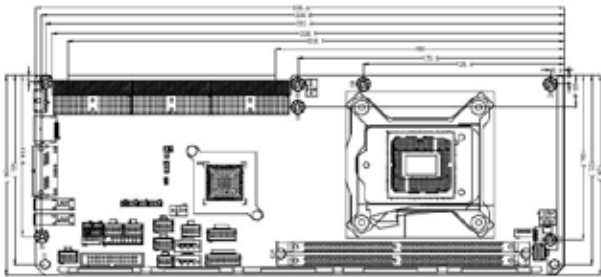
supports Intel® 6th/7th Gen Core™/Pentium®/Celeron® CPU and 2 x DDR4 DIMMS. The EPE rugged Bus makes it more reliable than traditional PICMG 1.3 gold finger structure. EPE-1816 and backplane are widely used in automation control, inspection, oil, transportation, surveillance and machine vision.



Features

- Intel® 6th/7th Gen Core™/Pentium®/Celeron® CPU
- 2 x DDR4 DIMMs up to 32GB RAM
- Up to 10 x USB, 2 x LAN and 6 x COM
- Multiple EPE backplane optional

Product size chart



(Company : MM)

Specifications

Items	Specification
Chipset	Intel® H110
CPU	Intel® 6th/7th Gen Core™/Pentium®/Celeron® CPU
Memory	2 x 288PIN DDR4 DIMMs, up to 32GB
Storage	4 x SATA 3.0 (2 by backplane)
LAN	2 x 10/100/1000Mbps RJ45 LAN1 support Wake-On-Lan, LAN2 support PXE boot
Display	Support VGA/DVI-D/DP and 2 independent display
I/O	2 x Serial ports, support RS232/422/485, COM1 support wake function Support additional 4 x RS232 by LPC expansion
	1 x LPT, support SSP/EEP/ECP
	4 x USB 3.0, 6 x USB 2.0 (4 by backplane)
	1 x PS/2
	8ch GPIO
	Audio, Mic-in, Line-in, Line-out
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	ATX power supply by backplane
Operating System	Win7, Win8, Win10, Win7E, Linux
Environment	Operating temperature: -20 ~ 60°C Storage temperature: -20 ~ 80°C Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	352.2mm x 141.6mm x 77.4mm

Ordering Information

P/N	Model	Description
0030-021671	EPE-1816	EPE CPU card/Intel® H110/2DIMMs/4SATA/2LAN/2COM/10USB/VGA/DVI/DP (H110 chipset doesn't support ISA bus)

EPE Backplane Selection Guide

Model	Slots	ISA	PCI	PCIE	Others
EPE-6105E2(V)	5	/	2	1 x PCIEx16 1 x PCIEx1	2 x SATA 4 x USB 2.0
EPE-6105E1	5	/	3	1 x PCIEx16	2 x SATA 4 x USB 2.0
EPE-6105P2	5	2	2	/	2 x SATA 4 x USB 2.0
EPE-6109E2	9	/	6	1 x PCIEx16 1 x PCIEx1	2 x SATA 4 x USB 2.0
EPE-6109E4	9	/	4	4 x PCIEx1	2 x SATA 4 x USB 2.0
EPE-6110E5(V)	10	/	4	1 x PCIEx16 4 x PCIEx1	2 x SATA 4 x USB 2.0
EPE-6111P6	11	3	6	1 x PCIEx16	2 x SATA 4 x USB 2.0
EPE-6111P8	11	2	8	/	2 x SATA 4 x USB 2.0
EPE-6111E6P4	11	/	4	2 x PCIEx16 4 x PCIEx4	2 x SATA 4 x USB 2.0
EPE-6112E5	12	/	6	2 x PCIEx16 4 x PCIEx4	2 x SATA 4 x USB 2.0
EPE-6112E7	12	/	4	1 x PCIEx16 4 x PCIEx4	2 x SATA 4 x USB 2.0
EPE-6113E2	13	/	10	1 x PCIEx16 1 x PCIEx4	2 x SATA 4 x USB 2.0
EPE-6113E4(V)	13	/	8	1 x PCIEx16 3 x PCIEx1	2 x SATA 4 x USB 2.0

Single Board Computer

Model	104-1816	104-1815	104-1649	EC3-1820	EC3-1821
Picture					
Form Factor	PC/104	PC/104	PC/104	3.5"	3.5"
Chipset	Intel® BayTrail	AMD® A55E + G series APU	AMD® Geode™ CS5536	Intel® BayTrail	Intel® Skylake-U
Processor	Intel® N2930/J1900	AMD® T16R, T40E, T56E	AMD® LX800	Intel® E3845/E3825/J1900	Intel® i7-6600U/i5-6300U/i3-6100U/Celeron 3955U
Memory	Onboard 4GB DDR3L	Onboard 1/2GB DDR3	Onboard 512MB DDR2	Onboard 4GB DDR3L	1 x 260 PIN DDR4 SODIMM Up to 16GB
Storage	2 x SATA 2.0	2 x SATA 2.0, 1 x CF card slot	1 x IDE, 1 x CF card slot, optional 1G NAND flash	1 x SATA 2.0 1 x mSATA 1 x Micro SD card slot	2 x SATA 3.0 1 x mSATA
Display	VGA+LVDS Support dual-display	VGA+LVDS +TTL+DVI Support dual-display	VGA+LVDS+TTL	VGA+HDMI+LVDS Support dual-display	VGA+HDMI+LVDS Support tri-display
Audio	Support Mic-in, Line-in, Line-out				
LAN	2 x 10/100/1000Mbps RJ45	2 x 10/100/1000Mbps RJ45	2 x 10/100Mbps	2 x 10/100/1000Mbps RJ45	2 x 10/100/1000Mbps RJ45
I/O	4 x USB 4 x Serial port 1 x PS/2 8ch GPIO	4 x USB 4 x Serial port 1 x PS/2 8ch GPIO	4 x USB 4 x Serial port 1 x PS/2 8ch GPIO	6 x USB 4 x Serial port 1 x PS/2 16ch GPIO	6 x USB 2 x Serial port 8ch GPIO
Expansion	1 x PCI-104	1 x PC/104 Plus	1 x PC/104 Plus	1 x Mini PCIE with SIM card slot	1 x Mini PCIE with SIM card slot 1 x MIOe port, optional 4 x LAN, 2 x USB, 4 x COM, 8ch GPIO and DVI-D
Operation Environment	0 ~ 60°C -40 ~ 85°C optional 5% ~ 95% non-condensing				
Storage Environment	-40 ~ 85°C 5% ~ 95% non-condensing				
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt				
Power Supply	DC 5V	DC 5V	DC 5V	DC 12V	DC 12V
OS Support	Win10, Win8, Win7, Linux	Win7, WinXP, Linux	Win7, WinXP, Linux	Win10, Win8, Win7, Linux	Win10, Win8, Win7, Linux
Dimension (W x H x D)	115.6 x 95.8 mm	116 x 97 mm	115.6 x 96.9 mm	146.1 x 101.6 mm	146.1 x 101.6 mm

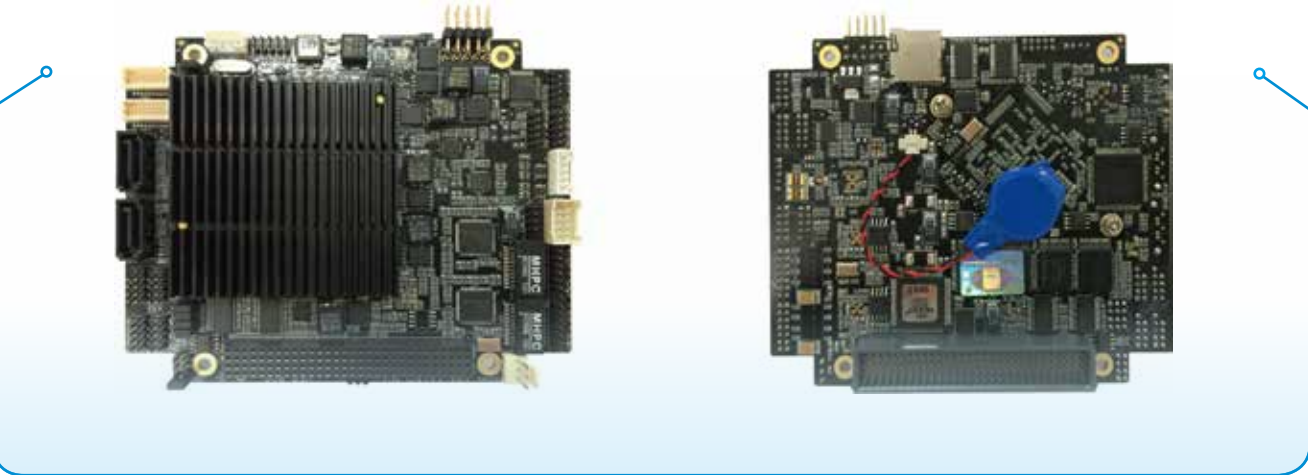
Single Board Computer

Model	COM-1818	COM-1817	COM-1816
Picture			
Form Factor	Type 6 Compact	Type 6 Compact	Type 6 Basic
Chipset	Intel® Skylake-U	Intel® BayTrail	Intel® QM87
Processor	Intel® i7/i5/i3/Celeron	Intel® E3845/E3825/J1900	Intel® i7/i5/i3
Memory	2 x 260 PIN DDR4 SODIMM, up to 32GB	2 x 204 PIN DDR3L SODIMM, up to 8GB	2 x 204 PIN DDR3L SODIMM, up to 16GB
Storage	2 x SATA 3.0	2 x SATA 2.0 1 x SD card slot Onboard 4GB flash	4 x SATA 3.0 RAID 0/1/5/10
Display	VGA+LVDS+DDI DDI support DP/HDMI/DVI	VGA+LVDS+DDI DDI support DP/HDMI/DVI	VGA+LVDS+TTL
Audio	Support Mic-in, Line-in, Line-out		
LAN	1 x 10/100/1000Mbps		
I/O	12 x USB 2 x Serial port 8ch GPIO	9 x USB 2 x Serial port 8ch GPIO	12 x USB 2 x Serial port 8ch GPIO
Expansion	1 x PCIe4 4 x PCIe1 SMBus/LPC	3 x PCIe1 SMBus/LPC	1 x PCIe16 7 x PCIe1 SMBus/LPC
Operation Environment	0 ~ 60°C -40 ~ 85°C optional 5% ~ 95% non-condensing		
Storage Environment	-40 ~ 85°C 5% ~ 95% non-condensing		
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt		
Power Supply	DC 12V or 5VSB+DC 12V		
OS Support	Win10, Win8, Win7, Linux		
Dimension (W x H x D)	95 x 95 mm	95 x 95 mm	125 x 95 mm

104-1816 PCI-104 SBC with Intel® BayTrail

Brief Introduction

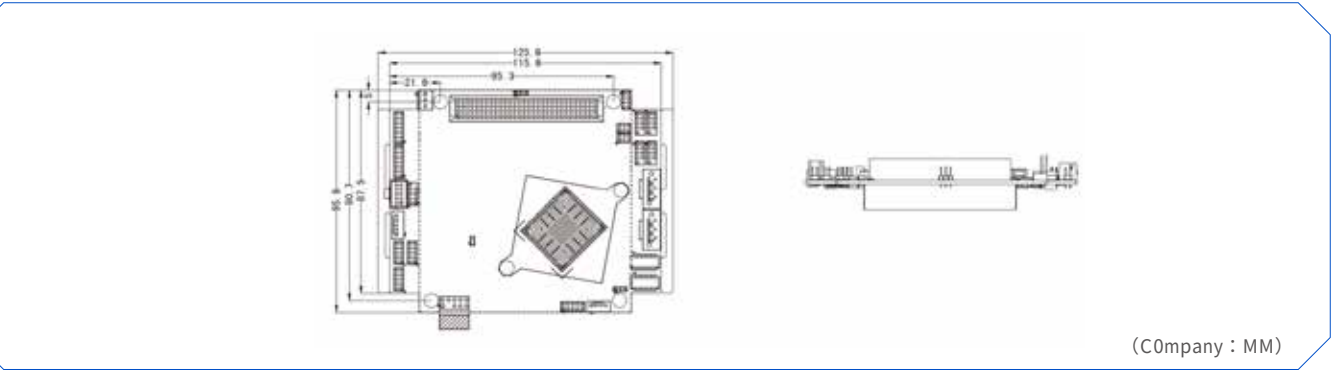
104-1816 is a 104 structure motherboard based on new-generation Intel® Atom® Bay Trail SoC platform. Its CPU adopts Future Intel® Celeron® processor for Intelligent Systems (based on 22nm Intel® Silvermont microarchitecture), with clock frequency of quad-core 1.83GHz and quad-core 2.0GHz. Its graphics core integrates INTEL 7th-generation graphics engine and two display tubes/cables, supporting DX11 and 3D output. Having various types of connectors and PCI-104 expansion slot, the product can be widely used in military industry, automation and electric power, etc.



Features

- Onboard Intel® BayTrail N2930
- Onboard 4GB DDR3L
- 2 x 10/100/1000Mbps
- Support VGA+LVDS
- Support PCI-104
- Support -40~85°C

Product size chart



Specifications

Items	Specification
Chipset	Intel® BayTrail
CPU	Intel® N2930/J1900/E3845/E3825
Memory	Onboard 4GB DDR3L
Storage	2 x SATA 2.0
LAN	2 x 10/100/1000Mbps network ports
I/O	1 x VGA, 1 x LVDS
	1 x USB 3.0, 3 x USB 2.0
	4 x Serial ports, COM1 support RS232/R422/485
	Audio, support Mic-in, Line-in, Line-out
	1 x PS/2
	1 x 8ch GPIO
Expansion	1 x PCI-104
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	DC 5V
Operating System	Win7, Win8, Win10, Win7E, Linux
Environment	Operating temperature: 0 ~ 60°C Optional -40~85°C Storage temperature: -40 ~ 85°C Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	115.6mm x 95.8mm

Ordering Information

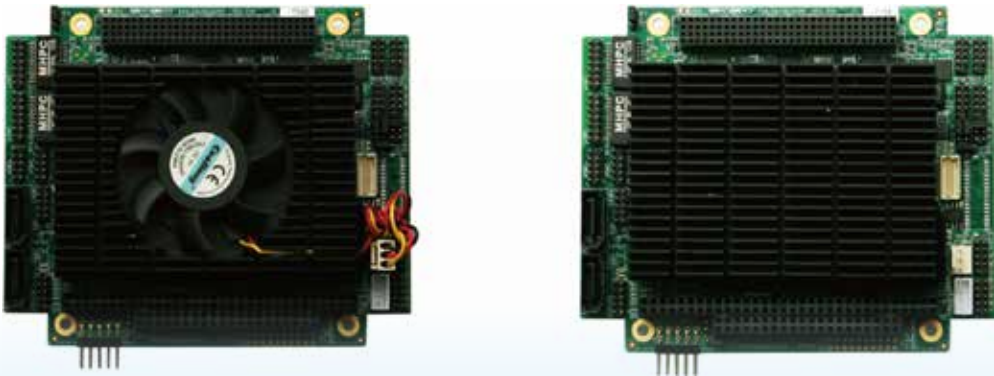
P/N	Model	Description
0030-020071	104-1816CL2NA	PCI-104/Intel® N2930/4GB DDR3L/VGA+LVDS/2 x SATA/2 x LAN/4 x USB/4 x COM/1 x PS2/8ch GPIO/Audio/DC 5V/0~60°C
0030-021131	104-1816CL2NA -40~85°C	PCI-104/Intel® N2930/4GB DDR3L/VGA+LVDS/2 x SATA/2 x LAN/4 x USB/4 x COM/1 x PS2/8ch GPIO/Audio/DC 5V/-40~85°C
0030-021021	104-1816-E3845 -40~85°C	PCI-104/Intel® E3845/4GB DDR3L/VGA+LVDS/2 x SATA/2 x LAN/4 x USB/4 x COM/1 x PS2/8ch GPIO/Audio/DC 5V/-40~85°C

104-1815

PC/104 SBC with AMD® A55E Chipset

Brief Introduction

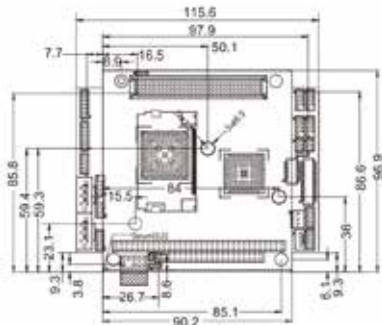
104-1815 is an embedded PC/104 structure industrial motherboard based on AMD embedded G-series processor + AMD A55E chipset. The motherboard features complete functions, multiple ports, wide temperature, high reliability and low power consumption. This product can be widely used in a wide range of embedded fields, such as traffic and transportation, vending machine, instrumentation and industrial sites, etc.



Features

- AMD® G series APU + A55E
- Support AMD® T16R/T40E/T56E CPU
- Onboard 1G/2G DDR3
- Support VGA/LVDS/DVI/TTL
- Support 2 x SATA and 1 x CF slot
- Support -40~85°C

Product size chart



(Company : MM)

Specifications

Items	Specification
Chipset	AMD® A55E + G series APU
CPU	AMD® T16R (615MHz), T40E (1.0GHz), T56E (1.65GHz)
Memory	Onboard 1/2GB DDR3
Storage	2 x SATA 2.0, 1 x CF card slot
LAN	2 x 10/100/1000Mbps network ports
I/O	1 x VGA, 1 x LVDS, 1 x DVI/TTL optional Support dual independent display
	4 x USB 2.0
	4 x Serial ports, COM1 support RS232/485
	Audio, support Mic-in, Line-in, Line-out
	1 x PS/2
	1 x 8ch GPIO
Expansion	1 x PC/104 Plus
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	DC 5V
Operating System	Win7, WinXP, Linux
Environment	Operating temperature: 0 ~ 60°C Optional -40~85°C Storage temperature: -40 ~ 85°C Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	116mm x 97mm

Ordering Information

P/N	Model	Description
0030-020071	104-1816CL2NA	PCI-104/Intel® N2930/4GB DDR3L/VGA+LVDS/2 x SATA/2 x LAN/4 x USB/4 x COM/1 x PS2/8ch GPIO/Audio/DC 5V/0~60°C
0030-021131	104-1816CL2NA -40~85°C	PCI-104/Intel® N2930/4GB DDR3L/VGA+LVDS/2 x SATA/2 x LAN/4 x USB/4 x COM/1 x PS2/8ch GPIO/Audio/DC 5V/-40~85°C
0030-021021	104-1816-E3845 -40~85°C	PCI-104/Intel® E3845/4GB DDR3L/VGA+LVDS/2 x SATA/2 x LAN/4 x USB/4 x COM/1 x PS2/8ch GPIO/Audio/DC 5V/-40~85°C

104-1649 PC/104-Plus SBC with AMD® LX800 CPU

Brief Introduction

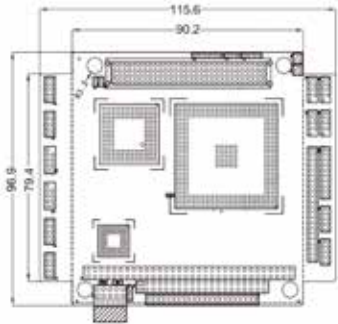
104-1649 series is an embedded PC/104-Plus motherboard with low power consumption. This motherboard has high integration, small volume, rich functions, low power consumption and it can be widely used in various embedded systems.



Features

- Integrate AMD® LX series CPU
- Onboard 512MB DDR2
- Support 2 x 10/100Mbps LAN
- Support VGA+LVDS, VGA+TFT dual-display
- IDE, CF slot or onboard 1G flash optional
- Support -40~85°C

Product size chart



(Company : MM)

Specifications

Items	Specification
Chipset	AMD® Geode™ CS5536
CPU	AMD® LX800 500MHz
Memory	Onboard 512MB DDR2
Storage	1 x IDE support 2 IDE devices 1 x CF card slot Onbaord 1G NAND flash (Slave as default) optional
LAN	2 x 10/100/Mbps network ports
I/O	1 x VGA, 1 x LVDS, 1 x TTL Support dual independent display
	4 x USB 2.0
	4 x Serial ports, 2 support RS232, 2 support RS422/485
	Audio, support Mic-in, Line-in, Line-out
	1 x PS/2
Expansion	1 x 8ch GPIO
	1 x PC/104 Plus
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	DC 5V
Operating System	Win7, WinXP, Linux
Environment	Operating temperature: 0 ~ 60°C Optional -40~85°C Storage temperature: -40 ~ 85°C Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	115.6mm x 96.9mm

Ordering Information

P/N	Model	Description
0030-013921	104-1649CLD2NA-8PIM	PC/104 Plus/AMD® LX800/512MB DDR2/2GB Flash/VGA+LVDS+TTL/IDE/2 x LAN/4 x USB/4 x COM/Audio/PS/2 /8ch GPIO/0 ~ 60°C
0030-013911	104-1649CLD2NA-8P	PCI-104/AMD® LX800/512MB DDR2/CF card slot/VGA+LVDS+TTL/IDE/2 x LAN/4 x USB/4 x COM/Audio/PS/2 /8ch GPIO/0 ~ 60°C
0030-085401	104-1649CLD2NA-8PI	PC/104 Plus/AMD® LX800/512MB DDR2/CF card slot/VGA+LVDS+TTL/IDE/2 x LAN/4 x USB/4 x COM/Audio/PS/2 /8ch GPIO/0 ~ 60°C

EC3-1820 3.5" SBC with Intel® BayTrail

Brief Introduction

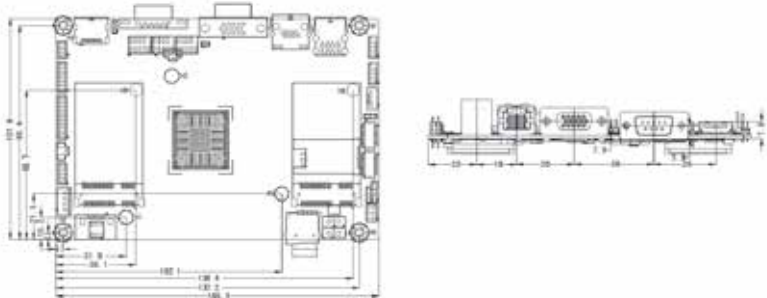
EC3-1820 is a 3.5-inch motherboard based on Intel® new-generation Atom Bay Trail SoC platform. Its CPU is Future Intel® Celeron® processor for Intelligent Systems (Based on 22nm Intel® Silvermont microarchitecture), clock frequency Quad-core 1.91GHz,Dual-core 1.33GHz and Quad-core 2.00GHz. Its graphics core integrates INTEL 7th generation graphics engine, with two display tubes, supporting DX11 and 3D output. EC3-1820 has multiple types of interfaces, and can be widely used in military industry, automation, electric power, and etc.



Features

- Onboard Intel® BayTrail E3845/ E3825/J1900 CPU
- Onboard 4GB DDR3L
- Support VGA+HDMI+LVDS
- Support SATA, mSATA and SD card slot
- Support Mini PCIE with SIM card holder
- Support -40~85°C

Product size chart



(CCompany : MM)

Specifications

Items	Specification
Chipset	Intel® BayTrail
CPU	Intel® E3845 1.91GHz, E3825 1.33GHz, J1900 2.0GHz
Memory	Onboard 4GB DDR3L
Storage	1 x SATA 2.0, 1 x mSATA, 1 x SD card slot (J1900 doesn't support SD)
LAN	1 x 10/100/1000 Mbps RJ45 1 x 10/100/1000 Mbps PIN header
I/O	1 x VGA, 1 x HDMI, 1 x LVDS Support dual independent display
	1 x USB 3.0, 5 x USB 2.0
	4 x Serial ports, 2 support RS232, 2 support RS232/422/485
	Audio, support Mic-in, Line-in, Line-out
	1 x PS/2
I/O	1 x 16ch GPIO
Expansion	1 x Mini PCIE with SIM card holder
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	DC 12V
Operating System	DC 12V Win10, Win8, Win7, Win7E, Linux
Environment	Operating temperature: 0 ~ 60°C Optional -40~85°C Storage temperature: -40 ~ 85°C Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	146.1mm x 101.6mm

Ordering Information

P/N	Model	Description
0030-021411	EC3-1820V2NA(B)-E3845	3.5"/Intel® E3845/Onboard 4GB DDR3L/SATA/mSATA/SD/VGA+HDMI+LVDS/2 x LAN/6 x USB/4 x COM/16ch GPIO/Audio/PS/2/Mini PCIE/SIM card slot/0 ~ 60°C
0030-022131	EC3-1820V2NA(B)-E3845 -40~85°C	3.5"/Intel® E3845/Onboard 4GB DDR3L/SATA/mSATA/SD/VGA+HDMI+LVDS/2 x LAN/6 x USB/4 x COM/16ch GPIO/Audio/PS/2/Mini PCIE/SIM card slot/-40 ~ 85°C
0030-21421	EC3-1820V2NA(B)-E3825	3.5"/Intel® E3825/Onboard 4GB DDR3L/SATA/mSATA/SD/VGA+HDMI+LVDS/2 x LAN/6 x USB/4 x COM/16ch GPIO/Audio/PS/2/Mini PCIE/SIM card slot/0 ~ 60°C
0030-022161	EC3-1820V2NA(B)-E3825 -40~85°C	3.5"/Intel® E3825/Onboard 4GB DDR3L/SATA/mSATA/SD/VGA+HDMI+LVDS/2 x LAN/6 x USB/4 x COM/16ch GPIO/Audio/PS/2/Mini PCIE/SIM card slot/-40 ~ 85°C
0030-021721	EC3-1820V2NA(B)-J1900	3.5"/Intel® J1900/Onboard 4GB DDR3L/SATA/mSATA/VGA+HDMI+LVDS/2 x LAN/6 x USB/4 x COM/16ch GPIO/Audio/PS/2/Mini PCIE/SIM card slot/0 ~ 60°C

EC3-1821 3.5" SBC with Intel® Skylake-U

Brief Introduction

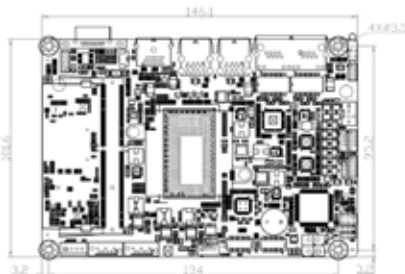
The motherboard adopts Intel® Skylake-U SOC processor. It contains one DDR4 SODIMM memory slot, supporting up to 16GB memory capacity. It also contains two onboard 10/100/1000Mbps network ports. It supports VGA, HDMI and LVDS display, and supports up to VGA/HDMI/LVDS three-channel simultaneous display. EC3-1821 family has abundant peripheral interface. The product supports two standard SATA interfaces, one mSATA interface, four USB3.0 ports, two USB2.0 ports, two COM ports (supporting RS-232/RS-422/RS-485), one standard MIC-IN/LINE-IN/LINE-OUT HDA audio port, one MPCIE slot and one self-define expansion port.



Features

- Onboard Intel® Skylake-U i7/i5/i3/ Celeron CPU
- Support up to 16GB memory
- Support VGA+HDMI+LVDS+DVI-D
- Support SATA, mSATA
- Support Mini PCIE with SIM card holder
- Support expansion board by MIOe port

Product size chart



(Company : MM)

Specifications

Items	Specification
Chipset	Intel® Skylake-U
CPU	Intel® i7-6600U 2.6GHz, i5-6300U 2.4GHz, i3-6100U 2.3GHz, 3955U 2.0GHz
Memory	1 x 260 PIN DDR4 SODIMM, up to 16GB
Storage	2 x SATA 3.0, 1 x mSATA
LAN	2 x 10/100/1000 Mbps RJ45
I/O	1 x VGA, 1 x HDMI, 1 x LVDS, 1 x DVI-D (optional) Support tri-independent display
	4 x USB 3.0, 2 x USB 2.0
	2 x Serial ports, support RS232/422/485
	Audio, support Mic-in, Line-in, Line-out
	1 x 8ch GPIO
	1 x 16ch GPIO
Expansion	1 x Mini PCIE with SIM card holder
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	DC 12V
Operating System	Win10, Win8, Win7, Win7E, Linux
Environment	Operating temperature: 0 ~ 60°C
	Optional -40~85°C
	Storage temperature: -40 ~ 85°C
	Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	146.1mm x 101.6mm

Expansion Board Specification

Port	MIOe
Display	DVI-D (shared with VGA on motherboard)
LAN	2 x 10/100/1000 Mbps RJ45 2 x 10/100/1000 Mbps wafer
I/O	2 x USB 3.0
	4 x Serial ports, support RS232
	1 x 8ch GPIO
Environment	Operating temperature: 0 ~ 60°C
	Optional -40~85°C
	Storage temperature: -40 ~ 85°C
	Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	146.1mm x 101.6mm

Ordering Information

P/N	Model	Description
0030-022211	EC3-1821-3955U	3.5"/Intel® Celeron® 3955U/1 x SODIMM/2 x SATA/mSATA/VGA+HDMI+LVDS/2 x LAN/6 x USB/2 x COM/8ch GPIO/Audio/Mini PCIE with SIM card slot/0 ~ 60°C
0030-022151	EC3-1821-i36100U	3.5"/Intel® i3-6100U/1 x SODIMM/2 x SATA/mSATA/VGA+HDMI+LVDS/2 x LAN/6 x USB/2 x COM/8ch GPIO/Audio/Mini PCIE with SIM card slot/0 ~ 60°C/MIOe port
0030-022641	EC3-1821-i36100U -40~85°C	3.5"/Intel® i3-6100U/1 x SODIMM/2 x SATA/mSATA/VGA+HDMI+LVDS/2 x LAN/6 x USB/2 x COM/8ch GPIO/Audio/Mini PCIE with SIM card slot/-40 ~ 85°C/MIOe port
0030-022221	EC3-1821-i56300U	3.5"/Intel® i5-6300U/1 x SODIMM/2 x SATA/mSATA/VGA+HDMI+LVDS/2 x LAN/6 x USB/2 x COM/8ch GPIO/Audio/Mini PCIE with SIM card slot/0 ~ 60°C/MIOe port
0030-022481	EC3-1821-i56300U -40~85°C	3.5"/Intel® i5-6300U/1 x SODIMM/2 x SATA/mSATA/VGA+HDMI+LVDS/2 x LAN/6 x USB/2 x COM/8ch GPIO/Audio/Mini PCIE with SIM card slot/-40 ~ 85°C/MIOe port
0030-022231	EC3-1821-i76600U	3.5"/Intel® i7-6600U/1 x SODIMM/2 x SATA/mSATA/VGA+HDMI+LVDS/2 x LAN/6 x USB/2 x COM/8ch GPIO/Audio/Mini PCIE with SIM card slot/0 ~ 60°C/MIOe port
0030-022401	EC3-1821-i76600U -40~80°C	3.5"/Intel® i7-6600U/1 x SODIMM/2 x SATA/mSATA/VGA+HDMI+LVDS/2 x LAN/6 x USB/2 x COM/8ch GPIO/Audio/Mini PCIE with SIM card slot/-40 ~ 80°C/MIOe port
0060-005071	EF-EIO-152	MIOe board/DVI-D/4 x LAN/4 x COM/2 x USB/8ch GPIO/DC

COM-1818 COM Express Type 6 Compact with Intel® Skylake-U

Brief Introduction

COM-1818 SERIES is a Type6 COM express motherboard based on Intel® SkyLake-U SoC platform. Its CPU adopts Skylake_U FCBGA1356 package, used together with dual-core I7-6600U 2.6GHz, dual-core I5-6300U 2.4GHz and quad-core I3-6100U 2.3GHZ and Celeron 3955U 2.0GHZ, onboard integrating graphics card Intel® HD Graphics 520. Used together with two DDR4 2133MHZ SO-DIMM memory slots, supporting up to 32GB in total, with single slot supporting up to 16GB. With multiple types of ports, COM-1818 SERIES can be widely used in military industry, automation, electric power and other fields. This board is a high-performance low-power embedded COM Express motherboard, and can meet the embedded application needs of various industries, including communication, military industry and medical care.



Features

Support Intel® Skylake-U i7/i5/i3/ Celeron CPU

Support 2 x SODIMM up to 32GB

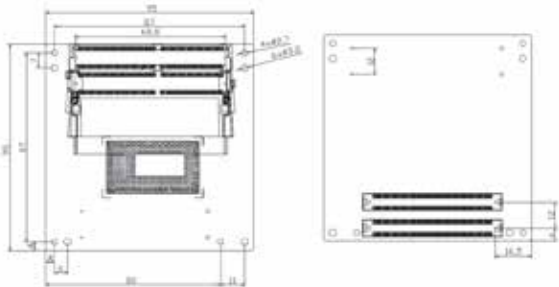
Support VGA+LVDS+DDI, tri-display

Support 1 x PCIe4 and 4 x PCIe1

Support DC 8.5V ~ 20V

Support -40~85°C

Product size chart



(Company : MM)

Specifications

Items	Specification
Chipset	Intel® Skylake-U
CPU	Intel® i7-6600U 2.6GHz, i5-6300U 2.4GHz, i3-6100U 2.3GHz, 3955U 2.0GHz
Memory	2 x 260 PIN DDR4 SODIMM, up to 32GB
Storage	2 x SATA 3.0
LAN	1 x 10/100/1000 Mbps, support wake-on-line
I/O	1 x VGA, 1 x LVDS, 1 x DDI (support DP/HDMI/DVI) Support tri-independent display
	4 x USB 3.0, 8 x USB 2.0
	2 x Serial ports, support RS232/422/485
	Audio, support Mic-in, Line-in, Line-out
Expansion	1 x 8ch GPIO
	1 x PCIe4, 4 x PCIe1, SMBus, LPC
	Watchdog Timer
	1 ~ 255sec/min timer system reset or interrupt
Power Supply	DC 8.5V ~ 20V
Operating System	Win10, Win8, Win7, Win7E, Linux
Environment	Operating temperature: 0 ~ 60°C Optional -40~85°C Storage temperature: -40 ~ 85°C Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	95mm x 95mm

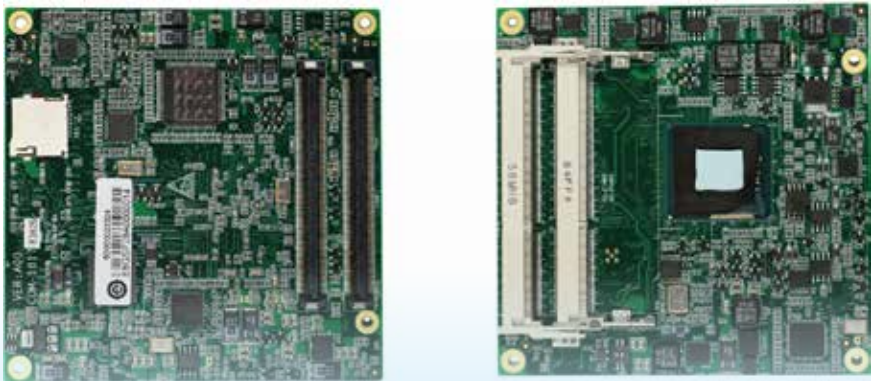
Ordering Information

P/N	Model	Description
0030-021801	COM-1818CLNAR-3955U	COME Type 6 Compact/Intel® 3955U/2 x SODIMM/2 x SATA/VGA+LVDS+DDI/LAN/12 x USB/2 x COM/8ch GPIO/Audio/1 x PCIe4/4 x PCIe1/SMBus/LPC
0030-021811	COM-1818CLNAR-I36100U	COME Type 6 Compact/Intel® i3-6100U/2 x SODIMM/2 x SATA/VGA+LVDS+DDI/LAN/12 x USB/2 x COM/8ch GPIO/Audio/1 x PCIe4/4 x PCIe1/SMBus/LPC
0030-021821	COM-1818CLNAR-I56300U	COME Type 6 Compact/Intel® i5-6300U/2 x SODIMM/2 x SATA/VGA+LVDS+DDI/LAN/12 x USB/2 x COM/8ch GPIO/Audio/1 x PCIe4/4 x PCIe1/SMBus/LP
0030-021781	COM-1818CLNAR-I76600U	COME Type 6 Compact/Intel® i7-6600U/2 x SODIMM/2 x SATA/VGA+LVDS+DDI/LAN/12 x USB/2 x COM/8ch GPIO/Audio/1 x PCIe4/4 x PCIe1/SMBus/LPC
1500-004391	Heat Sink	Heat Sink for COM-1818 series

COM-1817 COM Express Type 6 Compact with Intel® BayTrail

Brief Introduction

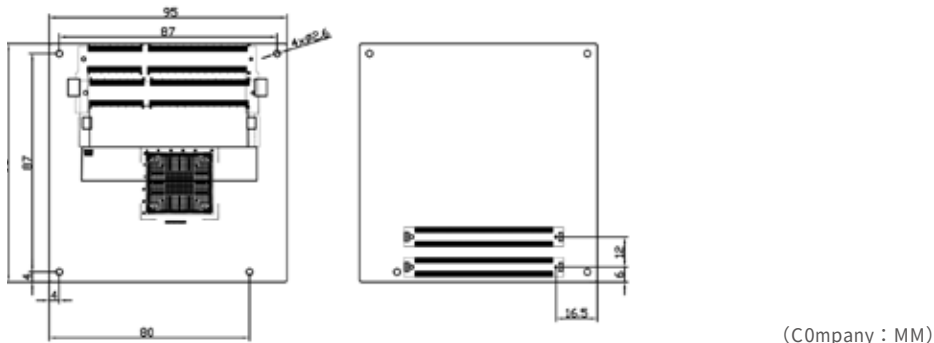
COM-1817 is a Type6 COM express motherboard based on Intel® new-generation Atom Bay Trail SoC platform. Its CPU adopts Future Intel® Celeron® processor for Intelligent Systems (Based on 22nm Intel® Silvermont microarchitecture), used together with quad-core E3845 1.91GHz, dual-core E3825 1.33GHz and quad-core J1900 2GHZ, graphics core integrating INTEL 7th-generation graphics engine, two display tubes, supporting DX11 and 3D output. Used together with two SO-DIMM modules, the product supports up to 8GB. With multiple types of ports, COM-1817 can be widely used in military industry, automation, electric power and other fields. This board is a high-performance low-power embedded COM Express motherboard, and can meet the embedded application needs of various industries, including communication, military industry and medical care.



Features

- Support Intel® BayTrail E3845/ E3825/J1900 CPU
- Support 2 x SODIMM up to 8GB
- Support VGA+LVDS+DDI, dual-display
- Support 3 x PCIe1 and SMBus, LPC
- Support DC 12V or 5VSB+12V
- Support -40~85°C

Product size chart



Specifications

Items	Specification
Chipset	Intel® BayTrail
CPU	Intel® E3845 1.91GHz, E3825 1.33GHz, J1900 2.0GHz
Memory	2 x 204 PIN DDR3L SODIMM, up to 8GB
Storage	2 x SATA 2.0, 1 x SD card slot (J1900 doesn't support)
LAN	1 x 10/100/1000 Mbps, support wake-on-line
I/O	1 x VGA, 1 x LVDS, 1 x DDI (support DP/HDMI/DVI) Support dual-independent display
	1 x USB 3.0, 8 x USB 2.0
	2 x Serial ports, support RS232/422/485
	Audio, support Mic-in, Line-in, Line-out
Expansion	1 x 8ch GPIO
	3 x PCIe1, SMBus, LPC
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	DC 12V or 5VSB+12V
Operating System	Win10, Win8, Win7, Win7E, Linux
Environment	Operating temperature: 0 ~ 60°C Optional -40~85°C Storage temperature: -40 ~ 85°C Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	95mm x 95mm

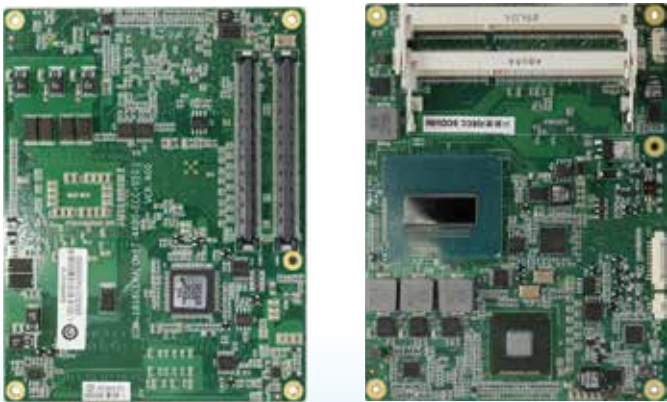
Ordering Information

P/N	Model	Description
0030-021051	COM-1817-J1900	COME Type 6 Compact/Intel® J1900/2 x SODIMM/2 x SATA/VGA+LVDS+DDI/LAN/9 x USB/2 x COM/8ch GPIO/Audio/3 x PCIe1/SMBus/LPC/0 ~ 60°C
0030-021041	COM-1817-E3845	COME Type 6 Compact/Intel® E3845/2 x SODIMM/2 x SATA/VGA+LVDS+DDI/LAN/9 x USB/2 x COM/8ch GPIO/Audio/3 x PCIe1/SMBus/LPC/0 ~ 60°C
0030-021031	COM-1817-E3825	COME Type 6 Compact/Intel® E3825/2 x SODIMM/2 x SATA/VGA+LVDS+DDI/LAN/9 x USB/2 x COM/8ch GPIO/Audio/3 x PCIe1/SMBus/LPC/0 ~ 60°C
1030-100761	Heat Sink	Heat Sink for COM-1817 series

COM-1816 COM Express Type 6 Basic with Intel® QM87

Brief Introduction

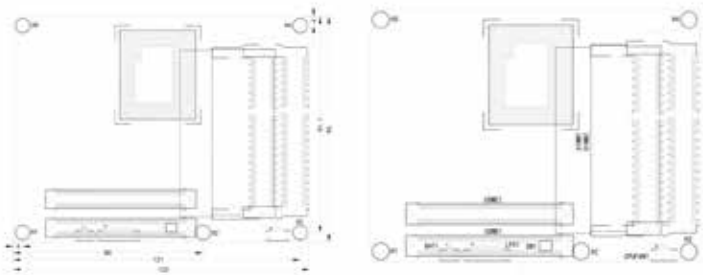
COM-1816 series is a high-performance embedded Type6 basic model COM Express module developed based on Intel® QM87 chipset. It is compliant with PICMG COM.0 R2.1 specifications, and adopts 4th-generation Intel® Core™ i7/i5/i3 high-performance mobile processor.



Features

- Support Intel® 4th Gen Core i7/i5/i3 CPU
- Support 2 x SODIMM up to 16GB
- Support VGA+LVDS+DDI, dual-display
- Support 1 x PCIe16 and 7 x PCIe1
- Support DC 12V or 5VSB+12V
- Support -40~85°C

Product size chart



(Company : MM)

Specifications

Items	Specification
Chipset	Intel® QM87
CPU	Intel® i7-4700EQ 2.4GHz, i5-4400E 2.7GHz, i3-4110E 2.6GHz
Memory	2 x 204 PIN DDR3L SODIMM, up to 16GB
Storage	4 x SATA 3.0, RAID 0/1/5/10
LAN	1 x 10/100/1000 Mbps, support wake-on-line
I/O	1 x VGA, 1 x LVDS, 1 x DDI (support DP/HDMI/DVI) Support dual-independent display
	4 x USB 3.0, 8 x USB 2.0
	2 x Serial ports, support RS232/422/485
	Audio, support Mic-in, Line-in, Line-out
	1 x 8ch GPIO
Expansion	1 x PCIe16, 7 x PCIe1, SMBus, LPC
Watchdog Timer	1 ~ 255sec/min timer system reset or interrupt
Power Supply	DC 12V or 5VSB+12V
Operating System	Win10, Win8, Win7, Win7E, Linux
Environment	Operating temperature: 0 ~ 60°C Optional -40~85°C Storage temperature: -40 ~ 85°C Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	125mm x 95mm

Ordering Information

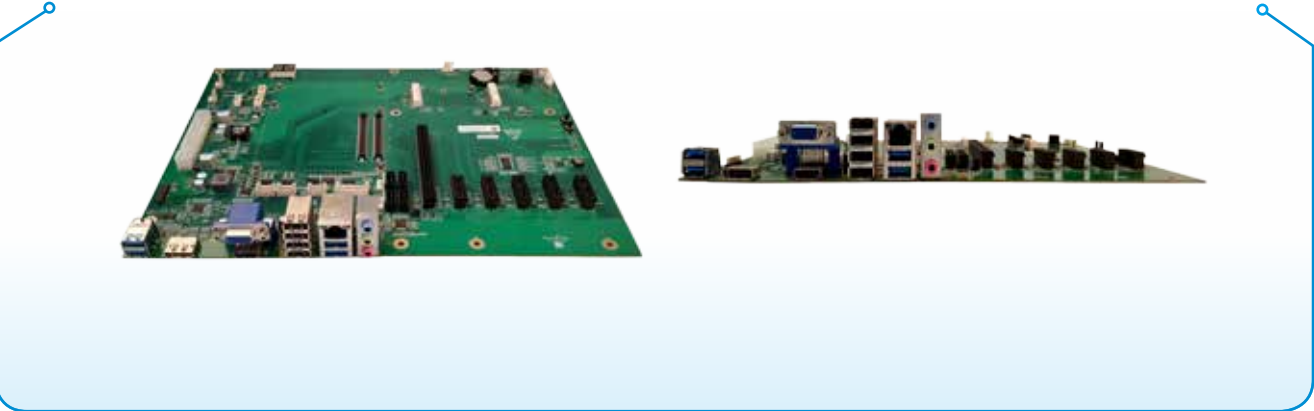
P/N	Model	Description
0030-020791	COM-1816CLNA-I34110E	COME Type 6 Compact/Intel® i3-4110E/2 x SODIMM/4 x SATA/VGA+LVDS+DDI/LAN/12 x USB/2 x COM/8ch GPIO/Audio/1 x PCIe16/7 x PCIe1/SMBus/LPC/0 ~ 60°C
0030-020781	COM-1816CLNA-I54400E	COME Type 6 Compact/Intel® i5-4400E/2 x SODIMM/4 x SATA/VGA+LVDS+DDI/LAN/12 x USB/2 x COM/8ch GPIO/Audio/1 x PCIe16/7 x PCIe1/SMBus/LPC/0 ~ 60°C
0030-020671	COM-1816CLNA-I5-4400E-ECC	COME Type 6 Compact/Intel® i5-4400E/2 x SODIMM/4 x SATA/VGA+LVDS+DDI/LAN/12 x USB/2 x COM/8ch GPIO/Audio/1 x PCIe16/7 x PCIe1/SMBus/LPC/0 ~ 60°C Support ECC memory
1500-002131	Heat Sink	Heat Sink for COM-1816 series

EDB-COM08

COM Express Type 6 Carrier Board

Brief Introduction

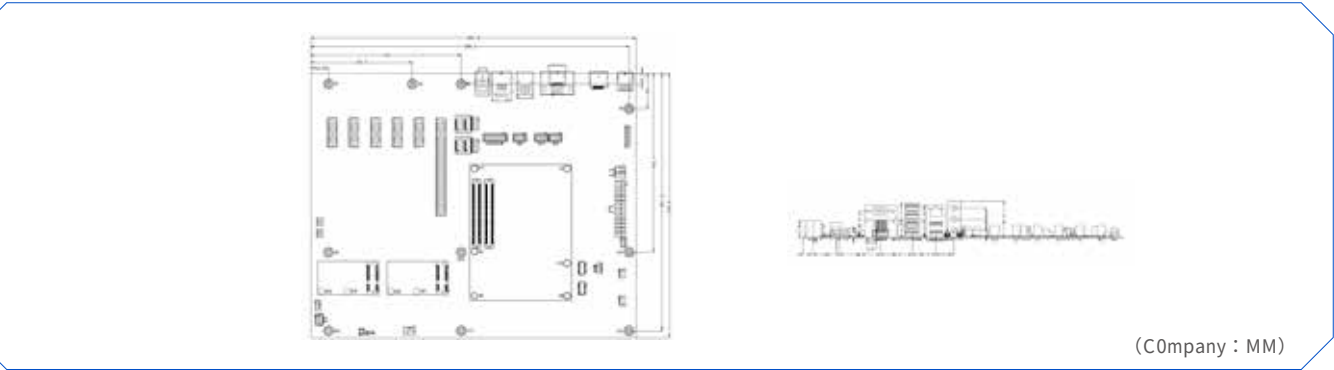
EDB-COM08 is a Type6 COM-Express standard carrier compliant with COM Express 2.0 specification; it is compatible with EVOC COM Express board. This product is free to be combined, convenient to be updated and can shorten the developing period for users; can reduce the cost for second development; has abundant expansion connectors; so that it can be widely used in the fields of medical treatment and healthy, laboratory, industrial control, intelligent building, car electronics and spaceflight, etc.



Features

- Support COM Express Type 6 Basic and Compact
- Provide 1 x PCIe16, 5 x PCIe1 and 2 x Mini PCIE
- Provide 4 x SATA
- Support VGA+DVI+HDMI+DP+LVDS
- Support DC 12V or 5VSB+12V
- Support 8 x USB/2 x COM/16ch GPIO/8ch GPIO

Product size chart



Specifications

Items	Specification
Form Factor	ATX
Storage	4 x SATA
LAN	1 x 10/100/1000 Mbps RJ45
I/O	1 x VGA, 1 x HDMI, 1 x DP onboard 1 x DVI, 1 x LVDS PIN header
	4 x USB 3.0, 4 x USB 2.0
	2 x three- line serial ports, support RS232
	Audio, support Mic-in, Line-in, Line-out
	1 x 16ch GPIO, 1 x 8ch GPIO
Expansion	1 x PCIe16, 5 x PCIe1 2 x Mini PCIE
Power Supply	DC 12V or 5VSB+12V
Operating System	According to core board
Environment	Operating temperature: 0 ~ 60°C Storage temperature: -40 ~ 85°C Humidity: 5% ~ 95% Non-condensing
Dimensions(L x W)	304.8mm x 243.8mm

Ordering Information

P/N	Model	Description
0050-001591	EDB-COM08	COME Type 6 Carrier board/VGA+DVI+HDMI+DP+LVDS/4 x SATA/LAN/8 x USB/2 x COM/16ch GPIO/8ch GPIO/DC 12V or 5VSB+12V

Compact PCI Blade Selection Guide

Model		CPC-3815B	CPC-3816B	CPC-1817B	CPC-1818
Image					
System	System	Intel® BayTrail	Intel® CM236	Intel® QM87	Intel® CM236
	CPU	Intel® Atom® E3845	Intel® Core™ i7-6822EQ/ i3-6102E	Intel® Core™ i5-4400E	Intel® Core™ i7-6822EQ
	RAM	Onboard 4G	Onboard 4G	Onboard 8G	Onboard 8G
I/O	LAN	Front: 2 x 10/100/1000Mbps RJ45 Rear: 2 x 10/100/1000Mbps RJ45 to rear I/O Front and rear are alternative	Front: 2 x 10/100/1000Mbps RJ45 Rear: 2 x 10/100/1000Mbps RJ45	Front: 2 x 10/100/1000Mbps RJ45 Rear: 3 x 10/100/1000Mbps RJ45	Front: 1 x 10/100/1000Mbps RJ45 Rear: 2 x 10/100/1000Mbps RJ45
	USB	Front: 1 x USB 3.0, 1 x USB 2.0 Rear: 2 x USB 2.0	Fron: 2 x USB 3.0 Rear: 2 x USB 2.0	Front: 2 x USB 3.0 Rear: 2 x USB 2.0	Fron: 2 x USB 3.0, 1 x USB 2.0 Rear: 2 x USB 2.0
	COM	Front: 1 x DB9 support RS232/422/485 Rear: 1 x DB9 support RS232/422/485	Front: 1 x DB9 support RS232/422/485 Rear: 1 x DB9 support RS232	Front: 1 x RJ45 support RS23 Rear: 1 x DB9 support RS232/422/485	Rear: 4 x DB9 support RS232/422/485
	VGA	Front: 1 x DB15 Rear: 1 x DB15	Front: 1 x DB15 Rear: 1 x DB15	Front: 1 x DB15	Front: 1 x DB15 Rear: 1 x DB15
	DVI	/	/	Rear: 1 x DVI-D, 1 x DVI-I	/
	HDMI	/	/	/	/
	DP	/	Front: 1 x DP	/	/
	PS/2	Front: 1 x PS/2 KB/MS	Front: 1 x PS/2 KB/MS	Front or Rear: 1 x PS/2 KB/MS	Front or Rear: 1 x PS/2 KB/MS
	Audio	Front: Line-out, Mic-in	/	Rear: Line-out, Mic-in, line-in	Rear: Line-out, Mic-in, line-in
Expansion	PMC	1, optional	/	1	/
Storage	SATA	Onboard 16GB SSD 1 x SATA 2.0 (Front or rear)	Onboard 16GB or mSATA 3 x SATA 3.0	Onboard 16GB SSD 3 x SATA 3.0	5 x SATA 3.0
	mSATA	/	Onboard 16GB or mSATA	/	/
Operation Environment		-40 ~ 60°C (Fanless) -40 ~ 85°C (Fan)	-25 ~ 55°C (Fanless)	-20 ~ 70°C (Fanless)	-25 ~ 55°C (Fanless)
Storage Environment		-45 ~ 85°C	-40 ~ 85°C	-40 ~ 85°C	-40 ~ 85°C
Power		CPCI Power Supply	CPCI Power Supply	CPCI Power Supply	CPCI Power Supply

Compact PCI System Selection Guide

Model		CPC-3414B	CPC-8204B	CPC-8408B
Image				
Form Factor		4U 19" rackmount Support 14 x 3U slots	2U 19" rackmount Support 2 x 6U slots	4U 19" rackmount Support 4 x 6U slots
Structure		Stainless steel, black print	Stainless steel, black print	Stainless steel, black print Support 2 x 2.5" drawable SATA bay Support 1 x surveillance module
Power Supply		Redundant CPCI PSU	Redundant CPCI PSU	Redundant CPCI PSU
Cooling System		8 x axis fans	3 x axis fans	5 x axis fans
Operation Environment		0 ~ 50°C	-20 ~ 50°C	-5 ~ 55°C
Storage Environment		-20 ~ 60°C	-40 ~ 85°C	-40 ~ 85°C
Specification		PICMG 2.0 R3.0 PICMG 2.1 R2.0	PICMG 2.0 R3.0 PICMG 2.1 R2.0	PICMG 2.0 R3.0 PICMG 2.1 R2.0 PICMG 2.10 R1.0 PICMG 2.11 R1.0
Dimension (WxWxH)		440 x 298 x 177 mm	486 x 376 x 88 mm	481 x 400 x 177mm

CPC-3815B 3U CompactPCI® Blade with Intel® BayTrail

Brief Introduction

CPC-3815B is a standard 3U CompactPCI motherboard, Based on Intel new-generation low-power high-performance Atom CPU. Its graphics core integrates Intel® 7th generation graphics engine, with two display tubes, supporting DX11 and 3D output. This board has one VGA display port, one USB3.0 port, two GbE LAN ports, and provides 4GB onboard DDR3 1333/1600MT/s memory. Can be used together CPC-3815B-PMC, CPC-3815B-IO, CPC-RP3815B and other IO boards for expansion.



Features

Adopt Intel® BayTrail E3845 Soc

Onboard 4GB DDR3L and 16GB SSD

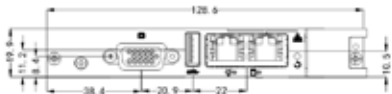
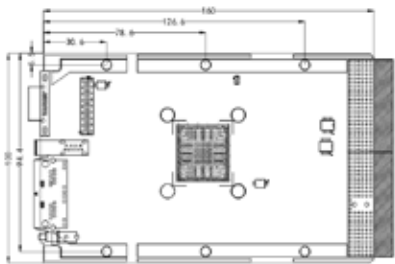
Optional 4HP/8HP/PMC version

Support fanless environment for -40~60°C

Optional -40~85°C

Meet EN50155

Product size chart



(Company : MM)

Specifications

Items	Specification
Chipset	Intel® BayTrail
CPU	Intel® E3845 1.91GHz
Memory	Onboard 4GB DDR3L
Standards	PICMG® 2.0 R3.0
CompactPCI® Bus	32bit/64bit, 33/66MHz
Storage	Onboard 16GB SSD 1 x SATA 2.0 (Optional front panel or rear I/O)
LAN	2 x 10/100/1000Mbps network ports (Optional front panel or rear I/O)
Display	Front panel: 1 x USB 3.0, 1 x USB 2.0 Rear I/O: 2 x USB 2.0
USB	Front panel: 1 x USB 3.0, 1 x USB 2.0 Rear I/O: 2 x USB 2.0
Serial Port	Front panel: 1 x COM support RS232/422/485 Rear I/O: 1 x COM support RS232/422/485
Audio	Front Panel: Mic-in, Line-out
PS/2	1 x PS/2 KB/MS
Expansion	1 x PMC optional
Power Supply	CPCI Power Supply, support S0, S5
Operating System	Win7, Win8, Win10, VxWorks 6.9, Linux
Mechanical	Form Factor:3U 4/8HP CompactPCI® Shock:20g, 11ms Vibration (5~200Hz): 1.5g (operation); 2.0g (storage)
Environment	Operating temperature: -40 ~ 60°C (Fanless) Optional -40~85°C (With fan) Storage temperature: -45 ~ 85°C Humidity: 10% ~ 95% Non-condensing
Dimensions (L x W x H)	165mm x 128.6mm x 40.4mm (CPC-3815B-02/03/04/05) 165mm x 128.6mm x 19.9mm (CPC-3815B-01) 160mm x 100mm x 15.4mm (CPC-3815B-MIL)

Ordering Information

P/N	Model	Description
0030-021751	CPC-3815B-01	4HP 3U CompactPCI®/Intel® E3845/4G DDR3L/16G SSD/1 x VGA/2 x LAN/1 x USB 3.0
0030-022011	CPC-3815B-02	8HP 3U CompactPCI®/Intel® E3845/4G DDR3L/SATA/1 x VGA/2 x LAN/1 x USB 3.0/1 x USB 2.0/1 x COM/1 x PS/2/Mic-in/Line-out
0030-021761	CPC-3815B-03	8HP 3U CompactPCI®/Intel® E3845/4G DDR3L/16G SSD/SATA/1 x VGA/2 x LAN/1 x USB 3.0/1 x USB 2.0/1 x COM/1 x PS/2/Mic-in/Line-out
0030-022021	CPC-3815B-04	8HP 3U CompactPCI®/Intel® E3845/4G DDR3L/1 x VGA/2 x LAN/1 x USB 3.0/PMC
0030-022031	CPC-3815B-05	8HP 3U CompactPCI®/Intel® E3845/4G DDR3L/16G SSD/1 x VGA/2 x LAN/1 x USB 3.0/PMC
0030-022041	CPC-3815B-MIL	4HP 3U CompactPCI®/Intel® E3845/4G DDR3L/16G SSD/Rear I/O: SATA/1 x VGA/2 x LAN/2 x USB 2.0/2 x COM/1 x PS/2
0060-005021	CPC-RP3815B	8HP Rear I/O: SATA/1 x VGA/2 x LAN/2 x USB 2.0/1 x COM

CPC-3816B 3U CompactPCI® Blade with Intel® CM236

Brief Introduction

CPC-3816B is a standard 3U CompactPCI motherboard, based on Intel 6th generation high performance CPUs, graphics core integrating Intel® HD Graphics engine, supporting DX11 and 3D output. This board has two VGA display ports, one DP display port, two USB3.0/USB2.0 ports, two USB2.0 ports, two COM ports, three SATA3.0 interfaces, one onboard SSD, four GbE LAN ports, and provides 8GB onboard DDR4 2133MT/s non-ECC memory.



Features

Adopt Intel® CM236 platform

Onboard Intel® 6th Gen i7/i3 CPU

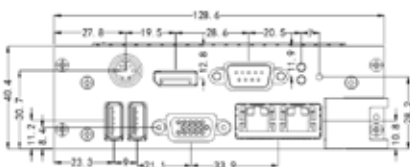
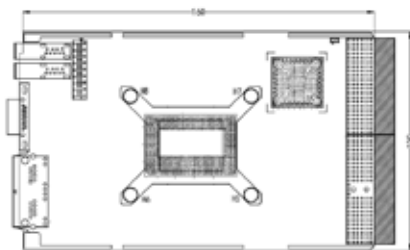
Onboard 8GB DDR4 and 16GB SSD

2 x VGA and 1 x DP, support tri-independent display

Support fanless environment for -20~55°C

Meet EN50155

Product size chart



(Company : MM)

Specifications

Items	Specification
Chipset	Intel® CM236
CPU	Intel® Core™ i7-6822EQ 2.0GHz, i3-6102E 1.9GHz
Memory	Onboard 8GB DDR4 2133MHz, support dual-channel
Standards	PICMG® 2.0 R3.0
CompactPCI® Bus	32bit/64bit, 33/66MHz
Storage	Onboard 16GB SSD or mSATA 3 x SATA 3.0
LAN	Front panel: 2 x 10/100/1000Mbps network ports Rear I/O: 2 x 10/100/1000Mbps network ports
Display	Front panel: 1 x VGA, 1 x DP Rear I/O: 1 x VGA
USB	Front panel: 2 x USB 3.0 Rear I/O: 2 x USB 2.0
Serial Port	Front panel: 1 x COM support RS232/422/485 Rear I/O: 1 x COM support RS232
Audio	Rear I/O: Mic-in, line-in, line-out
PS/2	Front panel: 1 x PS/2 KB/MS
Power Supply	CPCI Power Supply, support S0, S5
Operating System	Win7, Win8, Win10, VxWorks 6.9, Linux
Mechanical	Form Factor: 3U 8HP CompactPCI® Shock: 20g, 11ms Vibration (5~200Hz): 1.5g (operation); 2.0g (storage)
Environment	Operating temperature: -25 ~ 55°C (Fanless) Storage temperature: -40 ~ 85°C Humidity: 10% ~ 95% Non-condensing
Dimensions (L x W x H)	165mm x 128.6mm x 40mm

Ordering Information

P/N	Model	Description
0030-021351	CPC-3816B-01	3U 8HP CompactPCI®/Intel® i7-6822EQ/8GB DDR4/16GB SSD/1 x SATA/1 x VGA/1 x DP/2 x LAN/2 x USB 3.0/1 x COM/1 x PS/2
0030-021361	CPC-3816B-02	3U 8HP CompactPCI®/Intel® i3-6102E/8GB DDR4/mSATA/1 x SATA/1 x VGA/1 x DP/2 x LAN/2 x USB 3.0/1 x COM/1 x PS/2
0030-021571	CPC-3816B-03	3U 8HP CompactPCI®/Intel® i7-6822EQ/8GB DDR4/mSATA/1 x SATA/1 x VGA/1 x DP/2 x LAN/2 x USB 3.0/1 x COM/1 x PS/2
0030-021581	CPC-3816B-04	3U 8HP CompactPCI®/Intel® i3-6102E/8GB DDR4/16GB SSD/1 x SATA/1 x VGA/1 x DP/2 x LAN/2 x USB 3.0/1 x COM/1 x PS/2
0060-005001	CPC-RP3816B	Rear I/O: 2 x SATA/1 x VGA/2 x LAN/2 x USB 2.0/1 x COM

CPC-1817B 6U CompactPCI® Blade with Intel® QM87

Brief Introduction

CPC-1817B SERIES is a standard 6U CompactPCI motherboard, which is based on Intel® Shark bay platform. It adopts low-power 4th generation i5 CPU and QM87 Express Chipset chipset, 8G DDR3L ECC memory, and supports VGA+ dual-DVI display output, up to six 1000Mbps Ethernet ports, onboard 16G SSD (expandable to 32G SSD storage), onboard SATA HDD or CF card slot, RAID 0/1, and supports USB3.0 and multiple IO ports to meet the needs of various applications.



Features

Adopt Intel® QM87 platform

Onboard Intel® 4th Gen i5-4400E CPU

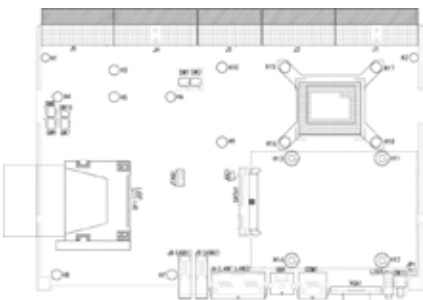
Onboard 8GB DDR4 and 16GB SSD

1 x VGA and 2 x DVI

Support operation -20~70°C

Meet PICMG® 2.0 R3.0, 2.1 R2.0, 2.16 R1.0

Product size chart



(Company : MM)

Specifications

Items	Specification
Chipset	Intel® QM87
CPU	Intel® Core™ i5-4400E 2.7GHz
Memory	Onboard 8GB DDR3L 1333MHz
Standards	PICMG® 2.0 R3.0 CompactPCI® Specification PICMG® 2.1 R2.0 CompactPCI® Hot Swap Specification PICMG® 2.16 R1.0 CompactPCI® Packet Switching Backplane Specification
CompactPCI® Bus	32bit/64bit, 33/66MHz
Storage	Onboard 16GB 3 x SATA 3.0, 1 x CF card slot
LAN	Front panel: 2 x 10/100/1000Mbps network ports Rear I/O: 3/4 x 10/100/1000Mbps network ports
Display	Front panel: 1 x VGA Rear I/O: 1 x DVI-I, 1 x DVI-D
USB	Front panel: 2 x USB 3.0 Rear I/O: 2 x USB 2.0
Serial Port	Front panel: 1 x COM support RS232, RJ45 connector Rear I/O: 1 x COM support RS232/422/485, DB9 connector
Audio	Rear I/O: Mic-in, line-in, line-out
PS/2	1 x PS/2 KB/MS (Front panel or rear I/O)
Expansion	1 x PMC, 1 x XMC (PCIEx8 2.0)
Power Supply	CPCI Power Supply, support S0, S5
Operating System	Win7, Win8, Win10, VxWorks 6.9, Linux
Mechanical	Form Factor: 6U 4HP CompactPCI® Shock: 20g, 11ms Vibration (5~200Hz): 1.5g (operation); 2.0g (storage)
Environment	Operating temperature: -20 ~ 70°C (Fanless) Storage temperature: -40 ~ 85°C Humidity: 10% ~ 95% Non-condensing
Dimensions (L x W x H)	233.4mm x 162mm x 20.3mm

Ordering Information

P/N	Model	Description
0030-020451	CPC-1817B-CF Conformal coating	6U 4HP CompactPCI®/Intel® i5-4400E/8GB DDR3L/1 x CF/1 x SATA/1 x VGA/2 x LAN/2 x USB 3.0/1 x COM/1 x PS/2
0030-020441	CPC-1817B-XMC Conformal coating	6U 4HP CompactPCI®/Intel® i5-4400E/8GB DDR3L/16G SSD/1 x SATA/1 x VGA/2 x LAN/2 x USB 3.0/1 x COM/1 x PS/2/PMC/XMC
0060-004731	CPC-RP807 Conformal coating	Rear I/O: 2 x SATA/DVI-I/DVI-D/2 x LAN/2 x USB 2.0/1 x COM/1 x PS/2/Mic-in/Line-in/Line-out
0060-004951	CPC-RP807 Conformal coating	Rear I/O: 2 x SATA/DVI-I/DVI-D/4 x LAN/2 x USB 2.0/1 x COM/1 x PS/2/Mic-in/Line-in/Line-out

CPC-1818

6U CompactPCI® Blade with Intel® CM236

Brief Introduction

CPC-1818 SERIES is a standard 6U CompactPCI motherboard, which is based on Intel® Skylake platform. It adopts low-power 6th generation i7 CPU and CM236 Express Chipset chipset, 8G DDR4 memory, and supports dual VGA display output, 3 x 1000Mbps Ethernet ports, 4 x serial ports and 5 x USB ports. CPC-1818 SERIES is design to meet military on-vehicle, ship-borne, air-borne, star-borne, missile-borne and rail transportation.



Features

Adopt Intel® CM236 platform

Onboard Intel® 6th Gen i7-6822EQ CPU

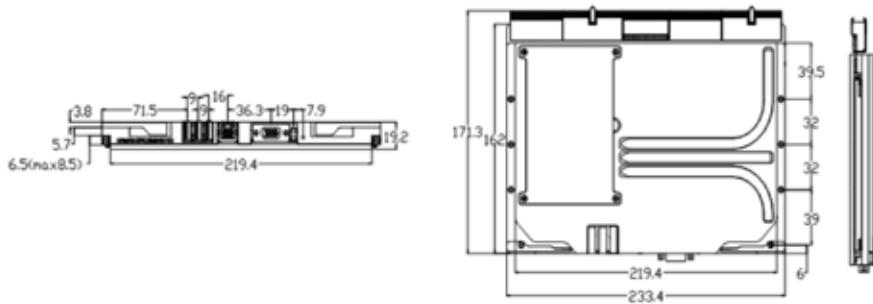
Onboard 8GB DDR4

2 x VGA support dual-independent display

Support operation -25~55°C fanless, extend grade optional

Meet PICMG® 2.0 R3.0

Product size chart



(Company : MM)

Specifications

Items	Specification	
Chipset	Intel® CM236	
CPU	Intel® Core™ i7-6822EQ 2.0GHz	
Memory	Onboard 8GB DDR4 2133MHz	
Standards	PICMG® 2.0 R3.0 CompactPCI® Specification	
CompactPCI® Bus	32bit/64bit, 33/66MHz	
Storage	5 x SATA 3.0	
LAN	Front panel:	1 x 10/100/1000Mbps network ports
	Rear I/O:	2 x 10/100/1000Mbps network ports
Display	Front panel:	1 x VGA
	Rear I/O:	1 x VGA
USB	Front panel:	2 x USB 3.0, 1 x USB 2.0
	Rear I/O:	2 x USB 2.0
Serial Port	Rear I/O:	4 x COM support RS232/422/485, DB9 connector
Audio	Rear I/O:	Mic-in, line-in, line-out
PS/2	1 x PS/2 KB/MS (Front panel or rear I/O)	
Expansion	1 x PMC, 1 x XMC (PCIEx8 2.0)	
Power Supply	CPCI Power Supply, support S0, S5	
Operating System	Win7, Win8, Win10, VxWorks 6.9, Linux	
Mechanical	Form Factor:	6U 4HP CompactPCI®
	Shock:	20g, 11ms
	Vibration (5~200Hz):	1.5g (operation); 2.0g (storage)
Environment	Operating temperature: -25 ~ 55°C (Fanless)	
	Storage temperature: -40 ~ 70°C	
	Humidity: 10% ~ 95% Non-condensing	
Dimensions (L x W x H)	233.4mm x 162mm x 19.2mm	

CPC-3414B 4U 14-slot CompactPCI® System with Redundant Power Supply

Brief Introduction

CPC-3414B is a 4U 14-slot 3U CompactPCI board system, standard 19" rack-mount PC, which supports to install add-in cards from both front and rear of the chassis. The product provides one system slot and thirteen expansion slots. The chassis features excellent EMC performance, immunity to interference, compact structure, reliable interconnection, excellent anti-vibration and anti-shock performance. It is highly reliable and quite convenient to replace fans and dust-proof net.

The product is appropriate for various harsh environments, especially such industries as in-vehicle, measurement and control, and military, etc.



Features

4U 14-slot 19" rack CompactPCI® Chassis

1 x system slot, 13 x expansion slot, support rear I/O

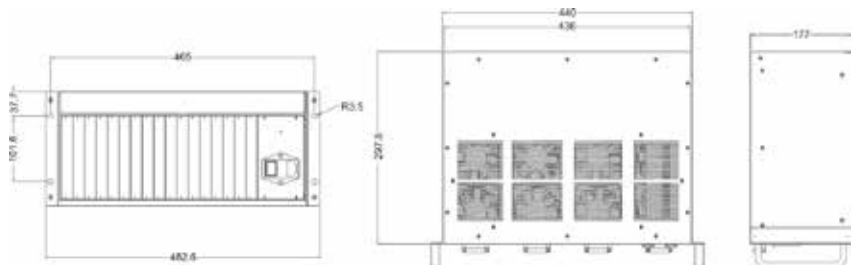
Support 32bit, 33MHz CompactPCI® Bus

1+1 250W redundant CPCI power supply

8 x 80mm axis fan, easy to replace filter

Meet PICMG® 2.0/2.1 standards

Product size chart



(Company : MM)

Specifications

Items	Specification
Enclosure	4U 14-slot 19" rack CompactPCI® Chassis Stainless steel metal case with black paint Support 3U CompactPCI® blade
CompactPCI® Standards	PICMG® 2.0 R3.0 CompactPCI® Specification PICMG® 2.1 R2.0 CompactPCI® Hot Swapt Specification
Backplane	PICMG® 2.0 R3.0 CompactPCI® Specification PICMG® 2.1 R2.0 CompactPCI® Hot Swapt SpecificationCPC-9314B: 14-slot 32bit, 33MHz CompactPCI® Bus, support rear I/O
Power Supply	Support 1+1 250W redundant CPCI power supply, support AC/DC input Over-voltage, over-current, short-circuit protection
Cooling System	8 x 80mm axis fans, 4800rpm, speed up to 7.8m/s Thermal design: blow fron right to left
Operation Environment	0 ~ 50°C 5% ~ 95% non-condensing
Storage Environment	-20 ~ 60°C 5% ~ 95% non-condensing
Shock	10g, 11ms
Vibration	5 ~ 19Hz/1.0 mm amplitude 19 ~ 200Hz/1.0g acceleration
MTBF	≥ 50,000hrs
MTTR	≤ 0.5hrs

Ordering Information

P/N	Model	Description
0020-056840	CPC-3414B-01	4U 14-slot 19" rack CompactPCI® system Backplane: CPC-9314B/Bridge/2 x 250W CPCI PSU
1460-037901	Bezel	Blank bezel for CPC-3414B

CPC-8204B 2U 4-slot CompactPCI® System with Redundant Power Supply

Brief Introduction

CPC-8204B is a 2U 19" CompactPCI chassis with four 6U horizontal add-in cards, which supports one main system board slot, three CPCI node slots, two CPCI power supplies, hot-swappable PCI bus expansion compliant with PICMG 2.0 and PICMG2.1 standards and one swappable fan module on the right with fan mode. As a CPCI communication platform with high reliability, high stability and high capacity, the product can be applied in various industries such as communication, military, and measurement & control, etc.



Features

- 2U 4-slot 19" rack CompactPCI® Chassis

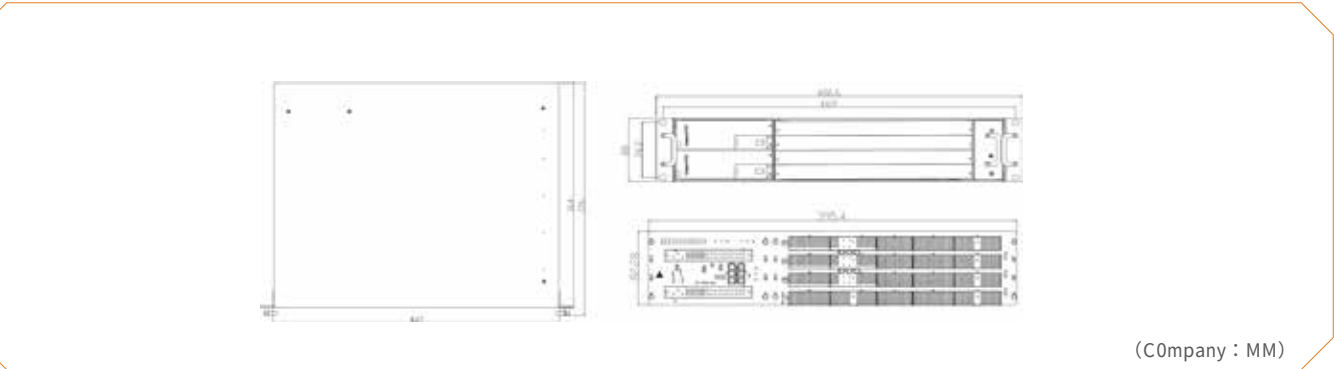
1 x system slot, 3 x expansion slot, support rear I/O

Support 32bit/64bit, 33/66MHz
- 1+1 250W redundant CPCI power supply

3 x 80mm axis fan, easy to replace filter

Meet PICMG® 2.0/2.1 standards

Product size chart



Specifications

Items	Specification
Enclosure	2U 4-slot 19" rack CompactPCI® Chassis Stainless steel metal case with black paint Support 6U CompactPCI® blade
CompactPCI® Standards	PICMG® 2.0 R3.0 CompactPCI® Specification PICMG® 2.1 R2.0 CompactPCI® Hot Swapt Specification
Backplane	CPC-9104B: 4-slot 32bit/64bit, 33/66MHz CompactPCI® Bus, support rear I/O
Power Supply	Support 1+1 250W redundant CPCI power supply, support AC/DC input Over-voltage, over-current, short-circuit protection
Cooling System	3 x 80mm axis fans, 4800rpm, speed up to 7.8m/s Thermal design: blow fron right to left
Operation Environment	-20 ~ 50°C 5% ~ 95% non-condensing
Storage Environment	-40 ~ 85°C 5% ~ 95% non-condensing
Shock	10g, 11ms
Vibration	5 ~ 17Hz/1.0 mm amplitude 17 ~ 200Hz/1.0g acceleration
MTBF	≥ 50,000hrs
MTTR	≤ 0.5hrs

Ordering Information

P/N	Model	Description
0020-056901	CPC-8204B	2U 4-slot 19" rack CompactPCI® system Backplane: CPC-9104B/2 x 250W CPCI PSU
1460-037881	Bezel	Blank bezel for CPC-8408B/8204B

CPC-8408B 4U 8-slot CompactPCI® System with Redundant Power Supply

Brief Introduction

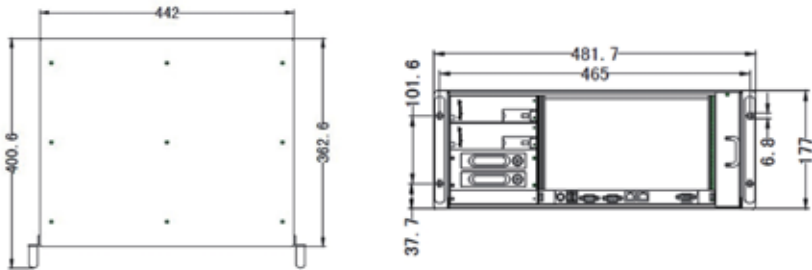
CPC-8408B is a 4U CompactPCI chassis, supporting eight 6U horizontal add-in cards, which supports PICMG2.0 and PICMG2.1 standards. One pluggable fan module is configured on the right of the chassis, which adopts air-blowing mode to dissipate heat. The chassis include two 3U pluggable CPCI power supplies and two drawable hard disk modules; thus, the product provides a highly reliable, highly stable and high capacity CPCI communication platform. The chassis adopts cold-rolled stainless sheet metal and is bent to form; it features simple structure, excellent dust-proof, heat dissipation, anti-vibration, EMC performance, high system reliability and strong environmental adaptability. The product can be widely applied in various fields such as communication, military, measurement and control, etc.



Features

- 4U 8-slot 19" rack CompactPCI® Chassis
- 1 x system slot, 7 x expansion slot, support rear I/O
- Support 32bit/64bit, 33/66MHz
- Support 2 x 2.5" drawable storage bay
- 1+1 250W redundant CPCI power supply
- 5 x 80mm axis fan, easy to replace filter
- Meet PICMG® 2.0/2.1 standards

Product size chart



(Company : MM)

Specifications

Items	Specification
Enclosure	4U 8-slot 19" rack CompactPCI® Chassis Stainless steel metal case with black paint Support 6U CompactPCI® blade
CompactPCI® Standards	PICMG® 2.0 R3.0 CompactPCI® Specification PICMG® 2.1 R2.0 CompactPCI® Hot Swapt Specification PICMG® 2.11 R1.0 CompactPCI® Keying Specification PICMG® 2.11 R3.0 CompactPCI® Power Interface Specification
Backplane	CPC-9108B: 8-slot 32bit/64bit, 33/66MHz CompactPCI® Bus, support rear I/O
Power Supply	Support 1+1 250W redundant CPCI power supply, support AC/DC input Over-voltage, over-current, short-circuit protection
Alarm Module	Monitoring inner chassis temperature, fan status
Cooling System	5 x 80mm axis fans, 4800rpm, speed up to 7.8m/s Thermal design: blow fron right to left
Storage Bay	Storage Bay 2 x 2.5" drawable storage bay
Operation	-5 ~ 55℃
Environment	5% ~ 95% non-condensing
Storage Environment	-40 ~ 85℃ 5% ~ 95% non-condensing
Shock	10g, 11ms
Vibration	5 ~ 19Hz/1.0 mm amplitude 19 ~ 200Hz/1.0g acceleration
MTBF	≥ 50,000hrs
MTTR	≤ 0.5hrs

Ordering Information

P/N	Model	Description
0020-057261	CPC-8408B	4U 8-slot 19" rack CompactPCI® system Backplane: CPC-9108B/2 x storage bay/2 x 250W CPCI PSU
1460-037881	Bezel	Blank bezel for CPC-8408B/8204B

JNB-1302 13.3" Rugged Laptop with Ultra-Light Design and Rich I/O



Features

13.3" FHD display, sunlight readable

Magnesium-alloy chassis

Meet MIL-STD-810 and IP54

Intel® Skylake-U platform

High-speed DDR4 memory

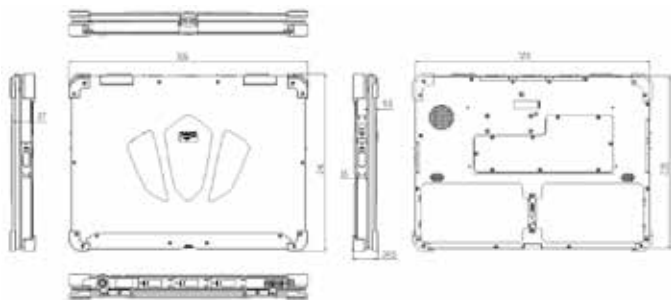
Optional 4G/WiFi/GPS

Aviation power port and 6000mAh battery

Support docking station

Ultra light only 2.2kg

Product size chart



(Company : MM)

Specifications

Items	Specification
Size	13.3"
Resolution	1920 x 1080 FHD, Sunlight readable technology
Chipset	Intel® Skylake-U
CPU	Intel® Core™ i7-6600U 2.6GHz, Intel® Core™ i5-6300U 2.4GHz
Graphic	Intel® HD Graphics 520
RAM	Onboard 8GB DDR4, 1 x 260PIN DDR4 SO-DIMM, up to 16GB
Storage	1 x mSATA
OS	Support Win7/Win8/Win10/Linux
HDMI	1 x HDMI
LAN	2 x 10/100/1000Mbps RJ45
USB	3 x USB 3.0 type A
COM	2 x Serial ports DB9, RS232/422/485
Audio	1 x 3.5mm jack support Mic-in/Line-out
Docking	1 x Docking port
Kensington	2 x Kingston locks
Power Port	1 x aviation type power port
WiFi	Support Mini PCIE WiFi module
Bluetooth	Optional
3G/4G	Optional
GPS	Optional
Keyboard	86 key plastic keyboard, waterproof, Optional silicon keyboard with backlight
Touchpad	Integrated touchpad with left and right key
Speaker	2 x high quality speakers
Microphone	Built-in
Power Supply	AC 110V ~ 240V, DC 19V@90W with adapter, aviation type port
Battery	Li-ion battery, 11.1V/6000mAh
Dimension	320 x 235 x 27mm
Weight	About 2.2kg
Temperature	Meet IEC 68-2-1,2,14/MIL-STD-810 Method 501.4, 502.4, Operation: -20 ~ 55°C (Industrial SSD), Storage: -40 ~ 70°C
Humidity	Meet IEC 68-2-30/MIL-STD-810 Method 507, 5% ~ 95%, non-condensing
Altitude	Meet IEC 68-2-13/MIL-STD-810 Method 500.4 Operation: 15,000ft, Storage: 40,000ft Attitude change rage: 2,000ft/min
EMC	Emission: Meet GB9254-2008 Class A Immunity: Meet GB/T 17618-2015
Shock	Meet GJB-322A/MIL-STD-810 Operation: 10g, 11ms
Vibration	Meet GJB-322A/MIL-STD-810 Operation: 5 ~ 15Hz 1mm, 15 ~ 200Hz 1.0g
Drop	Meet GJB-322A/MIL-STD-810 3 feet drop resistant
Rugged	Meet IP54
Noise	40dB
Reliability	MTBF ≥ 10,000h, MTTR ≤ 0.5h

Ordering Information

P/N	Model	Description
0010-126211	JNB-1302P-01	13.3" rugged laptop/i5-6300U/8G DDR4/128G SSD/6000mAh battery/No WiFi/Adapter
0010-127571	JNB-1302P-02	13.3" rugged laptop/i7-6600U/8G DDR4/128G SSD/6000mAh battery/No WiFi/Adapter

JNB-1502 15.6" Rugged Laptop Meet MIL-STD-810 and IP65



Features

15.6" FHD display, sunlight readable

Magnesium-alloy chassis

Meet MIL-STD-810 and IP65

Intel® Skylake/Kebylake processor

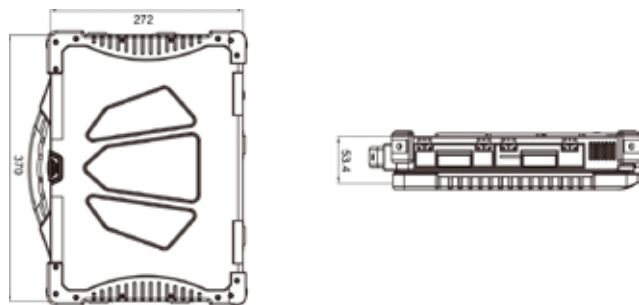
High-speed DDR4 memory

Optional 4G/WiFi/GPS

Aviation power port and 6600mAh battery

Rich I/O and expansion option

Product size chart



(Company : MM)

Specifications

Items	Specification
Size	15.6"
Resolution	1920 x 1080 FHD
Feature	Sunlight readable technology
Chipset	Intel® HM175
CPU	Intel® Core™ i7-7820EQ 3.0GHz, Intel® Core™ i7-6822EQ 2.0GHz
Graphic	Intel® HD Graphics 630, Optional MXM NVIDIA® GT950M card
RAM	Onboard 8GB DDR4, 1 x 260PIN DDR4 SO-DIMM, up to 16GB
Storage	1 x 2.5" SATA HDD/SSD
OS	Support Win7/Win8/Win10/Linux
Display	1 x HDMI, 1 x VGA
LAN	2 x 10/100/1000Mbps RJ45
USB	2 x USB 3.0 type A, 2 x USB 2.0 type A
COM	2 x Serial ports DB9, RS232/422/485 optional
Audio	1 x 3.5mm jack support Mic-in/Line-out
Kensington	2 x Kingston locks
Power Port	1 x aviation type power port
Multimedia bay	Optional DVD-ROM, 2nd Hard drive, USB device, serial device and etc
Express Card	1 x Express card slot
Smart Card	1 x Smart card slot
SD Card	1 x SD card slot
Camera	1 x 2MP AF camera optional
WiFi	Support Mini PCIE WiFi module
Bluetooth	Optional
3G/4G	Optional
GPS	Optional
Technology	Intel® vPro™ Technology, TPM 1.2, Fingerprint identifier
Keyboard	86 key plastic keyboard, waterproof, Optional silicon keyboard with backlight
Touchpad	Integrated touchpad with left and right key
Speaker	2 x high quality speakers
Microphone	Built-in
Power Supply	AC 110V ~ 240V, DC 19V@180W with adapter, aviation type port
Battery	Li-ion battery, 11.1V/6600mAh, Optional 2nd 5000mAh battery
Dimension	370 x 272 x 53.4mm
Weight	About 5.5kg
Temperature	Meet IEC 68-2-1,2,14/MIL-STD-810 Method 501.4, 502.4 Operation: -20 ~ 55°C (Industrial SSD), optional -40 ~ 55°C, Storage: -40 ~ 70°C
Humidity	Meet IEC 68-2-30/MIL-STD-810 Method 507, 5% ~ 95%, non-condensing
Altitude	Meet IEC 68-2-13/MIL-STD-810 Method 500.4 Operation: 15,000ft, Storage: 40,000ft Attitude change rage: 2,000ft/min
EMC	Emission: Meet GB9254-2008 Class A Immunity: Meet GB/T 17618-2015
Shock	Meet GJB-322A/MIL-STD-810, Operation: 20g, 11ms
Vibration	Meet GJB-322A/MIL-STD-810, Operation: 5 ~ 15Hz 1mm, 15 ~ 200Hz 1.0g
Drop	Meet GJB-322A/MIL-STD-810, 4 feet drop resistant
Rugged	Meet IP65
Reliability	MTBF ≥ 5,000h, MTTR ≤ 0.5h

Ordering Information

P/N	Model	Description
0010-123231	JNB-1502P	15.6" rugged laptop/i7-7820EQ/8G DDR4/128G SSD/6600mAh battery/Adapter

JEC-1503D 15.6" Rugged Portable Computer



Features

15.6" FHD display, sunlight readable

Support Intel® 4th Gen i7/i5 processor

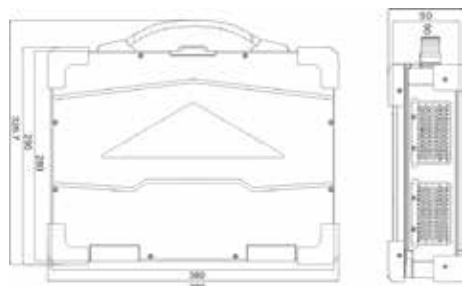
Rugged PCB connection

Support MXM NVIDIA® Graphic card

Magnalium chassis, solid and light, portable

Meet land force rugged requirement

Product size chart



(Company : MM)

Specifications

Items	Specification
Size	15.6"
Resolution	1920 x 1080 FHD
Feature	Sunlight readable technology
Chipset	Intel® QM87
CPU	Intel® Core™ i7-4700EQ 2.4GHz 4C8T, Intel® Core™ i5-4410E 2.9GHz 2C4T
Graphic	Intel® HD Graphics 4600, Optional MXM NVIDIA® GT950M
RAM	Onboard 4GB DDR3L, 1 x 204PIN DDR3L SO-DIMM, up to 8GB, Total up to 12GB
Storage	2 x SATA
OS	Support Win7/Win8/Win10/Linux
Display	1 x VGA, 1 x DVI
LAN	2 x 10/100/1000Mbps RJ45
USB	4 x USB 2.0 type A
COM	2 x Serial ports DB9, support RS232/422/485
Audio	1 x 3.5mm jack support Mic-in/Line-out
Power Port	1 x aviation type power port
PCI/PCIE	2 x PCI or 1 x PCI, 1 x PCIe8 or 1 x PCIe8, 1 x PCIe4
Mini PCIE	1 x Mini PCIE
Keyboard	87 key plastic keyboard, waterproof
Touchpad	Integrated touchpad with left and right key
Power Supply	AC 110V ~ 240V, DC 19V@180W with adapter, aviation type port
Dimension	390 x 290 x 102mm
Weight	About 6.5kg

Ordering Information

P/N	Model	Description
0010-087510	JEC-1503D-01	15.6" rugged portable PC/i5-4410E/Onboard 4G DDR3L/128G SSD/GT950M/2LAN/4USB/2COM/2PCI/ EMC shielding glass
0010-096291	JEC-1503D-07	15.6" rugged portable PC/i7-4700EQ/Onboard 4G DDR3L/128G SSD/GT950M/2LAN/4USB/2COM/ 2PCIE/EMC shielding glass

JEC-1502 15" Rugged Portable Computer



Features

15" rugged computer, flip down design

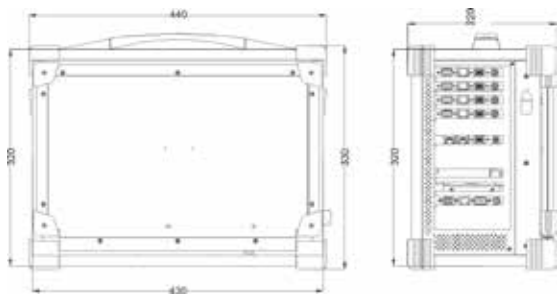
Modular design, I/O board optional

Optional aviation connector

Support multiple PCIE/PCI expansion slots

LCD panel and keyboard meet IP54

Product size chart



(Company : MM)

Specifications

	Items	Specification
Display	Size	15" wide temperature LCD panel
	Resolution	JEC-1502-04: 1400 x 1050 JEC-1502-05: 1024 x 768
Config	Processor	JEC-1502-05: Onboard Intel® Core™ i7-4700EQ/2.4GHz (i5 optional) JEC-1502-04: Support Intel® Core™ 6th/7th CPU
	Chipset	JEC-1502-05: Intel® QM87 JEC-1502-04: Intel® H110
	RAM	JEC-1502-05: Onboard 4G DDR3L (support up to 12G) JEC-1502-04: 2 x 288PIN DIMM, support up to 32GB
I/O	Display	JEC-1502-05: optional JEC-1502-04: 1 x VGA, 1 x DP
	LAN	2 x 10/100/1000Mbps, support wake-on-line
	Serial	2 x RS232/422/485, COM1 support wake-on-line
	PS/2	JEC-1502-04: 1
	USB	JEC-1502-04: 2 x USB 3.0, 2 x USB 2.0
	Audio	JEC-1502-05: optional JEC-1502-04: Mic-in, Line-in, Line-out
	DVD	JEC-1502-04: DVD-RW
KB/MS		87 keys waterproof keyboard with 2 keys touchpad
Storage		2 x 2.5" hard drive bay
Expansion		JEC-1502-04: 4 x PCI, 1 x PCIe16, 1 x PCIe4 JEC-1502-05: 4 x PCI, 1 x PCIe8, 1 x PCIe4
Reliability	Vibration	Random vibration: GJB150.16A C1 Sine vibration 5.5-200Hz 1.0g, 3 axis
	Shock	20g/11ms, half-sine wave, 3 shocks in every axis, total 3 axis
	IP	LCD panel and keyboard meet IP54
	MTBF	≥10,000h
	MTTR	≤0.5h
EMC		JEC-1502-05: meet GJB151B-2013
Operating Temperature		JEC-1502-05: -10°C ~ 50°C JEC-1502-04: -20°C ~ 60°C
Storage Temperature		-40°C ~ 60°C
Humidity Thermal Cycle		JEC-1502-05: 30°C ~ 60°C, 95% RH, 10 cycles JEC-1502-04: 40°C, 95% RH, 2 cycles
Power Supply		JEC-1502-05: 220VAC/200W JEC-1502-04: 220VAC/350W
Weight		≤14.5kg
Color		JEC-1502-05: green JEC-1502-04: black
Dimension (WxHxD)		430 x 320 x 210 mm

Ordering Information

P/N	Model	Description
0010-127661	JEC-1502-05	15" rugged portable computer/QM87/i7-4700EQ/4G DDR3L/2 x PCIe/4 x PCI/ 200W ATX
0010-122851	JEC-1502-04	15" rugged portable computer/H110/i7-6700/8G DDR4/512G SSD/4 x PCI/1 x PCIe16/1 x PCIe4/350W ATX

JPC-8203B 2U 19" Rackmount On-Vehicle Computer



Features

Onboard CPU and RAM, flexible PCB design

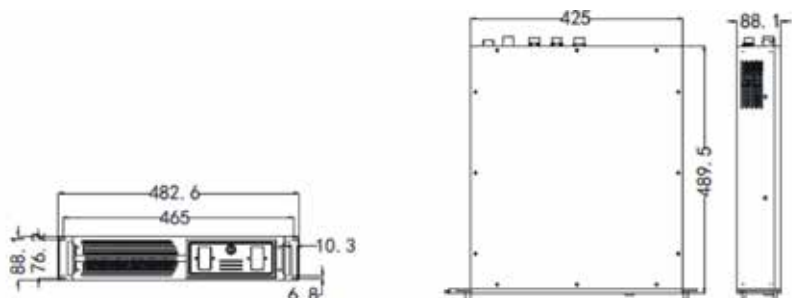
CPCI connector between mainboard and backplane

Rugged design for expansion card

Multiple I/O ports, optional standard type and aviation type

Aluminum-alloy front panel

Product size chart



(Company : MM)

Specifications

	Items	Specification
Config	Processor	Onboard Intel® Core™ i7-4700EQ/2.4GHz
	Chipset	Intel® QM87
	RAM	Onboard 4G DDR3L (support up to 12G)
I/O	Display	JPC-8203B-05: 1 x VGA aviation type JPC-8203B-04: 1 x VGA DB15, 1 x DVI-D Support MXM graphic card optional
	LAN	2 x 10/100/1000Mbps JPC-8203B-04: aviation type connector JPC-8203B-05: RJ45 connector
	Serial	2 x RS232/422/485 JPC-8203B-04: aviation type connector JPC-8203B-05: DB9 connector
	USB	Front: 2 x USB 2.0 Rear: 4 x USB 2.0, 1 x USB 3.0
	Audio	JPC-8203B-04: optional JPC-8203B-05: Mic-in, Line-out
Storage		2 x 2.5" hard drive bay
Expansion		2 x PCI, 1 x PCIe8 (x16 connector)
Reliability	Vibration	Sine vibration 5-19Hz/1mm 19-200Hz/1.5g, 3 axis
	Shock	20g/11ms, half-sine wave, 3 shocks in every axis, total 3 axis
	IP	≥10,000h
	MTBF	≤0.5h
	MTTR	≤0.5h
EMC		Meet GJB151B-2013
Operating Temperature		-20°C ~ 55°C (-40°C ~ 70°C optional)
Storage Temperature		-40°C ~ 65°C
Power Supply		220VAC
Color		Green
Dimension (WxHxD)		425 x 88.1 x 489.5 mm

Ordering Information

P/N	Model	Description
0010-123391	JPC-8203B-04	2U rugged computer/QM87/i7-4700EQ/4G DDR3L/No HDD/4 x USB 2.0/1 x USB 3.0/VGA/2 x COM/2 x LAN/2 x PCI/1 x PCIe8/ATX 200W/Aviation type connector
0010-123401	JPC-8203B-05	2U rugged computer/QM87/i7-4700EQ/4G DDR3L/No HDD/4 x USB 2.0/1 x USB 3.0/VGA/DVI/2 x COM/2 x LAN/2 x PCI/1 x PCIe8/ATX 200W

JSV-8203 2U 19" Rackmount On-Vehicle Server



Features

Support dual socket Intel® Xeon® E5 processor

Support up to 4 hard drives

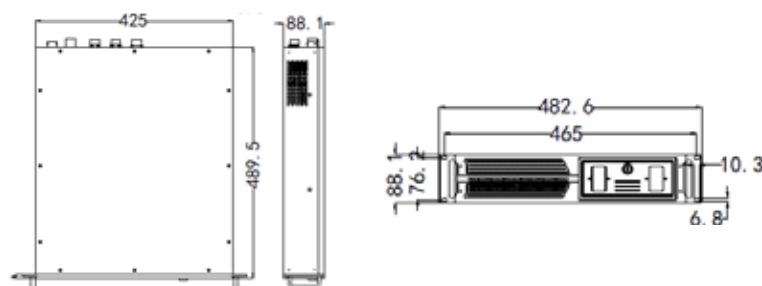
CPCI connector between mainboard and backplane

Rugged design for expansion card

Multiple I/O ports, optional standard type and aviation type

Aluminum-alloy front panel

Product size chart



(Company : MM)

Specifications

	Items	Specification
Config	Processor	Dual socket Intel® Xeon® E5-2600 V3/V4 processor
	Chipset	Intel® C612
	RAM	16 x DDR4 DIMM, each support 32G, total 512G
I/O	Display	1 x VGA aviation type
	LAN	2 x 10/100/1000Mbps aviation type
	Serial	1 x RS232 aviation type
	USB	Front: 2 x USB 2.0 Rear: 2 x USB 2.0 aviation type
Storage		4 x 2.5" hard drive bay drawable
Expansion		2 x PCIe x16, 4 x PCIe x8
Reliability	Vibration	Sine vibration 5-19Hz/1mm 19-200Hz/1.0g, 3 axis
	Shock	20g/11ms, half-sine wave, 3 shocks in every axis, total 3 axis
	MTBF	≥10,000h
	MTTR	≤0.5h
EMC		Meet GJB151B-2013
Operating Temperature		0°C ~ 40°C (-20°C ~ 55°C optional)
Storage Temperature		-40°C ~ 70°C
Power Supply		550W ATX
Color		Green
Dimension (WxHxD)		425 x 88.1 x 518 mm

Ordering Information

P/N	Model	Specification
0010-122161	JSV-8203-01	2U rugged server/C612/2 X E5-2690 V4/128G DDR4/No storage/ATX 550W/Aviation type connector

Network Appliance Selection Guide

Model		N15	NPC-8130	NPC-8128	N35	N35-03
Image						
System	Chipset	Intel® C3000	Intel® Bay Trail	Intel® C236/H110	Intel® C236	Intel® C246
	CPU	Intel® Atom® C3000 series CPU	Intel® Celeron® J1900	Intel® E3/i7/i5/i3	Intel® E3/i7/i5/i3	Intel® E3/i7/i5/i3
	RAM	4 x 288PIN DDR4 DIMMs, up to 128GB	Onboard 4GB DDR3L	2 x 288PIN DDR4 DIMMs, up to 32GB	4 x 288PIN DDR4 DIMMs, up to 64GB	4 x 288PIN DDR4 DIMMs, up to 64GB
Storage	SATA	2 x SATA 3.0	1 x SATA 3.0	1 x SATA 3.0	2 x 2.5" SATA bay	2 x 3.5" SATA bay
	Other	1 x mSATA (Share signal with 1 x SATA)	1 x mSATA	1 x CFast optional	\	\
I/O	USB	2 x USB 2.0 in front 1 x USB 2.0 internal	2 x USB 2.0	2 x USB 2.0	2 x USB 2.0	2 x USB 3.0 in front 2 x USB 3.0 internal
	COM	1 x RS232 internal 1 x Console	1 x Console	1 x Console	1 x RS232 internal 1 x Console	1 x RS232 internal 1 x Console
Display		VGA optional	VGA	VGA optional	VGA optional	VGA optional
Network		6 x RJ45, 2 x SFP or 8 x RJ45	2 x RJ45 Optional additional 2 x RJ45, 2 x SFP or 4 x RJ45	6 x RJ45 Support up to 3 Bypass	\	\
Expansion	PCIE	1 x PCIeEx8, 1 x Mini PCIE	/	1 x PCIeEx8	1 x PCIeEx4	1 x PCIeEx8
	ENS	2 x ENS slots	/	C236: 2 x ENS slots H110: 1 x ENS slots	10 x ENS slots	8 x ENS slots
Motherboard		NET-1823VD8N	/	NET-1828VD6N	NET-1829	NET-1833VDN
Operation Environment		0 ~ 45°C 10% ~ 95%	0 ~ 45°C 10% ~ 95%	0 ~ 45°C 10% ~ 95%	0 ~ 45°C 10% ~ 95%	0 ~ 45°C 10% ~ 95%
Storage Environment		-20 ~ 60°C 30% ~ 90%	-10 ~ 55°C 30% ~ 90%	-20 ~ 60°C 30% ~ 90%	-20 ~ 60°C 30% ~ 90%	-10 ~ 55°C 30% ~ 90%
Power Supply		ATX power, redundant power or DC 12V	ATX power	ATX power or redundant power	ATX power or redundant power	ATX power
Dimension (W x H x D)		482.6 x 43.6 x 500 mm	440 x 43.6 x 260 mm	440 x 43.6 x 500 mm	440 x 88.1 x 550.9 mm	482.6 x 88.1 x 600 mm

Network Appliance Selection Guide

Model		NPC-8208	NPC-8220	NPC-8228	N55
Image					
System	Chipset	Intel® C236	Intel® C612	Intel® C236/H110	Intel® C621/C627
	CPU	Intel® E3/i7/i5/i3	Intel® E5-2600 V3/V4	Intel® E3/i7/i5/i3	Intel® Xeon® Scalable
	RAM	4 x 288PIN DDR4 DIMMs, up to 64GB	16 x 288PIN DDR4 DIMMs, up to 512GB	2 x 288PIN DDR4 DIMMs, up to 32GB	16 x 288PIN DDR4 DIMMs, up to 1TB
Storage	SATA	2 x 3.5"/2.5" SATA bay	4 x 3.5" SATA bay	1 x 3.5" SATA bay	4 x SATA 3.0
	Other	1 x CFast optional	1 x CFast optional	1 x CFast optional	1 x M.2 2280
I/O	USB	2 x USB 2.0	2 x USB 2.0	2 x USB 2.0	2 x USB 3.0 in front 2 x USB 3.0 internal
	COM	1 x RS232 internal 1 x Console	1 x RS232 internal 1 x Console	1 x RS232 internal 1 x Console	1 x RS232 internal 1 x Console
Display		VGA optional DVI optional	VGA optional	VGA optional	VGA optional
Network		1 x RJ45	2 x RJ45	6 x RJ45	1 x RJ45
Expansion	PCIE	1 x PCIeEx8	3 x PCIeEx8	1 x PCIeEx8	3 x PCIeEx8
	ENS	4 x ENS slots	4/8 x ENS slots	2 x ENS slots	8 x ENS slots
Motherboard		NET-1825	NET-2815	NET-1828VD6N	NET-2816
Operation Environment		0 ~ 45°C 10% ~ 95%	0 ~ 45°C 10% ~ 95%	0 ~ 45°C 10% ~ 95%	0 ~ 45°C 10% ~ 95%
Storage Environment		-20 ~ 60°C 30% ~ 90%	-20 ~ 60°C 30% ~ 90%	-10 ~ 55°C 30% ~ 90%	-20 ~ 60°C 30% ~ 90%
Power Supply		ATX power or redundant power	ATX power or redundant power	Redundant power	ATX power or redundant power
Dimension (W x H x D)		440 x 88.1 x 550 mm	440 x 88.1 x 550 mm	440 x 88.1 x 500 mm	482.6 x 88.1 x 600 mm

EIC-3011 Rugged Compact Network Appliance with Intel® BayTrail®

Brief Introduction

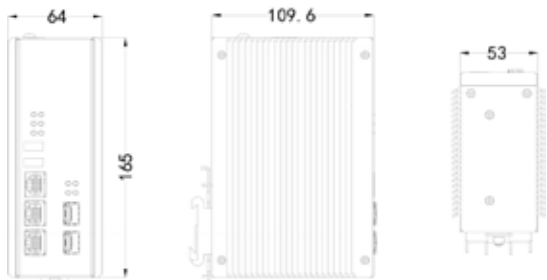
EIC-3011 is a micro network security control platform complete PC. Based on Intel® latest Atom Bay Trail SoC platform, the PC contains onboard DDR3 8GB/4GB memory, and features ergonomic structure design, small form factor, fully-sealed design, low power consumption, fanless heat dissipation, wide temperature, wide voltage input, redundant power supply, separation design of service port and management port, bypass protection, anti-EMI and DIN guide rail installation, which are ideally suitable for harsh and hostile environment. The product is an information security product tailor-made for industry control system, which can effectively fights against various safety threats faced by industrial system, and brings real value of insutrial security protection for our customers. The PC is made of sheet metal material, and has excellent heat dissipation and anti-vibration performance. This product can be widely used for information security monitoring, industrial protection gateway and industrial firewall in electric power, petro-chemical, tobacco, nuclear power, iron and steel, chemical industry, advanced manufacturing, rail transit, environment protection and other fields.



Features

- Onboard Intel® J1900 SoC and 4GB RAM
- Optional 2/4/6 LAN ports
- Support mSATA storage
- Support 2 Bypass optional

Product size chart



(C0mpany : MM)

Specifications

Items		Specification
System	CPU	Intel® Atom™ E3845 1.91GHz
	Chipset	Intel® Bay Trail
Memory		Onboard 4GB DDR3L
Storage	SATA	1 x SATA
	MSATA	1 x mSATA
LAN		2 x 10/100/1000Mbps RJ45, LAN1 support wake-on-line and PXE Optional additional 2 x RJ45, 2 x SFP or 4 x RJ45
I/O	VGA	1 x VGA
	Console	1 x RJ45 type
	USB	2 x USB 2.0
Power Supply		Redundant DC 9 ~ 36V
Mechanical	Dimensions (W x H x D)	64 x 165 x 109.6 mm
	Weight	1.1kg
	Installation	DIN Rail
Operating Temperature		-25 ~ 60°C -40 ~ 70°C optional
EMC&Safety		Meet CE, CCC
OS Support		Windows 7/8/10, Linux

Ordering Information

P/N	Model	Description
0020-060621	EIC-3011-05 Barebone	Barebone/Intel® BayTrail/E3845/Onboard 4G DDR3L/No storage, optional mSATA SSD/2 x LAN RJ45/ Redundant DC 9 ~ 36V
0010-088581	EIC-3011-01	Intel® BayTrail/E3845/Onboard 4G DDR3L/16G mSATA/2 x LAN RJ45/2 x LAN SFP/Redundant DC 9 ~ 36V
0010-088801	EIC-3011-03	Intel® BayTrail/E3845/Onboard 4G DDR3L/16G mSATA/4 x LAN RJ45/1 Bypass/Redundant DC 9 ~ 36V
0010-092081	EIC-3011-06	Intel® BayTrail/E3845/Onboard 4G DDR3L/16G mSATA/6 x LAN RJ45/2 Bypass/Redundant DC 9 ~ 36V

N15 1U Network Appliance with Intel® Atom® C3000

Brief Introduction

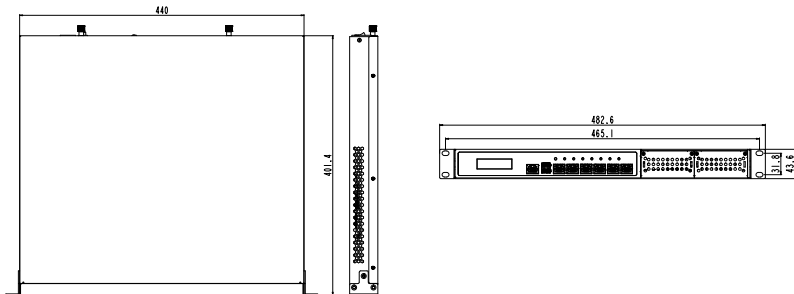
N15 is a medium/high-end network application platform based on X86 architecture. The PC contains Intel® C3000 chipset, and supports 2 x SATA 3.0 and 1 x mSATA. Onboard 6 x RJ45 and 2 x SFP or 8 x RJ45 are optional. With additional 2 x ENS module, more ethernet ports can be provided. N15 also features with hard drive encryption, access alarm, BPI interface and bypass switch. N15 can be widely used in firewall, anti-virus wall, load balance, Internet-based behavior management and audit, application delivery, flow management, VPN, DNS, IDS/IPS, UTM and other applications.



Features

- Support Intel® C3000 chipset and CPU
- Support 4 x DDR4 DIMMs up to 128GB
- 2 x SATA 3.0 and 1 x mSATA
- Onboard 6 x RJ45, 2 x SFP or 8 x RJ45
- Support 2 x ENS module
- Inside PCIe8 for encryption card or acceleration card
- Inside mini PCIE for VGA or 4G module
- Support hard drive encryption, access alarm, BPI interface and bypass switch

Product size chart



(C0mpany : MM)

Specifications

Items		Specification
System	CPU	Intel® Atom® C3000 series CPU
	Chipset	Intel® C3000
Memory		4 x 288PIN DDR4 DIMMs, up to 128GB
Storage	SATA	2 x SATA 3.0
	MSATA	1 (share signal with 1 x SATA)
Network Controller		Intel® i211 and Marvell 88E1543
Network Port		Onboard 6 x RJ45, 2 x SFP or 8 x RJ45
Expansion		1 x PCIe8, 1 x Mini PCIE 2 x ENS module slots
I/O	VGA	1 x VGA optional
	Console	1 x RJ45 type
	COM	1 x COM PIN header internal
	USB	2 x USB 2.0 in front 1 x USB 2.0 PIN header internal
Motherboard		NET-1823VD8N series
Power Supply		Support DC 12V, single power and redundant power
Mechanical	Dimensions (W x H x D)	482.6 x 43.6 x 500 mm
	Installation	DIN Rail
EMC&Safety		Meet CE, CCC
OS Support		Windows 7/8/10, Linux

Ordering Information

P/N	Model	Description
0010-124351	N15-01-02/NET-1832VD8N/C3758/4G*2/1TB/150W	1U Network Appliance/Intel® Atom C3758/2 x 4G/1 x 1TB HDD/6 x RJ45 Gb LAN/2 x SFP 10Gb LAN/2 x ENS slots/150W power supply
0010-124341	N15-01-02/NET-1832VD8N/C3558/4G*2/1TB/70W redundant	1U Network Appliance/Intel® Atom C3558/2 x 4G/1 x 1TB HDD/6 x RJ45 Gb LAN/2 x SFP 10Gb LAN/2 x ENS slots/70W redundant power supply

N35 Mainstream 2U Network Appliance with Intel® C236

Brief Introduction

N35 is a medium/high-end network application platform based on X86 architecture. The PC contains Intel® C236 chipset, and supports Windows7, Windows8, Windows8.1, Windows10, Windows Server 2008/R2, Server2012/R2 and above Linux (kernel 2.6 or above) operating systems.

The PC adopts standard 2U, 19-inch rack mount and modular structure design, and supports two 2.5-inch SATA HDD, and supports ten front drawable ENS family network modular cards based on PCI-E, such as: 2 electrical ports, 2 optical ports, 4 electrical ports, 4 optical ports, 8 electrical ports, 8 optical ports, 4 optical ports and 4 electrical ports, 20 GbE, 40 GbE and many other kinds of ENS modular cards used for optical port or electrical port expansion. The product also supports single power supply or redundant power supply, and can meet various network security application requirements in the market.

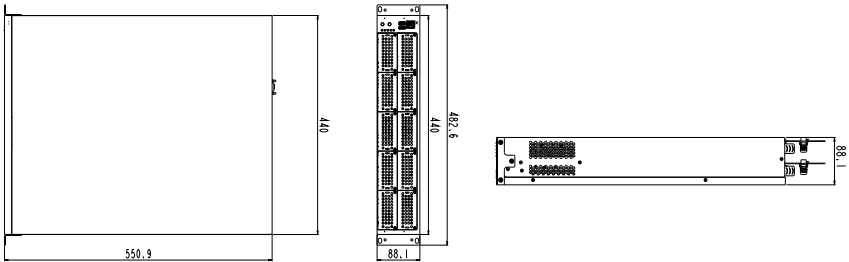
N35 can be widely used in firewall, anti-virus wall, load balance, Internet-based behavior management and audit, application delivery, flow management, VPN, DNS, IDS/IPS, UTM and other applications.



Features

- Based on Intel® C236
- Support Intel® Xeon® E3, Core™ i7/i5/i3/Pentium®/Celeron® CPU
- Support 4 x DDR4 DIMMs up to 64GB
- Support 2 x 2.5" HDD
- Support 10 x LAN module bay (ENS)
- Optional CRPS 1+1 redundant power supply

Product size chart



(C0mpany : MM)

Specifications

Items		Specification
System	CPU	Intel® Xeon® E3-1200 V5/V6 series, 6th/7th gen Core™ i7/i5/i3
	Chipset	Intel® C236
Memory		4 x 288PIN DDR4 DIMMs, up to 64GB
Storage	SATA	2 x 2.5" SATA bay
I/O	VGA	1 x VGA optional
	Console	1 x RJ45 type
	USB	2 x USB 2.0
Power Supply		AC 110V ~ 240V
Mechanical	Dimensions (W x H x D)	16.3kg
	Installation	2U rack mount
EMC&Safety		Meet CE, CCC
OS Support		Windows 7/8/10, Linux

Ordering Information

P/N	Model	Description
0010-117321	N35	Intel® C236/E3-1225V6/8G DDR4/500G HDD/10 x LAN module bays/1 x PCIe4/350W redundant ATX

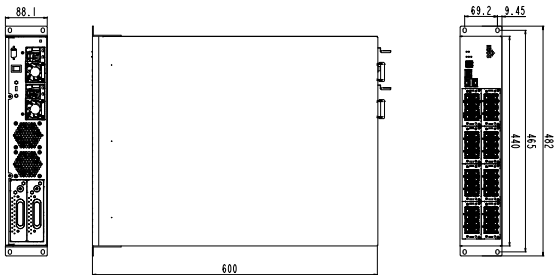
N35-03 C246 Mainstream 2U Network Appliance with Intel® C246



Features

- Based on Intel® C246
- Support Intel® Coffee Lake-S Xeon®, Core™ i7/i5/i3/ Pentium®/Celeron® CPU
- Support 4 x DDR4 DIMMs up to 64GB un-buffered ECC or Non-ECC
- Support 2 x 3.5" HDD drawable
- Provide 8 x ENS module slots to expand 64 x Gb LAN or 32 x 10Gb LAN
- Support ByPass switch, hard drive encryption, intrusion detection, BPI interface

Product size chart



(C0mpany : MM)

Specifications

Items		Specification
System	CPU	Intel® Coffee Lake-S Xeon®, Core™ i7/i5/i3/ Pentium®/Celeron® CPU
	RAM	4 x 288PIN DDR4 DIMMs, up to 64GB, support unbuffered ECC or Non-ECC
	Chipset	Intel® C246
Expansion		1 x PCIe x8 8 x LAN module bay (ENS), optional 6
Storage	SATA	2 x 3.5" SATA bay
I/O	VGA	1 x VGA optional
	Console	1 x RJ45 type
	Serial	1 x RS232 PIN header
	USB	2 x USB 3.0 in front, 2 x USB 3.0 PIN header
Power Supply		350W redundant PSU
Mechanical	Dimensions (W x H x D)	482.6 x 88.1 x 600 mm
	Installation	2U rack mount
EMC&Safety		Meet CE, CCC
OS Support		Windows 7/8/10, Linux

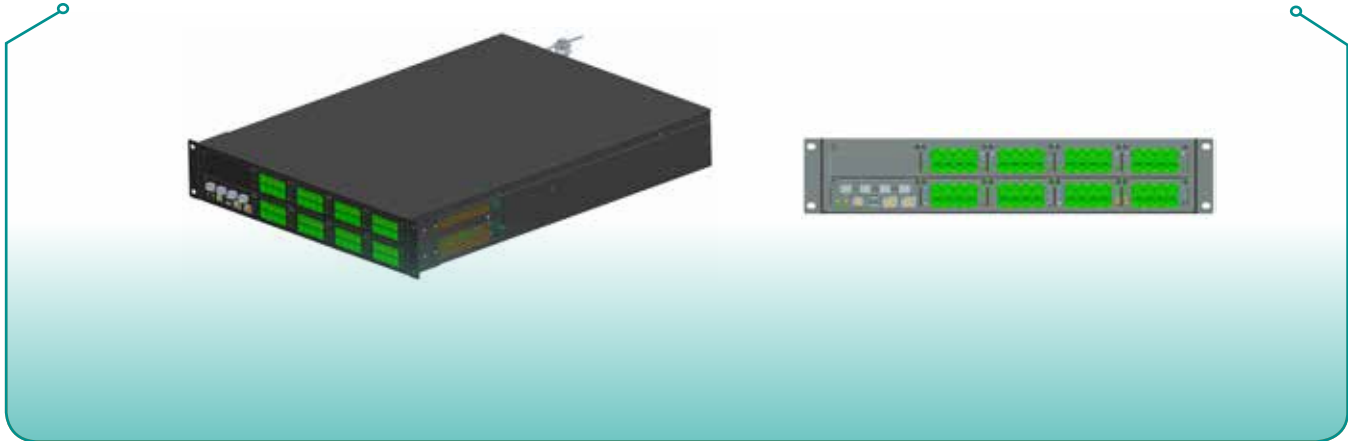
Ordering Information

P/N	Model	Description
	N35-03	2U Rackmount/Intel® C246/i5-8500/8G DDR4/1TB HDD/8 x ENS slots/350W redundant PSU

N55-01 Performance 2U Network Appliance with Intel® C621/C627

Brief Introduction

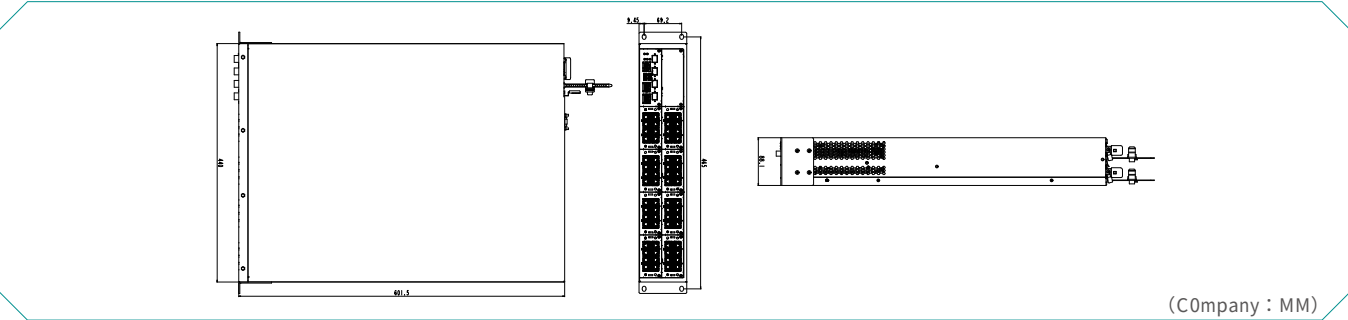
N55-01 is a standard performance 2U network Appliance with high CPU computing power, network throughput and rich network connector. The system adopt Intel® C621/C627 chipset, support 2 x Intel® LGA3647 Xeon® Scalable Family CPU. Its modular design support 8 x ENS module which expandable to 64 x Gb LAN or 32 x 10Gb LAN. It's design to meet requirements in next gen high-end application delivery, NGFW, load balance, UTM, IDS, IPS, VPN and etc.



Features

- Based on Intel® C621/C627
- Support 2 x Intel® Xeon® Processor Scalable Family CPU
- Support 16 x DDR4 DIMMs up to 1TB, support RDIMM
- Rugged RAM installation design
- 4 x SATA 3.0, 1 x M.2 2280, 1 x mSATA
- Provide 8 x ENS module slots to expand 64 x Gb LAN or 32 x 10Gb LAN
- Support ByPass switch, hard drive encryption, intrusion detection, BPI interface

Product size chart



Specifications

Items		Specification
System	CPU	Support 2 x Intel® Xeon® Processor Scalable Family CPU (Skylake SP/Cascade Lake SP)
	Chipset	Intel® C621/C627
	RAM	16 x 288PIN DDR4 DIMMs, up to 1TB, support RDIMM
Storage	SATA	4 x SATA 3.0
	mSATA	1 x mSATA
	M.2	1 x M.2 2280
Expansion		3 x PCIe x8 8 x LAN module bay (ENS)
I/O	VGA	1 x VGA optional
	LAN	1 x Intel® i210 for debugging
	Console	1 x RJ45 type
	Serial	1 x RS232 PIN header
	USB	2 x USB 3.0 in front, 2 x USB 3.0 PIN header
Power Supply		800W redundant PSU
Mechanical	Dimensions (W x H x D)	482.6 x 88.1 x 600 mm
	Installation	2U rack mount
EMC&Safety		Meet CE, CCC
OS Support		Windows 10, Linux

Ordering Information

P/N	Model	Description
	N55-01	2U Rackmount/N55-01/NET-2816VD2-01/2 x Xeon CPU/16 x DDR4 DIMM/2 x Gb LAN/8 x ENS slots/mSATA/M.2/ 2 x 2.5" HDD/800W redundant PSU
	N55-01	2U Rackmount/N55-01/NET-2816VD2-02/2 x Xeon CPU/16 x DDR4 DIMM/2 x Gb LAN (optional 4 x 10Gb LAN)/ 8 x ENS slots/mSATA/M.2/2 x 2.5" HDD/800W redundant PSU

NPC-8130 Entry Level Network Appliance with Intel® J1900

Brief Introduction

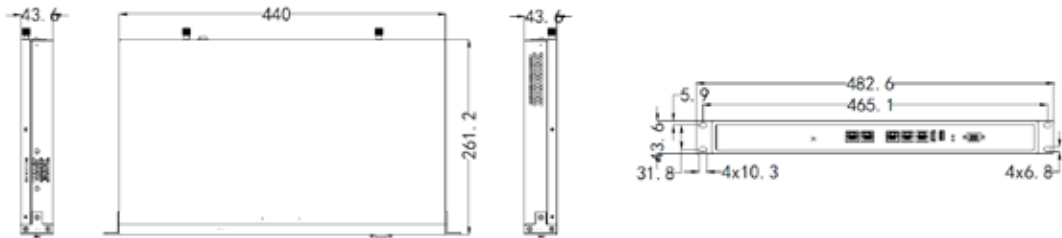
NPC-8130 is a rack mount network application platform based on X86 architecture. The PC contains Intel® Atom™ J1900 processor, onboard 4GB DDR3 motherboard, and supports Windows7 and Linux (kernel above 2.6) operating systems. The PC adopts standard 1U, rack mount and modular structure design, one HDD bay, supporting 2.5 or 3.5-inch SATA HDD. The motherboard provides onboard two 1000Mbps electrical ports. By expansion via IO board, the PC supports two electrical ports, two electrical ports/two optical ports, four electrical ports, and six electrical ports. Among them, four electrical ports configuration supports one-group ByPass; 6 electrical ports configuration supports two-group ByPass, which meets multiple network security application requirements on the market. NPC-8130 can be widely used in firewall, anti-virus wall, load balance, Internet-based behavior management and audit, application delivery, flow management, VPN, DNS, IDS/IPS, UTM and other applications.



Features

- Onboard Intel® J1900 SoC and 4GB RAM
- Optional 2/4/6 LAN ports
- Support 2.5"/3.5"/mSATA storage
- Support 2 Bypass optional

Product size chart



(C0mpany : MM)

Specifications

Items		Specification
System	CPU	Intel® Celeron™ J1900 2.0GHz (up to 2.42GHz)
	Chipset	Intel® Bay Trail
Memory		Onboard 4GB DDR3L
Storage	SATA	1 x 3.5" SATA bay
	mSATA	1 x mSATA
LAN		2 x 10/100/1000Mbps RJ45, LAN1 support wake-on-line and PXE Optional additional 2 x RJ45, 2 x SFP or 4 x RJ45
I/O	VGA	1 x VGA
	Console	1 x RJ45 type
	USB	2 x USB 2.0
Power Supply		AC 110V ~ 240V
Mechanical	Dimensions (W x H x D)	440 x 43.6 x 260 mm
	Weight	3.9kg
	Installation	Rack mount
EMC&Safety		Meet CE, CCC
OS Support		Windows 7/8/10, Linux

Ordering Information

P/N	Model	Description
0010-090401	NPC-8130-01	J1900/4G DDR3L/16GB mSATA/4 x RJ45 LAN/60W adapter
0010-091571	NPC-8130-02	J1900/4G DDR3L/500GB HDD/6 x RJ45 LAN/2 Bypass/60W adapter

NPC-8128 Mainstream Network Appliance with Intel® C236/H110

Brief Introduction

NPC-8128 a mainstream network application platform based on X86 architecture. The PC contains Intel® H110/C236 chipset, supports LGA1151 package Intel 6th-generation and 7th-generation i3, i5, i7, Xeon E3-1200 v5/v6 family processors(Among them, H110 platform does not support Xeon E3-1200 v5/v6 family), onboard two DDR4 memory slots, and supports Windows 7 32bit/64bit, Windows 8.1 64bit, Windows10 64bit, and Linux (Kernel 2.6 above) operating systems.

The PC adopts standard 1U, 19-inch rack mount and modular structure design, onboard six Gigabit electrical ports, supports up to three-group ByPass, one PCIE X8 slot and one CFast card expansion (optional), also expandable to one (H110 chipset) or two (C236 chipset) ENS network modules. The PC can meet various network security application needs on the market.

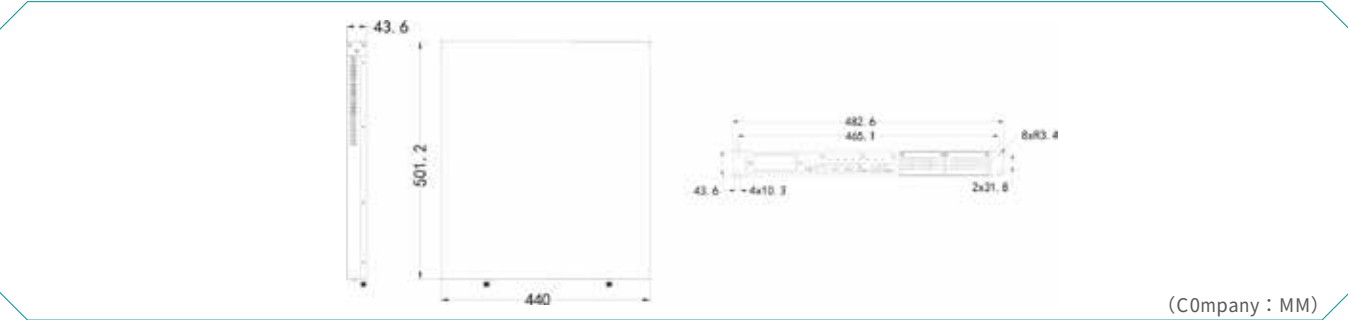
NPC-8128 can be widely used in firewall, anti-virus wall, load balance, Internet access management and audit, application delivery, flow traffic management, VPN, DNS, IDS/IPS, UTM and etc.



Features

- Based on Intel® C236/H110
- Support Intel® Xeon® E3, Core™ i7/i5/i3/Pentium®/Celeron® CPU
- Support 2 x DDR4 DIMMs up to 32GB
- Support 3.5" HDD and CFast card
- Onboard 6 x Gb LAN
- Support 1/2 LAN module bay (ENS)
- Optional CRPS 1+1 redundant power supply

Product size chart



Specifications

Items		Specification
System	CPU	C236: Intel® Xeon® E3-1200 V5/V6 series, 6th gen Core™ i7/i5/i3 H110: Intel® 6th gen Core™ i7/i5/i3
	Chipset	Intel® C236/H110
Memory		2 x 288PIN DDR4 DIMMs, up to 32GB
Storage	SATA	1 x 3.5" SATA bay
	mSATA	1 x CFast card socket optional
LAN		6 x 10/100/1000Mbps RJ45, LAN1 support wake-on-line and PXE Support up to 3 Bypass
Expansion		C236: 2 x LAN module bay (ENS) H110: 1 x LAN module bay (ENS)
I/O	VGA	1 x VGA optional
	Console	1 x RJ45 type
	USB	2 x USB 2.0
LCD Module		Optional
Power Supply		AC 110V ~ 240V
Mechanical	Dimensions (W x H x D)	440 x 43.6 x 500 mm 440 x 43.6 x 550 mm (NPC-8128-05)
	Weight	8kg
	Installation	Rack mount
EMC&Safety		Meet CE, CCC
OS Support		Windows 7/8/10, Linux

Ordering Information

P/N	Model	Description
0020-060851	NPC-8128-02 Barebone	Barebone/Intel® C236/No CPU/No RAM/No storage/6 x LAN/2 Bypass/2 x LAN module bays/250W ATX
0010-089211	NPC-8128-02	Intel® C236/i7-6700/8G DDR4/500GB HDD/6 x LAN/3 Bypass/2 x LAN module bays/250W ATX/LCD module
0010-091121	NPC-8128-02	Intel® C236/E3-1275 V5/8G DDR4/500GB HDD/6 x LAN/2 Bypass/2 x LAN module bays/250W ATX/LCD module
0020-060511	NPC-8128-03 Barebone	Barebone/Intel® H110/No CPU/No RAM/No storage/6 x LAN/2 Bypass/1 x LAN module bays/180W ATX
0010-091131	NPC-8128-03	Intel® H110/G3900/8G DDR4/500GB HDD/6 x LAN/1 x LAN module bays/180W ATX
0010-091141	NPC-8128-03	Intel® H110/G4400/8G DDR4/500GB HDD/6 x LAN/2 Bypass/1 x LAN module bays/180W ATX
0010-089221	NPC-8128-03	Intel® H110/i3-6100/8G DDR4/500GB HDD/6 x LAN/2 Bypass/1 x LAN module bays/180W ATX
0020-061311	NPC-8128-05	Barebone/Intel® H110/i3-6100/8G DDR4/CFast/6 x LAN/3 Bypass/1 x LAN module bays/300W redundant ATX/LCD module

NPC-8208 Mainstream 2U Network Appliance with Intel® C236

Brief Introduction

NPC-8208 is a medium/high-end network application platform based on X86 architecture. The PC contains Intel® C236 chipset, and supports Windows7, Windows8, Windows8.1, Windows10, Windows Server 2008/R2, Server2012/R2 and above Linux (kernel 2.6 or above) operating systems.

The PC adopts standard 2U, 19-inch rack mount and modular structure design, and supports two drawable HDD bracket, 2.5-inch or 3.5-inch SATA HDD, and supports four front drawable ENS family network modular cards based on PCI-E, such as: 2 electrical ports, 2 optical ports, 4 electrical ports, 4 optical ports, 8 electrical ports, 8 optical ports, 4 optical ports and 4 electrical ports, 20 GbE, 40 GbE and many other kinds of ENS modular cards used for optical port or electrical port expansion. The product also supports single power supply or redundant power supply, and can meet various network security application requirements in the market.

NPC-8208 can be widely used in firewall, anti-virus wall, load balance, Internet-based behavior management and audit, application delivery, flow management, VPN, DNS, IDS/IPS, UTM and other applications.



Features

- Based on Intel® C236
- Support Intel® Xeon® E3, Core™ i7/i5/i3/Pentium®/Celeron® CPU
- Support 4 x DDR4 DIMMs up to 64GB
- Support 2 x 3.5" HDD and CFast card
- Support 4 x LAN module bay (ENS)
- Optional CRPS 1+1 redundant power supply

Product size chart



(C0mpany : MM)

Specifications

Items		Specification
System	CPU	Intel® Xeon® E3-1200 V5/V6 series, 6th/7th gen Core™ i7/i5/i3
	Chipset	Intel® C236
Memory		4 x 288PIN DDR4 DIMMs, up to 64GB
Storage	SATA	2 x 3.5"/2.5" drawable SATA bay
	mSATA	1 x CFast card socket optional
LAN		1 x 10/100/1000Mbps RJ45, support wake-on-line and PXE
Expansion		1 x PCIe8 3.0 (300mm L x 120mm H) 4 x LAN module bay (ENS) Remark: PCIe8 and ENS1 are exclusive
I/O	VGA	1 x VGA optional
	DVI	1 x DVI optional
	Console	1 x RJ45 type
	USB	2 x USB 2.0
LCD Module		Optional
Power Supply		AC 110V ~ 240V
Mechanical	Dimensions (W x H x D)	440 x 88.1 x 550 mm
	Weight	13.9kg
	Installation	2U rack mount
EMC&Safety		Meet CE, CCC
OS Support		Windows 7/8/10, Linux

Ordering Information

P/N	Model	Description
0020-059951	NPC-8208 Barebone	Barebone/Intel® C236/No CPU/No RAM/No Storage/2 x drawable SATA bay/4 x LAN module bays/1 x LAN/1 x PCIe8/250W ATX
0020-059961	NPC-8208 Barebone	Barebone/Intel® C236/No CPU/No RAM/No Storage/2 x drawable SATA bay/4 x LAN module bays/CFast/1 x LAN/1 x PCIe8/350W redundant ATX
0010-086661	NPC-8208	Intel® C236/i3-6100/8G DDR4/500G HDD/2 x drawable SATA bay/4 x LAN module bays/CFast/1 x LAN/1 x PCIe8/350W redundant ATX
0010-086671	NPC-8208	Intel® C236/i3-6100/8G DDR4/500G HDD/2 x drawable SATA bay/4 x LAN module bays/1 x LAN/1 x PCIe8/350W redundant ATX

NPC-8220 Performance Network Appliance with Intel® C612

Brief Introduction

NPC-8220 is a high-performance network application platform based on X86 architecture. The PC contains Intel® C612 chipset, supports up to two Intel® Xeon® processor E5-2600 V3/V4 family CPUs, onboard 16 DDR4 memory slots, and supports Windows 7/8/8.1/10, Windows Server 2008R2/2012/2012R2/2016 and Linux (Kernel 2.6 above) operating systems.

The PC adopts standard 2U, 19-inch rack mount and modular structure design, supports two standard PCIE X8 slots, one PCIE X8 slot (only provides X4 signal) and one CFast card expansion. The PC also supports four ENS slots, four 3.5/2.5-inch drawable HDD bays or supports 8 ENS slots and two 2.5-inch HDD bays, varying from different configurations. The PC supports single power supply or redundant power supply, and can meet various network security application needs on the market.

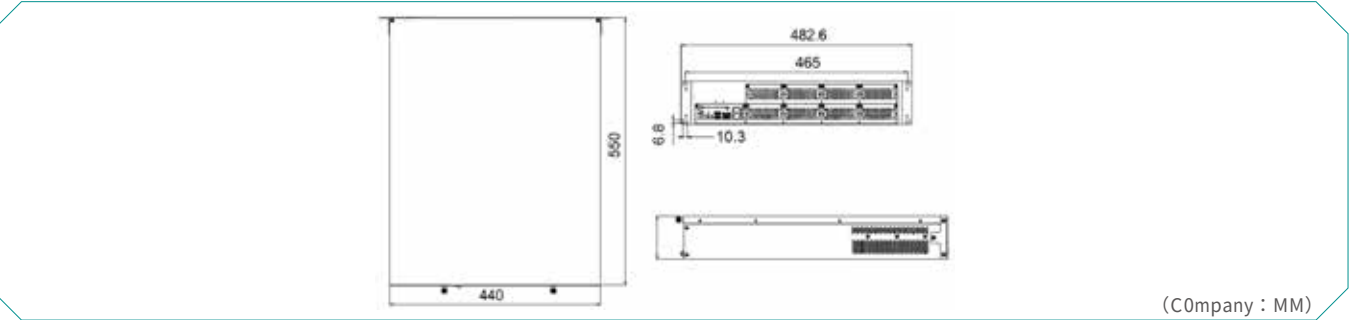
NPC-8220 can be widely used in firewall, anti-virus wall, load balance, Internet access management and audit, application delivery, flow traffic management, VPN, DNS, IDS/IPS, UTM and etc.



Features

- Based on Intel® C612
- Support Intel® Xeon® E5 dual-channel CPU
- Support 16 x DDR4 DIMMs up to 512GB
- Support 4 x 3.5" HDD and CFast card
- Onboard 2 x Gb LAN
- Support 4/8 LAN module bay (ENS)

Product size chart



Specifications

Items		Specification
System	CPU	Intel® Xeon® E5-2600 V3/V4 series
	Chipset	Intel® C612
Memory		16 x 288PIN DDR4 DIMMs, up to 512GB Support un-buffered ECC or Non-ECC memory
Storage	SATA	4 x 3.5" drawable SATA bay or 2 x 2.5" SATA bay
	mSATA	1 x CFast card socket optional
LAN		2 x 10/100/1000Mbps RJ45, LAN1 support PXE and IPMI
Expansion		2 x PCIEx8 3.0 (170mm L x 68.9mm H) 1 x PCIEx8 2.0 (x4 signal) (140mm L x 68.9mm H) 4/8 LAN module bay (ENS)
I/O	VGA	1 x VGA optional
	Console	1 x RJ45 type
	USB	2 x USB 2.0
LCD Module		Optional
Power Supply		AC 110V ~ 240V
Mechanical	Dimensions (W x H x D)	440 x 88.1 x 550 mm
	Weight	17.5kg
	Installation	2U rack mount
EMC&Safety		Meet CE, CCC
OS Support		Windows 7/8/10, Linux

Ordering Information

P/N	Model	Description
0020-060351	NPC-8220-01 Barebone	Barebone/Intel® C612/No CPU/No RAM/No storage/2 x LAN/4 x LAN module bays/4 x 3.5" SATA bay/ 550W redundant ATX
0020-060361	NPC-8220-02 Barebone	Barebone/Intel® C612/No CPU/No RAM/No storage/2 x LAN/8 x LAN module bays/2 x 2.5" SATA bay/ 550W ATX
0010-087771	NPC-8220-03	Intel® C612/ 2 x E5-2620V3/2 x 8G DDR4/500GB HDD/2 x LAN/4 x LAN module bays/4 x 3.5" SATA bay/ 550W redundant ATX
0010-087781	NPC-8220-04	Intel® C612/ 2 x E5-2620V3/2 x 8G DDR4/500GB HDD/2 x LAN/8 x LAN module bays/2 x 2.5" SATA bay/ 550W redundant ATX

NPC-8228 Mainstream 2U Network Appliance with Intel® C236/H110

Brief Introduction

NPC-8228 a high-performance network application platform based on X86 architecture. The PC contains Intel® H110/C236 chipset, supports LGA1151 package Intel 6th-generation and 7th-generation i3, i5, i7, Xeon E3-1200 v5/v6 family processors (Among them, H110 platform does not support Xeon E3-1200 v5/v6 family), onboard two DDR4 memory slots, and supports Windows 7 32bit/64bit, Windows 8.1 64bit, Windows10 64bit, and Linux(Kernel 2.6 above) operating systems.

The PC adopts standard 2U, 19-inch rack mount and modular structure design, onboard six Gigabit electrical ports, supports up to three-group ByPass, one PCIE X8 slot and one CFast card expansion (optional), also expandable to one (H110 chipset) or two (C236 chipset) ENS network modules. The PC can meet various network security application needs on the market.

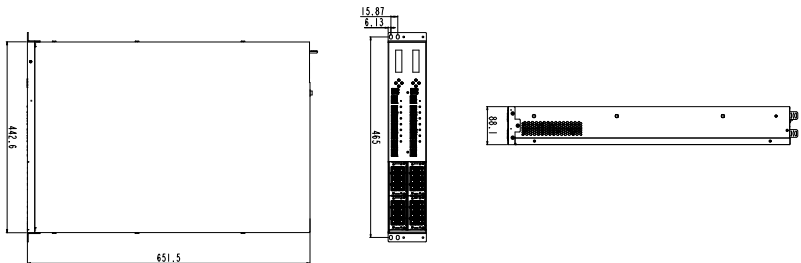
NPC-8228 can be widely used in firewall, anti-virus wall, load balance, Internet access management and audit, application delivery, flow traffic management, VPN, DNS, IDS/IPS, UTM and etc.



Features

- Based on Intel® C236/H110
- Support Intel® Xeon® E3, Core™ i7/i5/i3/Pentium®/Celeron® CPU
- Support 2 x DDR4 DIMMs up to 32GB
- Support 3.5" HDD and CFast card
- Onboard 6 x Gb LAN
- Support 1/2 LAN module bay (ENS)
- Optional CRPS 1+1 redundant power supply

Product size chart



(C0mpany : MM)

Specifications

Items		Specification
System	CPU	C236: Intel® Xeon® E3-1200 V5/V6 series, 6th/7th gen Core™ i7/i5/i3 H110: Intel® 6th/7th gen Core™ i7/i5/i3
	Chipset	Intel® C236/H110
Memory		2 x 288PIN DDR4 DIMMs, up to 32GB
Storage	SATA	1 x 3.5" SATA bay
	CFast	1 x CFast card socket optional
LAN		6 x 10/100/1000Mbps RJ45, LAN1 support wake-on-line and PXE Support up to 3 Bypass
Expansion		C236: 2 x LAN module bay (ENS) H110: 1 x LAN module bay (ENS)
I/O	VGA	1 x VGA optional
	Console	1 x RJ45 type
	USB	2 x USB 2.0
LCD Module		Optional
Power Supply		AC 110V ~ 240V
Mechanical	Dimensions (W x H x D)	440 x 88.1 x 500 mm
	Weight	11.3kg
	Installation	2U rack mount
EMC&Safety		Meet CE, CCC
OS Support		Windows 7/8/10, Linux

Ordering Information

P/N	Model	Description
0020-061831	NPC-8228-02 Barebone	Barebone dual motherboard/Intel® C236/E3-1275 V5/8GB DDR4/No storage/6 x LAN/CFast 2 Bypass/2 x LAN module bays/550W redundant ATX
0020-061841	NPC-8228-02 Barebone	Barebone dual motherboard/Intel® C236/i7-6700/8GB DDR4/No storage/6 x LAN/CFast 2 Bypass/2 x LAN module bays/550W redundant ATX
0020-061851	NPC-8228-02 Barebone	Barebone dual motherboard/Intel® C236/i3-6100/8GB DDR4/No storage/6 x LAN/CFast 2 Bypass/2 x LAN module bays/550W redundant ATX

EIS-2102 2U 19" Rackmount Industrial Server with Intel® C236

Brief Introduction

EIS-2102 is an industrial server based on Intel® C236 platform. It supports single socket Intel® Xeon® E3-1200 V5 series processor and 6th/7th Gen Core™ i7/i5/i3, Pentium®, Celeron® processor. EIS-2102 support onboard LSI RAID, professional IPMI remote management and multiple OS including: Win7 64bit, Win8.1, Win10, WinServer 2008R2, WinServer 2012R2, WinServer2016, Vmware vSphere 5.5 update 3 and above, RedHat® Enterprise Linux, Cent OS Linux and etc.

EIS-2102 is built by high quality sheet metal structure which ensure high reliability operation environment with good thermal design and vibration resistance performance.

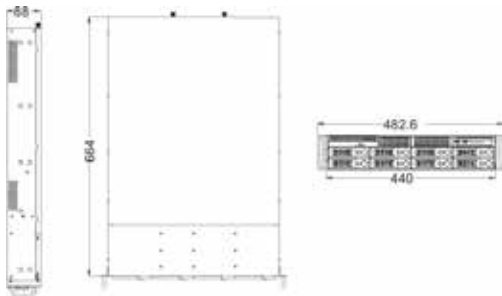
EIS-2102 is widely used in enterprise WEB application, printing, virtualization, information security, and surveillance.



Features

- Based on Intel® C236
- Support 4 x DDR4 DIMMs up to 64GB ECC
- Support Intel® Xeon® E3, Core™ i7/i5/i3/Pentium®/Celeron® CPU
- Support 8 x 3.5" HDD bay drawable
- Support 4 x PCIE expansion
- Support ATX and redundant PSU

Product size chart



(Company : MM)

Specifications

Items		Specification
System	CPU	Intel® Xeon® E3-1200 V5 series 6th/7th gen Core™ i7/i5/i3, Pentium®, Celeron®
	Chipset	Intel® C236
Memory		4 x 288PIN DDR4 DIMMs, support ECC/Non-ECC UDIMM, up to 64GB
Storage	SATA	8 x 3.5" drawable SATA/SAS bay Optional 2 x 2.5" HDD/SSD internal
	ODD	1 x slim DVD-ROM optional
LAN		2 x 10/100/1000Mbps RJ45, LAN1 support Wake-On-Lan and PXE 1 x IPMI, support Wake-On-Lan and system management
Expansion		1 x PCIe x8, support half-size add-on card 3 x PCIe x4, support half-size add-on card
I/O	VGA	1 x VGA
	COM	1 x DB9 RS232
	USB	4 x USB 3.0, 2 x USB 2.0
	IPMI	1 x IPMI
Power Supply		Optional
Mechanical	Dimensions (W x H x D)	440 x 88 x 664 mm
	Weight	15.85kg
	Installation	Rack mount
EMC&Safety		Meet CE, CCC
OS Support		Windows 7/8/10, WinServer 2003R2/2008R2/2012R2, Linux

Ordering Information

P/N	Model	Description
0020-061881	EIS-2102-01 barebone	EVOC 2U industrial server/C236/4 x DIMMs/8 x 3.5" SATA/SAS bay/4 x PCIE/2 x LAN/1 x COM/1 x VGA/No power supply
0020-061891	EIS-2102-02 barebone	EVOC 2U industrial server/C236/4 x DIMMs/8 x 3.5" SATA/SAS bay/LSI3008 RAID 0,1,10/4 x PCIE/2 x LAN/1 x COM/1 x VGA/No power supply
0010-100911	EIS-2102-01	EVOC 2U industrial server/C236/E3-1220 V5/16G ECC RAM/1TB HDD/4 x PCIE/2 x LAN/1 x COM/1 x VGA/500W ATX PSU
0010-100921	EIS-2102-02	EVOC 2U industrial server/C236/E3-1275 V5/16G ECC RAM/2 x 1TB HDD/ LSI3008 RAID 0,1,10/4 x PCIE/ 2 x LAN/1 x COM/1 x VGA/500W ATX PSU

EIS-2103E 2U 19" Rackmount Industrial Server with Intel® Q87

Brief Introduction

EIS-2103E is a 2U 19" rackmount industrial server based on Intel® Q87 chipset. It supports Win7, Win8, Win10, WinServer 2003, WinServer 2008, WinServer 2012 and Linux.

EIS-2103E is made by dual-layer aluminum-alloy structure with modular design, for vibration resistance, IP protection and EMC shielding.

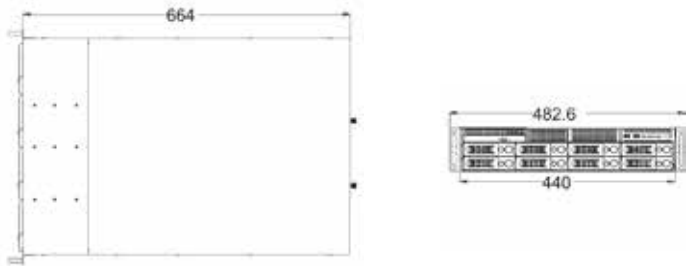
EIS-2103E is widely used in network storage, security and surveillance, IT communication, industrial automation, vehicle inspection and etc.



Features

- Based on Intel® Q87
- Support Intel® Xeon® E3, Core™ i7/i5/i3/Pentium®/Celeron® CPU
- Support 4 x DDR3 DIMMs up to 32GB
- Support up to 8 x 3.5" HDD drawble
- Support 4 x PCI, 3 x PCIE expansion slots
- Optional RAID 0,1,10,5,50,6,60

Product size chart



(C0mpany : MM)

Specifications

Items		Specification
System	CPU	Intel® Xeon® E3-1200 V3 series 4th Gen Core™ i7/i5/i3, Pentium®, Celeron®
	Chipset	Intel® Q87
Memory		4 x 240PIN DDR3 DIMMs, up to 32GB
Storage	SATA	Provide 4 x 3.5" SATA bay drawbale If RAID card installed, support 8 x 3.5" SATA bay drawable
	ODD	1 x slim DVD-ROM optional
LAN		2 x 10/100/1000Mbps RJ45, LAN1 support Wake-On-Lan
Expansion		1 x PCIEx16, support half-size add-on card 2 x PCIEx4, support half-size add-on card 4 x PCI, support half-size add-on card
I/O	VGA	1 x VGA
	DVI	1 x DVI-D
	COM	2 x DB9, support RS232/422/485
	USB	2 x USB 3.0, 4 x USB 2.0
	Audio	Mic-in/Line-in/Line-out
	PS/2	1 x PS/2 for KB/MS
Power Supply		AC 110V ~ 240V, support ATX and redundant PSU
Mechanical	Dimensions (W x H x D)	440 x 88 x 660 mm
	Weight	15.7kg
	Installation	Rack mount
EMC&Safety		Meet CE, CCC
OS Support		Windows 7/8/10, WinServer 2003/2008/2012, Linux

Ordering Information

P/N	Model	Description
0020-059981	EIS-2103E barebone	EVOC 2U industrial server/Q87/4 x DIMMs/6 x SATA/8 x SATA bay/2 x LAN/2 x COM/500W ATX
0010-087151	EIS-2103E	EVOC 2U industrial server/E3-1246V3/8G DDR3/1TB HDD/7 x SATA bay/2 x LAN/2 x COM/500W ATX

EIS-2206B 2U 19" Rackmount Industrial Server with Intel® C612

Brief Introduction

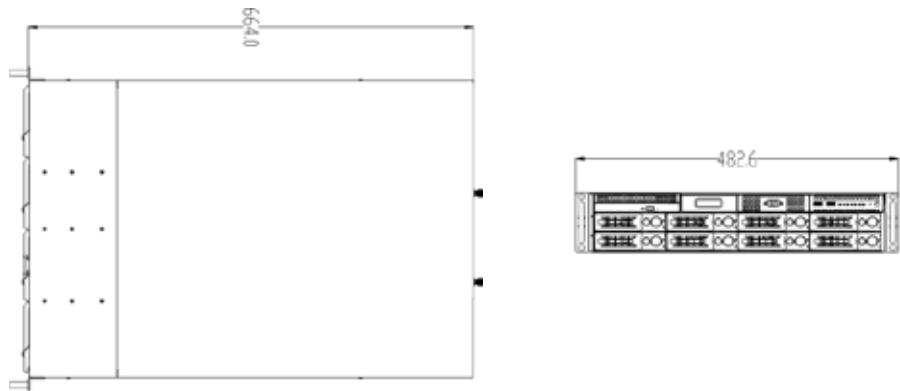
EIS-2206B is an industrial server based on Intel® C612 platform. It supports dual socket Intel® Xeon® E5-2600 V3/V4 series processor. EIS-2206B support onboard LSI RAID, professional IPMI remote management and multiple OS including: WinServer 2008R2, WinServer 2012R2, WinServer2016, Vmware vSphere 5.5 update 3 and above, RedHat® Enterprise Linux, Cent OS Linux and etc. EIS-2206B is built by high quality sheet metal structure which ensure high reliability operation environment with good thermal design and vibration resistance performance. EIS-2206B is widely used in enterprise WEB application, printing, virtualization, information security, and surveillance.



Features

- Based on Intel® C612
- Support dual socket Intel® Xeon® E5 2600 V3/V4 CPU
- Support 16 x DDR4 DIMMs, up to 1TB RDIMM ECC
- Support 8 x 3.5" HDD bay drawable, 2 x 2.5" SSD bay internal
- Support 6 x PCIE expansion
- Support ATX and redundant PSU

Product size chart



(C0mpany : MM)

Specifications

Items		Specification
System	CPU	Support dual socket Intel® Xeon® E5-2600 V3/V4 series
	Chipset	Intel® C612
Memory		16 x 288PIN DDR4 DIMMs, support RDIMM and LRDIMM Up to 512GB (RDIMM), 2TB (LRDIMM)
Storage	SATA	8 x 3.5" drawable SATA/SAS bay 2 x 2.5" HDD/SSD internal
	ODD	1 x slim DVD-ROM optional
LAN		2 x 10/100/1000Mbps RJ45, LAN1 support Wake-On-Lan 1 x IPMI, support Wake-On-Lan and system management
Expansion		2 x PCIe16, support half-size add-on card 4 x PCIe8, support half-size add-on card
I/O	VGA	1 x VGA
	COM	1 x DB9 RS232
	USB	4 x USB 3.0, 2 x USB 2.0
	IPMI	1 x IPMI
LCD Module		Support information display including: CPU temperature, system temperature, Vcore, fan speed
Power Supply		AC 110V ~ 240V, support ATX and redundant PSU
Mechanical	Dimensions (W x H x D)	482.6 x 88 x 664 mm
	Weight	19.75kg
	Installation	Rack mount
EMC&Safety		Meet CE, CCC
OS Support		WinServer 2008R2/2012R2, Linux

Ordering Information

P/N	Model	Description
0020-060541	EIS-2206B barebone	EVOC 2U industrial server/C612/16 x DIMMs/8 x 3.5" SATA bay/LSI SAS3 RAID 0,1,10/2 x LAN/1 x COM/1 x VGA/2 x PCIe16/4 x PCIe8/No PSU
0010-089321	EIS-2206B	EVOC 2U industrial server/1 x E5-2620V3/16G RECC/2 x 1TB HDD/LSI SAS3 RAID 0,1,10/DVD-ROM/ 2 x LAN/1 x COM/1 x VGA/2 x PCIe16/4 x PCIe8/500W ATX

EIS-2206H 2U 19" Rackmount Industrial Server with 12 Disks

Brief Introduction

EIS-2206H is a 2U high performance server with 12 disks, based on Intel® Grantely platform and support Intel® Xeon® E5-2600 V4 processor. It's a complement to 2U 8 disks products which meet general requirement of server market. EIS-2206H adopt modular design which is better for heat dissipation, maintenance and reliability. This model could be used in big data, cloud computing, distributed storage, database load and etc.



Features

Based on Intel® C612

Support dual socket Intel® Xeon® E5 2600 V4 CPU

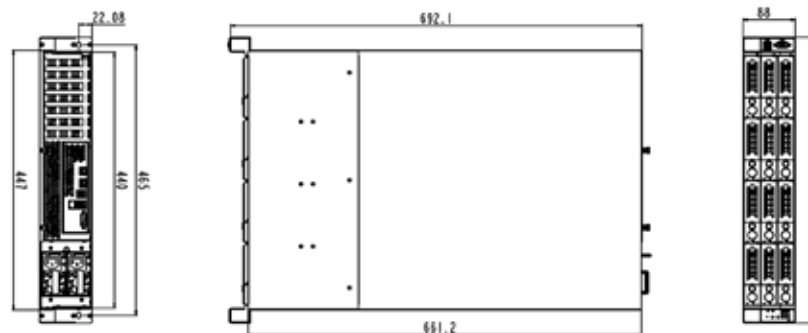
Support 16 x DDR4 DIMMs, up to 2TB

Support 12 x 3.5" HDD bay drawable

Support 6 x PCIE expansion

Support ATX and redundant PSU

Product size chart



(Company : MM)

Specifications

Items		Specification
System	CPU	Support dual socket Intel® Xeon® E5-2600 V4 series
	Chipset	Intel® C612
Memory		16 x 288PIN DDR4 DIMMs, support UDIMM and RDIMM Up to 2TB (LRDIMM)
Storage	SATA	12 x 3.5" drawable SATA/SAS bay
LAN		2 x 10/100/1000Mbps RJ45
Expansion		2 x PCIe16, support half-size add-on card 4 x PCIe8, support half-size add-on card
I/O	VGA	1 x VGA
	COM	1 x DB9 RS232
	USB	4 x USB 3.0, 2 x USB 2.0
	IPMI	1 x BMC
Power Supply		AC 110V ~ 240V, support ATX and redundant PSU
Mechanical	Dimensions (W x H x D)	447 x 88 x 664 mm
	Installation	Rack mount
Temperature		Operation 0 ~ 40°C; Storage -40 ~ 70°C
EMC&Safety		Meet CE, CCC
OS Support		WinServer 2008R2/2012R2, Linux

Ordering Information

P/N	Model	Description
0010-133621	EIS-2206H	EVOC 2U industrial server/C612/2 x E5-2620V4/2 x 16G RAM/3 x 1TB HDD/LSI9361*16I SAS3 Raid 0,1,5,10/12 x disk bay/2 x Gb LAN/RS232/VGA/6 x USB/2 x PCIe16/4 x PCIe8/800W redundant PSU
0020-064151	EIS-2206H Barebone	EVOC 2U industrial server/C612/No CPU/16 x DIMMs/LSI9361*16I SAS3 Raid 0,1,5,10/12 x disk bay/2 x Gb LAN/RS232/VGA/6 x USB/2 x PCIe16/4 x PCIe8/No PSU

EIS-2208 2U 19" Rackmount Industrial Server with Intel® C612

Brief Introduction

EIS-2208 is an industrial server based on Intel® C612 platform. It supports dual socket Intel® Xeon® E5-2600 V3/V4 series processor. EIS-2208 support onboard LSI RAID, professional IPMI remote management and multiple OS including: Win7 64bit, Win8.1, Win10, WinServer 2008R2, WinServer 2012R2, WinServer2016, Vmware vSphere 5.5 update 3 and above, RedHat® Enterprise Linux, Cent OS Linux and etc.

EIS-2208 is built by high quality sheet metal structure which ensure high reliability operation environment with good thermal design and vibration resistance performance.

EIS-2208 is widely used in enterprise WEB application, printing, virtualization, information security, and surveillance.



Features

Based on Intel® C612

Support dual socket Intel® Xeon® E5 2600 V3/V4 CPU

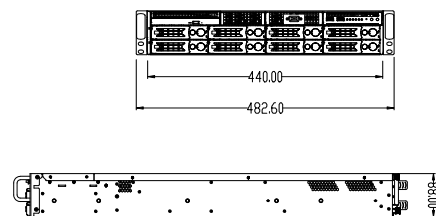
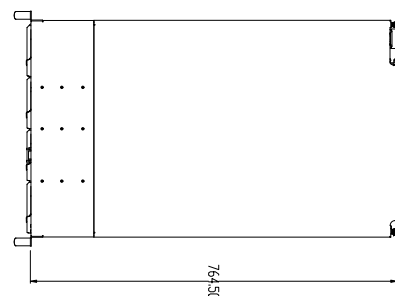
Support 16 x DDR4 DIMMs, up to 1TB RDIMM ECC

Support 8 x 3.5" HDD bay drawabe, 2 x 2.5" SSD bay internal

Support 8 x PCIE expansion

Support ATX and redundant PSU

Product size chart



(Company : MM)

Specifications

Items		Specification
System	CPU	Support dual socket Intel® Xeon® E5-2600 V3/V4 series
	Chipset	Intel® C612
Memory		16 x 288PIN DDR4 DIMMs, support RDIMM and LRDIMM Up to 512GB (RDIMM), 2TB (LRDIMM)
Storage	SATA	8 x 2.5"/3.5" drawabe SATA/SAS bay 2 x 2.5"/3.5" drawabe SATA bay Optional 4 x 2.5" SATA HDD/SSD internal
	ODD	1 x slim DVD-ROM optional
LAN		2/4 x 10/100/1000Mbps RJ45, LAN1 support Wake-On-Lan 1 x IPMI, support Wake-On-Lan and system management
Expansion		2 x PCIe16, support half-size add-on card 6 x PCIe8, support half-size add-on card
I/O	VGA	1 x VGA
	COM	1 x DB9 RS232
	USB	2/4 x USB 3.0, 2 x USB 2.0
	IPMI	1 x IPMI
LCD Module		Support information display including: CPU temperature, system temperature, Vcore, fan speed
Power Supply		AC 110V ~ 240V, support ATX and redundant PSU
Mechanical	Dimensions (W x H x D)	440 x 88 x 764.5 mm
	Weight	21.8kg
	Installation	Rack mount
EMC&Safety		Meet CE, CCC
OS Support		WinServer 2008R2/2012R2/2016, Linux

Ordering Information

P/N	Model	Description
0020-062691	EIS-2208/SVE-2902 1200W barebone	EVOC 2U industrial server/C612/16 x DIMMs/8 x 3.5" SATA bay/2 x LAN/6 x USB/1 x COM/2 x VGA/ 1 x IPMI/8 x PCIE/1200W ATX
0020-062701	EIS-2208/SVE-2602VD 800W barebone	EVOC 2U industrial server/C612/16 x DIMMs/8 x 3.5" SATA bay/2 x LAN/6 x USB/1 x COM/2 x VGA/ 1 x IPMI/8 x PCIE/800W ATX PSU
0010-111451	EIS-2208-R	EVOC 2U industrial server/1 x E5-2620 V4/8G DDR4/2 x 1TB HDD/2 x LAN/6 x USB/1 x COM/2 x VGA/1 x IPMI/8 x PCIE/800W redundant PSU
0010-111441	EIS-2208-R	EVOC 2U industrial server/1 x E5-2650 V4/2 x 8G DDR4/2 x 1TB HDD/2 x LAN/6 x USB/1 x COM/2 x VGA/1 x IPMI/8 x PCIE/800W redundant PSU
0010-111421	EIS-2208	EVOC 2U industrial server/2 x E5-2620 V4/2 x 16G DDR4/1 x 1TB HDD/2 x LAN/6 x USB/1 x COM/2 x VGA/1 x IPMI/8 x PCIE/1200W ATX PSU
0010-111431	EIS-2208	EVOC 2U industrial server/C612/16 x DIMMs/8 x 3.5" SATA bay/2 x LAN/6 x USB/1 x COM/2 x VGA/ 1 x IPMI/8 x PCIE/800W ATX PSU

EIS-2209 2U 19" Rackmount Industrial Server with Intel® C620

Brief Introduction

EIS-2209 is an industrial server based on Intel® C620 platform. It supports dual socket Intel® Xeon® Platinum/Gold/Silver/Bronze series processor. EIS-2209 support LSI RAID, professional IPMI remote management and multiple OS including: WinServer 2012R2, WinServer2016, RedHat® Enterprise Linux, Cent OS Linux and etc.

EIS-2209 is built by high quality sheet metal structure which ensure high reliability operation environment with good thermal design and vibration resistance performance.

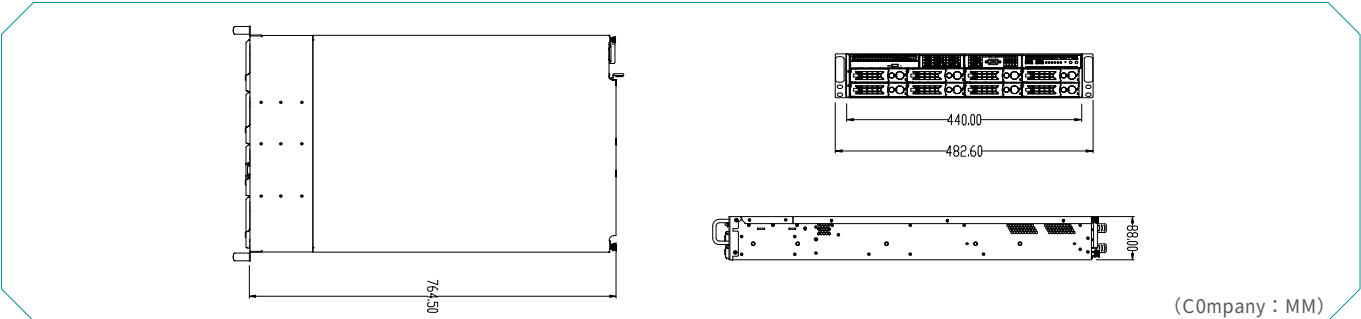
EIS-2209 is widely used in enterprise informatization, server virtualization, data center, cloud information security, AI and etc.



Features

- Based on Intel® C620
- Support dual socket Intel® Xeon® Platinum/Gold/Silver/Bronze CPU
- Support 24 x DDR4 DIMMs, up to 1.5TB RAM
- Support 10 x 3.5" HDD bay drawable, 4 x 2.5" SSD bay internal
- Support 8 x PCIE expansion
- Support ATX and redundant PSU

Product size chart



Specifications

Items		Specification
System	CPU	Support dual socket Intel® Xeon® Platinum/Gold/Silver/Bronze series processor
	Chipset	Intel® C620
Memory		24 x 288PIN DDR4 DIMMs, support RDIMM and LRDIMM Up to 1.5TB RAM
Storage	SATA	8 x 2.5"/3.5" drawable SATA/SAS bay 2 x 2.5"/3.5" drawable SATA bay Optional 4 x 2.5" SATA HDD/SSD internal
	ODD	1 x slim DVD-ROM optional
LAN		2/4 x 10/100/1000Mbps RJ45/SFP, LAN1 support Wake-On-Lan 1 x IPMI, support Wake-On-Lan and system management
Expansion		2 x PCIe x16, support half-size add-on card 6 x PCIe x8, support half-size add-on card
I/O	VGA	1 x VGA
	COM	1 x DB9 RS232
	USB	2/4 x USB 3.0, 2 x USB 2.0
	IPMI	1 x IPMI
LCD Module		Support information display including: CPU temperature, system temperature, Vcore, fan speed
Power Supply		AC 110V ~ 240V, support ATX and redundant PSU
Mechanical	Dimensions (W x H x D)	440 x 88 x 764.5 mm
	Weight	22.3kg
	Installation	Rack mount
EMC&Safety		Meet CE, CCC
OS Support		WinServer 2012R2/2016, Linux

Ordering Information

P/N	Model	Description
0020-061651	EIS-2209-R barebone	EVOC 2U industrial server/C620/24 x DIMMs/8 x 3.5" bay/2 x 2.5" bay/LSI SAS3 RAID 0,1,10/2LAN or 4LAN/6 x USB/1 x COM/2 x VGA/IPMI/4 x PCIE/No PSU
0020-061661	EIS-2209-ES barebone	EVOC 2U industrial server/C620/24 x DIMMs/8 x 3.5" bay/2 x 2.5" bay/LSI SAS3 RAID 0,1,10,5,50,6,60/2LAN or 4LAN/6 x USB/1 x COM/2 x VGA/IPMI/4 x PCIE/No PSU
0010-098061	EIS-2209-R	EVOC 2U industrial server/EIS -2209-R barebone/2 x Xeon® Bronze 3106/2 x 16G DDR4/2 x 1TB HD-D/550W redundant PSU
0010-098071	EIS-2209-ES	EVOC 2U industrial server/EIS -2209-ES barebone/2 x Xeon® Silver 4116/2 x 16G DDR4/3 x 1TB HD-D/800W ATX PSU

ERC-1004B

Fanless Embedded PC for AFC System

Brief Introduction

ERC-1004B is a fanless, low power consumption IPC which adopt Intel® Celeron® J1900 CPU and support Win7, Linux OS. ERC-1004B is made by galvanized sheet and aluminum chassis. Fanless and compact with modular design, it features with good EMC, dust-proof, heat dissipating, vibration resistance performace rich I/O and expansion.

ERC-1004B is widely used in AFC system as equipment control unit in public transportation, such as automatic gate machine, automatic vending machine and semi-automatic vending machine.



Features

- Based on Intel® BayTrail and Intel® Celeron® J1900
- Fanless and all-sealed design
- Onboard 2G/4G/8G RAM
- Support 512KB NVRAM
- Board to board connector, reliable design
- SATA, mSATA and CFast optional
- Up to 14 x COM/6 x USB/3 x LAN/4 x display/32ch GPIO
- Optional DC 9 ~ 36V

Product size chart



(C0mpany : MM)

Specifications

Items		Specification
System	CPU	Intel® Celeron® J1900 2.0GHz 4cores
	Chipset	Intel® BayTrail
Memory		Onboard 2G/4G/8G DDR3L
Storage	SATA	1 x SATA or 1 x mSATA
	ODD	1 x CFast slot
Display		Provide up to 4 display connector VGA1, VGA2, VGA3, LVDS
LAN		Up to 3 x 10/100/1000Mbps RJ45, LAN1 support Wake-On-Lan
Audio		Mic-in/Line-out
Expansion		1 x Mini PCIE with SIM card slot 1 x PCI optional
I/O	GPIO	32ch GPIO by DB44
	COM	Up to 14 x COM, COM1 ~ COM4 support RS232/422/485
	USB	1 x USB 3.0, 5 x USB 2.0
Power Supply		DC 12V or DC 9 ~36V
Mechanical	Dimensions (W x H x D)	260 x 91.7 x 165 mm
	Weight	2.3kg
	Installation	Rack mount
Environment		Operation Temperature: -20 ~ 70°C (industrial SSD/CFast) Storage Temperature: -40 ~ 80°C Humidity: 40°C, 95%RH
Reliability		MTBF ≥ 50,000h MTTR ≤ 0.5h
Safety		Meet GB4943
OS Support		Windows 7, Linux

Ordering Information

P/N	Model	Description
0010-113031	ERC-1004B-4G	Intel® J1900/4G RAM/64GB SSD/16GB CFast/512KB NVRAM/2 x LAN/6 x USB/14 x COM/1 x VGA/1 x LVDS/Audio/PS2/1 x Mini PCIE/DC 12V

TRW-8271 EVOC 2U 19" Rackmount IPC for Rail Transportation EN50155 Certified

Brief Introduction

TRW-8271 SERIES is a fanless sealed embedded PC. The PC is made of Al-alloy material, and the system architecture adopts modular board+backplane solution, which features simple structure. Highly reliable connectors are used for connection among the modules, which ensures highly reliable operating environment. In addition, the PC has excellent dust-proof, heat dissipation and anti-vibration environment.

The PC supports Intel® i7-6822EQ/i5-6442EQ CPU, multiple HDD expansion, multiple video ports. It supports Windows 7,Windows 10,LINUX, and etc.

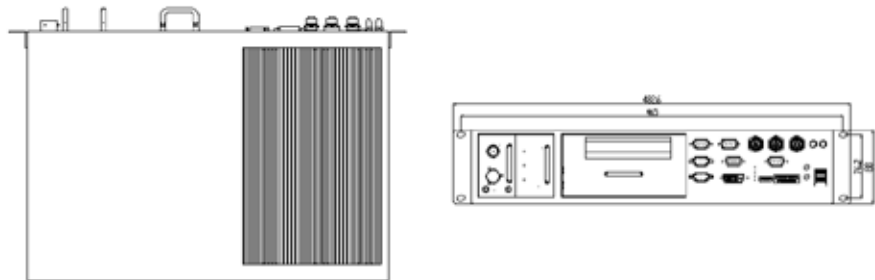
The PC is a PIS and CCTV system tailored for railway. It is used for video play, multi-media video flow transmission, surveillance video recording, network content visit, and etc. The PC meets GB/T 25119-2010(EN 50155:2007),GB/T 24338.4-2009(EN50121-3-2:2006) standards.



Features

- Based on Intel® CM236
- Support 6th Gen Intel® Core™ i7/i5 CPU
- Support 4 x SATA bay and 1 x mSATA
- Up to 3 x Gb LAN with M12-A connector
- Support DC/AC/Battery/Super-Capacitor power supply
- Meet EN50155 EMC/Safety

Product size chart



(Company : MM)

Specifications

Items		Specification
System	CPU	Onboard Intel® Core™ i7-6822EQ 2.0GHz, Onbaord Intel® Core™ i5-6442EQ 1.9GHz
	Chipset	Intel® CM236
Memory		Onboard 4G DDR4 with 1 x 260PIN DDR4 SODIMM, up to 16G, Total up to 20G
Storage	SATA	4 x SATA bay
	mSATA	1 x mSATA
Display		VGA, DVI-D, HDMI, Support tri-independent display
LAN		Up to 3 x 10/100/1000Mbps M12-A, LAN1 support Wake-On-Lan
Audio		Mic-in/Line-out
Expansion		1 x PCI or 1 x PCIe4 (x16 connector), 1 x Mini PCIE with SIM slot
I/O	GPIO	8ch GPIO by DB9 female
	COM	4 xCOM DB9 support RS232/422/485 (2 of them are isolated)
	USB	2 x USB 3.0
	Audio Output	1 x 4PIN terminal block
Power Supply		DC 60 ~ 260V or AC 90 ~ 260V, Lead-acid battery, Super-Capacitor (discharge time ≥ 90S) optional
Mechanical	Dimensions	440 x 88 x 260 mm (W x H x D)
	Weight	9.9kg
	Installation	Rack mount
Environment		Operation Temperature: -25 ~ 55°C (industrial SSD/CFast) Storage Temperature: -40 ~ 70°C Humidity: 40°C, 95%RH
Reliability		MTBF ≥ 50,000h, MTTR ≤ 0.5h
EMC		EMI: meets related requirements of EN50121-3-2 Radiation disturbance:EN55022 Class A Conduction disturbance:EN55022 Class A relax 20dB EMS: ESD:EN 61000-4-2 Level 3 Burst immunity:EN 61000-4-4 Level 3 Surge immunity:EN61000-4-5 Level 3 Conduction immunity:EN61000-4-6 Level 3 Radiation immunity:EN61000-4-3 Level 3 Power frequency magnetic field immunity: EN61000-4-6,GB/T 17626.8-2006 Level 4 Pulse magnetic field immunity:GB/T 17626.9-1998 Level 4 Voltage sag and short interruptions:GB/T 17626.29-2006
Safety		Meets requirements of EN50155-2007 Insulation resistance: Insulation resistance from power supply to enclosure (500V megohmmeter) ≥100MΩ Insulation resistance from signal end to enclosure (500V megohmmeter) ≥100MΩ Power-frequency withstand voltage test: After AC1000Vr.m.s and 50Hz test voltage is applied between power supply and enclosure for a duration of 1min, no breakdown or flashover occurs. After AC500Vr.m.s and 50Hz test voltage is applied between signal end and enclosure for a duration of 1min, no breakdown or flashover occurs.
OS Support		Windows 7/8/10, Linux

Ordering Information

P/N	Model	Description
0010-112911	TRW-8271-01	EVOC 2U rackmount rail IPC/Intel® i7-6822EQ/4G DDR4/128G mSATA/2 x M12-A LAN/PCI/DC 110V/ Battery
0010-112921	TRW-8271-01	EVOC 2U rackmount rail IPC/Intel® i5-6442EQ/4G DDR4/128G mSATA/2 x M12-A LAN/PCIE/DC 110V/ Battery
1040-100411	TRW-BATTERY-03	Battery module
2100-112401	Super-Capacitor	Super-Capacitor module/12V/30W/90S
1040-100421	TRW-POWER-03	110V/DC power module/Terminal Block

SPC-8271B 2U 19" Rackmount Industrial PC IEC 61850-3 certified

Brief Introduction

SPC-8271B is a 2U 19" rackmount industrial PC dedicated for substation application. Based on Intel® C236 chipset, it supports Intel® Xeon® E3-1200 V5/V6 series and 6th/7th Gen Core™ i7/i5/i3, Pentium®, Celeron® processor. SPC-8271B support Win7, Win8.1, Win10, Cent OS Linux, RedHat® Linux and etc.

SPC-8271B is built by high quality metal structure, provide a plenty of LAN ports. And it features with good dust-proof, deat-dissipation and EMC performance.

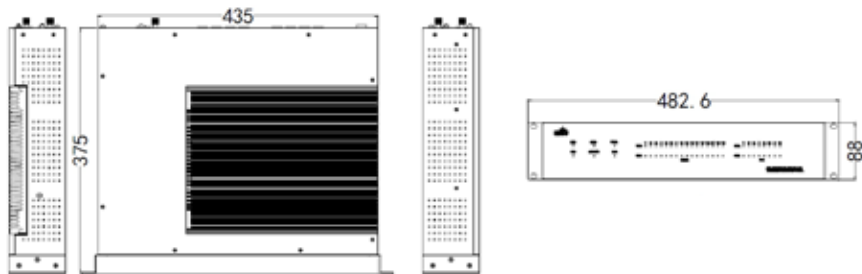
SPC-8271B could be used as substation remote terminal management, smart grid dispatching communication management, metro PSCADA and FEP with IEC 61850-3 certified.



Features

- Based on Intel® C236
- Support Intel® Xeon® E3, Core™ i7/i5/i3/Pentium®/Celeron® CPU
- Support 4 x DDR4 DIMMs up to 64GB ECC
- Support 8 x 3.5" HDD bay drawable
- Support 4 x PCIE expansion
- Support ATX and redundant PSU

Product size chart



(C0mpany : MM)

Specifications

Items		Specification
System	CPU	Intel® Xeon® E3-1200 V5/V6 series 6th/7th gen Core™ i7/i5/i3, Pentium®, Celeron®
	Chipset	Intel® C236
Memory		2 x 288PIN DDR4 DIMMs, support ECC/Non-ECC UDIMM, up to 32GB
Storage	SATA	1 x 3.5" SATA bay, 1 x 2.5" SATA bay
	CFast	1 x CFast slot
LAN		Onboard 8 x GbE RJ45 Additional 8 x GbE RJ45 and 8 x GbE SFP by ENS module
Expansion		2 x ENS module slots 1 x PCIe8
I/O	Console	1 x RJ45 console, support RS232
	COM	1 x DB9 RS485
	USB	1 x USB internal
	VGA	1 x VGA internal
Power Supply		AC 110V ~ 240V, redundant PSU
Mechanical	Dimensions	428.4 x 88 x 376.8 mm
	Weight	10kg
	Installation	Rack mount
Environment		Operation Temperature: -5 ~ 45°C (industrial SSD/CFast) Storage Temperature: -25 ~ 70°C Humidity: 40°C, 95%RH
Reliability		MTBF ≥ 50,000h, MTTR ≤ 0.5h
EMC		Meet IEC 61850 Meet GB/T 15153-1 <RTU equipment and system> Radiation Emission GB 9254-2008 Class A Conduction Emission GB 9254-2008 Class A Electrostatic Discharge GB/T 17626.2.2006 Class IV Pulse Immunity GB/T 17626.4.2006 Class IV Surge immunity GB/T 17626.5.2008 Class IV Conduction Immunity GB/T 17626.6.2008 Class III Oscillation Wave Immunity GB/T 17626.12.1998 Class III RF Electromagnetic Field Radiation Immunity GB/T 17626.3.2006 Class III Pulse MF Immunity GB/T 17626.9.1998 Class V Damped Oscillating MF Immunity GB/T 17626.10.1998 Class V PFMF Immunity GB/T 17626.8.2006 Class V Voltage Dip, Short Interruption, Voltage Change GB/T 17626.11.2008
Safety		Meet GB4943
OS Support		Windows 7/8/10, Linux

Ordering Information

P/N	Model	Description
0010-118041	SPC-8271B	EVOC 2U rackmount dedicated IPC/Intel® E3-1225 V6 3.3GHz/16G DDR4/256GB SSD/1TB HDD/16 x RJ45 LAN/8 x SFP LAN/1 x Console/1 x RS485 isolated/150W redundant PSU/Power loss alarm