

2021 - 2022 PRODUCT GUIDE



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High-performance Fanless Systems

Series		ECX-2000				
Model No.		ECX-2025R/2025FR	ECX-2025/2025F	ECX-2000-PoE/ ECX-2000F-PoE	ECX-2000-PoE/ ECX-2000F-PoE	ECX-2000-6FR/ ECX-2000F-6FR
Product Image						
System	CPU	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)
	Chipset	Intel® W480E	Intel® W480E	Intel® W480E	Intel® W480E	Intel® W480E
	BIOS	AMI	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz
	Memory Capacity	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
	Graphics	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
	Ethernet	Intel® I219LM, Intel® I210, Intel® I225	Intel® I219LM, Intel® I210, Intel® I225	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210, Intel® I350
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	NA	NA	NA	NA	NA
	DVI-I	1	1	1	1	1
	DVI-D	1	1	1	1	1
	DisplayPort	1	1	1	1	1
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)	6 (External)	6 (External)
	USB 2.0	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
	GigE LAN	9 (3-port 2.5G, 4 w/PoE*)	9 (3-port 2.5G, 4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)	6 (2 w/SFP+)
	PoE LAN	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	NA
	SFP	NA	NA	NA	NA	2
	M12	NA	NA	NA	NA	NA
	CAN Bus	NA	NA	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA	16 GPIO
	Isolated DIO	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	NA
	Others	2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)
Storage	SATA III	2	2	2	2	2
	SATA II	NA	NA	NA	NA	NA
	CFast	NA	NA	NA	NA	NA
	mSATA	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)
	M.2	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
	Micro SD	1 (External)	1 (External)	1 (External)	1 (External)	1 (External)
Expansion	Mini PCIe	1	1	1	1	1
	SIM Card	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)
	M.2	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230
	SUMIT A, B	NA	NA	2 (Optional)	2 (Optional)	NA
Power	Input	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V
	Connector	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN
	Surge Protection	80V	80V	80V	80V	80V
	Ignition Control	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)
	Remote Switch	Yes	Yes	Yes	Yes	Yes
Dimensions (W x L x H)		260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")
Weight		3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)
Mounting		Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
Operating Temperature		-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

					ECX-1000
ECX-2000-6F/ ECX-2000F-6F	ECX-2000-4R/ ECX-2000F-4R	ECX-2000-4G/ ECX-2000F-4G	ECX-2000-2R/ ECX-2000F-2R	ECX-2000-2G/ ECX-2000F-2G	ECX-1000-9R
					
Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
Intel® W480E	Intel® W480E	Intel® W480E	Intel® W480E	Intel® W480E	Intel® C246
AMI	AMI	AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2666MHz
Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210, Intel® 82574L
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
NA	NA	NA	NA	NA	NA
1	1	1	1	1	1
1	1	1	1	1	1
1	1	1	1	1	1
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
6 (External)	6 (External)	6 (External)	6 (External)	6 (External)	6 (External)
1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
6 (2 w/SFP+)	4	4	2	2	9 (4 w/PoE*)
NA	NA	NA	NA	NA	4 (IEEE 802.3at)
2	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
16 GPIO	16 GPIO	16 GPIO	16 GPIO	16 GPIO	NA
NA	NA	NA	NA	NA	16 (8 DI, 8 DO)
NA	2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)
2	2	2	2	2	2
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	1
1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	2 (Mini PCIe)
1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
1 (External)	1 (External)	1 (External)	1 (External)	1 (External)	NA
1	1	1	1	1	2
2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (External)
- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	1 Key E 2230
NA	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)	NA
DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 6V to 36V
Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN
80V	80V	80V	80V	80V	80V
Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes
Yes	Yes	Yes	Yes	Yes	Yes
260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")
3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)
Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1

High-performance
Fanless Systems

2

GPU Computing
Systems

3

10GigE Embedded
Systems

4

Expandable
Fanless Systems

5

Ultra-Compact
Fanless Systems

6

Rackmount
Systems

7

Industrial Multi-
Touch Computers/
Displays

8

Industrial
Motherboards

9

Embedded
Peripherals

High-performance Fanless Systems

Series		ECX-1000				
Model No.		ECX-1000-9GD	ECX-1000-PoER	ECX-1000-PoE	ECX-1000-6FR	ECX-1000-6F
Product Image						
System	CPU	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)				
	Chipset	Intel® C246				
	BIOS	AMI				
	Memory Type	260-pin SO-DIMM, DDR4 2666MHz				
	Memory Capacity	Max 64GB, 2 SO-DIMM				
	Graphics	Intel® UHD 630				
	Ethernet	Intel® I219LM, Intel® I210, Intel® 82574L				
	Audio	Realtek ALC888S-VD				
	Super I/O	IT8786E				
	OS Support	Windows 10, Linux				
Display I/O	VGA	NA				
	DVI-I	1				
	DVI-D	1				
	DisplayPort	1				
I/O Interface	Serial	4 RS-232/422/485				
	USB 3.0/3.1/3.2	6 (External)				
	USB 2.0	1 (Internal)				
	GigE LAN	9 (4 w/PoE*)				
	PoE LAN	4 (IEEE 802.3at)				
	SFP	NA				
	M12	NA				
	CAN Bus	NA				
	Audio	1 Mic-in, 1 Line-out				
	GPIO	NA				
	Isolated DIO	16 (8 DI, 8 DO)				
	AIO	NA				
	Others	NA				
		2 SSD/HDD Tray (External)				
Storage	SATA III	2				
	SATA II	NA				
	CFast	1				
	mSATA	2 (Mini PCIe)				
	M.2	1 Key M 2280				
	Micro SD	NA				
Expansion	Mini PCIe	2				
	SIM Card	2 (External)				
	M.2	1 Key E 2230				
	SUMIT A, B	NA				
Power	Input	DC-in 6V to 36V				
	Connector	Terminal Block, Mini-DIN				
	Surge Protection	80V				
	Ignition Control	Yes				
Power	Remote Switch	Yes				
Dimensions (W x L x H)		260 x 175 x 79 mm (10.2" x 6.9" x 3.1")				
Weight		3.8 kg (8.38 lb)				
Mounting		Wallmount, DIN Rail, 2U Rackmount				
Operating Temperature		-40°C to 75°C (-40°F to 167°F)				
Storage Temperature		-40°C to 85°C (-40°F to 185°F)				
Humidity		5% to 95%, non-condensing				
Vibration		IEC 60068-2-64				
Shock		IEC 60068-2-27				
Certification		CE, FCC, EN50155, EN50121-3-2				

				ECX-1000 AIO	
ECX-1000-4R	ECX-1000-4G	ECX-1000-2R	ECX-1000-2G	ECX-1200 AIO	ECX-1100 AIO
					
Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
Intel® C246	Intel® C246	Intel® C246	Intel® C246	Intel® C246	Intel® C246
AMI	AMI	AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
NA	NA	NA	NA	1	1
1	1	1	1	NA	NA
1	1	1	1	1	1
1	1	1	1	2	2
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
6 (External)	6 (External)	6 (External)	6 (External)	6 (External)	6 (External)
1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
4	4	2	2	6 (4 w/PoE*)	2
NA	NA	NA	NA	4 (IEEE 802.3at)	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
16 GPIO	16 GPIO	16 GPIO	16 GPIO	32 (16 DI, 16 DO)	16 GPIO
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	32 AI, 2 AO	32 AI, 2 AO
2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)
2	2	2	2	2	2
NA	NA	NA	NA	NA	NA
1	1	1	1	1 (External)	1 (External)
2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key B 2280, 1 Key M 2280	1 Key B 2280, 1 Key M 2280
NA	NA	NA	NA	NA	NA
2	2	2	2	2	2
2 (External)	2 (External)	2 (External)	2 (External)	3 (External)	3 (External)
1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)
DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V
Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block	Terminal Block
80V	80V	80V	80V	80V	80V
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")
3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	4.6 kg (10.14 lb)	4.6 kg (10.14 lb)
Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1
High-performance
Fanless Systems

2
GPU Computing
Systems

3
10GigE Embedded
Systems

4
Expandable
Fanless Systems

5
Ultra-Compact
Fanless Systems

6
Rackmount
Systems

7
Industrial Multi-
Touch Computers/
Displays

8
Industrial
Motherboards

9
Embedded
Peripherals

High-performance Fanless Systems

Series		SPC-5600		IVH-9000		
Model No.		SPC-5600	SPC-5600A	IVH-9204MX ICY/ICYU	IVH-9204MX ICY4/ICY4U	IVH-9204MXC
Product Image						
System	CPU	Intel® Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (KBL-S/SKL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (KBL-S/SKL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (KBL-S/SKL-S)
	Chipset	Intel® H310	Intel® H310	Intel® C236	Intel® C236	Intel® C236
	BIOS	AMI	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2400/2133 MHz	260-pin SO-DIMM, DDR4 2400/2133 MHz	260-pin SO-DIMM, DDR4 2400/2133 MHz
	Memory Capacity	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
	Graphics	Intel® UHD 630	Intel® UHD 630	Intel® HD 630/530	Intel® HD 630/530	Intel® HD 630/530
	Ethernet	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Windows 8.1, Windows 7, Linux
Display I/O	VGA	NA	NA	NA	NA	NA
	DVI-I	NA	NA	1	1	1
	DVI-D	1	1	1	1	1
	DisplayPort	2	2	1	1	1
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	4 (External)	4 (External)	8 (External)	8 (External)	8 (External)
	USB 2.0	2 (Internal)	2 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
	GigE LAN	4	4	6 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)
	PoE LAN	NA	NA	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)
	SFP	NA	NA	NA	NA	NA
	M12	NA	NA	4 (X-coded, PoE*)	4 (X-coded, PoE*)	4 (X-coded, PoE*)
	CAN Bus	NA	NA	NA	NA	2
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA	NA
	Isolated DIO	NA	NA	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
	Others	NA	NA	6 SSD/HDD Tray (External 15mm in height)	4 SSD/HDD Tray (External 15mm in height)	4 SSD/HDD Tray (External)
Storage	SATA III	2	2	6	4	4
	SATA II	NA	NA	NA	NA	NA
	CFast	NA	NA	1	1	1
	mSATA	1 (Mini PCIe)	1 (Mini PCIe)	2 (Mini PCIe)	3 (Mini PCIe)	2 (Mini PCIe)
	M.2	NA	NA	NA	NA	NA
	Micro SD	NA	NA	NA	NA	NA
Expansion	Mini PCIe	2	2	2	3	2
	SIM Card	1 (Internal)	1 (Internal)	3 (External)	3 (External)	3 (External)
	M.2	NA	NA	NA	NA	NA
	SUMIT A, B	NA	NA	NA	NA	NA
Power	Input	DC-in 12V	DC-in 9V to 36V	DC-in 16V to 160V (w/4kV Isolation)	DC-in 16V to 160V (w/4kV Isolation)	DC-in 6V to 36V
	Connector	Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block
	Surge Protection	NA	NA	500V	500V	80V
	Ignition Control	NA	NA	Yes	Yes	Yes
	Remote Switch	Yes	Yes	Yes	Yes	Yes
Dimensions (W x L x H)		209 x 151 x 75 mm (8.2" x 5.9" x 3.0")	209 x 151 x 75 mm (8.2" x 5.9" x 3.0")	260 x 215 x 155 mm (10.2" x 8.5" x 6.1")	260 x 215 x 155 mm (10.2" x 8.5" x 6.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")
Weight		2.4 kg (5.29 lb)	2.7 kg (5.95 lb)	10 kg (22.04 lb)	10 kg (22.04 lb)	4.5 kg (9.92 lb)
Mounting		Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount	Wallmount	Wallmount, DIN Rail, 2U Rackmount
Operating Temperature		-25°C to 60°C (-13°F to 140°F)	-25°C to 60°C (-13°F to 140°F)	IVH-9204MX ICY : -40°C to 55°C (-40°F to 131°F) IVH-9204MX ICYU : 0°C to 40°C (32°F to 104°F)	IVH-9204MX ICY4 : -40°C to 55°C (-40°F to 131°F) IVH-9204MX ICY4U : 0°C to 40°C (32°F to 104°F)	-40°C to 75°C (-40°F to 167°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155:2017, EN50121-3-2, N45545-2	CE, FCC, EN50155:2017, EN50121-3-2, N45545-2	CE, FCC, EN50155, EN50121-3-2

IVH-9204MX	IVH-9200M	IVH-9200	IVH-9016-PoER	IVH-9008-PoER	IVH-9000-2R
					
Intel® Xeon® / Core™ i7/i5/i3 Processor (KBL-S/SKL-S)	Intel® Xeon® / Core™ i7/i5/i3 Processor (KBL-S/SKL-S)	Intel® Xeon® / Core™ i7/i5/i3 Processor (KBL-S/SKL-S)	Intel® Xeon® E3-1505M v5/ Core™ i7-6820EQ/ i5-6440EQ	Intel® Xeon® E3-1505M v5/ Core™ i7-6820EQ/ i5-6440EQ	Intel® Xeon® E3-1505M v5/ Core™ i7-6820EQ/ i5-6440EQ
Intel® C236	Intel® C236	Intel® C236	Intel® CM236	Intel® CM236	Intel® CM236
AMI	AMI	AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2400/2133 MHz	260-pin SO-DIMM, DDR4 2400/2133 MHz	260-pin SO-DIMM, DDR4 2400/2133 MHz	260-pin SO-DIMM, DDR4 2133MHz	260-pin SO-DIMM, DDR4 2133MHz	260-pin SO-DIMM, DDR4 2133MHz
Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
Intel® HD 630/530	Intel® HD 630/530	Intel® HD 630/530	Intel® HD P530/530	Intel® HD P530/530	Intel® HD P530/530
Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210, Intel® I350
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Windows 8.1, Windows 7, Linux
NA	NA	NA	NA	NA	NA
1	1	1	NA	NA	NA
1	1	1	1	1	1
1	1	1	2	2	2
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
8 (External)	8 (External)	8 (External)	4 (External)	4 (External)	4 (External)
1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
6 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)	18 (16 w/PoE*)	10 (8 w/PoE*)	2
4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	16 (IEEE 802.3at)	8 (IEEE 802.3at)	NA
NA	NA	NA	NA	NA	NA
4 (X-coded, PoE*)	4 (A-coded, PoE*)	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	NA	NA	16 GPIO (Internal)	16 GPIO (Internal)	16 GPIO (Internal)
32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)
4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)
4	4	4	6	6	6
NA	NA	NA	NA	NA	NA
1	1	1	1	1	1
3 (Mini PCIe)	3	3	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
3	3	3	4	4	4
3 (External)	3 (External)	3 (External)	4 (3 External, 1 Internal)	4 (3 External, 1 Internal)	4 (3 External, 1 Internal)
NA	NA	NA	NA	NA	NA
NA	NA	NA	2 (Optional)	2 (Optional)	2 (Optional)
DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 78V	DC-in 6V to 78V	DC-in 6V to 78V
Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block
80V	80V	80V	200V	200V	200V
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")
4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	4.2 kg (9.26 lb)	4.2 kg (9.26 lb)	4.2 kg (9.26 lb)
Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-25°C to 70°C (-13°F to 158°F)	-25°C to 70°C (-13°F to 158°F)	-25°C to 70°C (-13°F to 158°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1 High-performance Fanless Systems

2 GPU Computing Systems

3 10GigE Embedded Systems

4 Expandable Fanless Systems

5 Ultra-Compact Fanless Systems

6 Rackmount Systems

7 Industrial Multi-Touch Computers/Displays

8 Industrial Motherboards

9 Embedded Peripherals

GPU Computing Systems

Series		EVS-2000		EVS-1000	
Model No.		EVS-2000	EVS-2000F	EVS-1000	EVS-1100
Product Image					
System	CPU	Intel® Xeon®/Core™ i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (KBL-S/SKL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (KBL-S/SKL-S)
	Chipset	Intel® W480E	Intel® W480E	Intel® C236	Intel® C236
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2400/2133 MHz	260-pin SO-DIMM, DDR4 2400/2133 MHz
	Memory Capacity	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
	Graphics	- Intel® UHD 630 - MXM Graphics (By request)	- Intel® UHD 630 - MXM Graphics (By request)	- Intel® HD 630/P530/530 - MXM Graphics (By request)	- Intel® HD 630/P530/530 - MXM Graphics (By request)
	Ethernet	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Windows 8.1, Windows 7, Linux
Display I/O	VGA	1	1	1	1
	DVI-I	NA	NA	NA	NA
	DVI-D	1	1	1	1
	DisplayPort	2	2	6	6
I/O Interface	Serial	3 RS-232/422/485	3 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)	6 (External)
	USB 2.0	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
	GigE LAN	2	2	2	2
	PoE LAN	NA	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA
	Isolated DIO	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
Storage	Others	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)
	SATA III	2	2	2	2
	CFast	NA	NA	1	1
	mSATA	2 (Mini PCIe)	2 (Mini PCIe)	3 (Mini PCIe)	3 (Mini PCIe)
	M.2	- 1 Key B 2280 - 1 Key M 2280	- 1 Key B 2280 - 1 Key M 2280	NA	NA
	Micro SD	1	1	NA	NA
	Mini PCIe	1	1	3	3
	SIM Card	1 (Nano SIM, External)	1 (Nano SIM, External)	3 (External)	3 (External)
Expansion	M.2	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	NA	NA
	PCI/PCIe	1 PCI/PCIe x4	1 PCI/PCIe x4	1 PCI/PCIe x4	1 PCI/PCIe x4
	SUMIT A, B	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)
	Input	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 10V to 36V	DC-in 10V to 36V
Power	Connector	Terminal Block	Terminal Block	Terminal Block	Terminal Block
	Surge Protection	80V	80V	80V	80V
	Ignition Control	Yes (SW IGN)	Yes (SW IGN)	Yes	Yes
	Remote Switch	Yes	Yes	Yes	Yes
Dimensions (W x L x H)		280 x 215 x 79 mm (11.0" x 8.5" x 3.1")	280 x 215 x 86.5 mm (11.0" x 8.5" x 3.4")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 117 mm (10.2" x 8.5" x 4.6")
Weight		4.9 kg (10.80 lb)	5.0 kg (11.02 lb)	4.6 kg (10.14 lb)	5.1 kg (11.24 lb)
Mounting		Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail
Operating Temperature		-25°C to 55°C (-13°F to 140°F)	-25°C to 55°C (-13°F to 140°F)	-25°C to 60°C (-13°F to 140°F)	-25°C to 60°C (-13°F to 140°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

ECX-2000 PEG

ECX-2400/2400F PEG	ECX-2300/2300F PEG	ECX-2200/2200F PEG	ECX-2100/2100F PEG
			
Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)
Intel® W480E	Intel® W480E	Intel® W480E	Intel® W480E
AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz
Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)
Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
1	1	1	1
NA	NA	NA	NA
1	1	1	1
2	2	2	2
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
6 (External)	6 (External)	6 (External)	6 (External)
1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
6 (4 w/PoE*)	2	6 (4 w/PoE*)	2
4 (IEEE 802.3at)	NA	4 (IEEE 802.3at)	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	16 GPIO	NA	16 GPIO
32 (16 DI, 16 DO)	NA	32 (16 DI, 16 DO)	NA
4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)
4	4	2	2
NA	NA	NA	NA
2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
1 (External)	1 (External)	1 (External)	1 (External)
2	2	2	2
3 (Nano SIM, External)	3 (Nano SIM, External)	3 (Nano SIM, External)	3 (Nano SIM, External)
- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230
1 PCIe x16, 1 PCIe x4	1 PCIe x16, 1 PCIe x4	1 PCIe x16	1 PCIe x16
NA	NA	NA	NA
DC-in 12V to 50V	DC-in 12V to 50V	DC-in 12V to 50V	DC-in 12V to 50V
Terminal Block	Terminal Block	Terminal Block	Terminal Block
80V	80V	80V	80V
Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)
Yes	Yes	Yes	Yes
260 x 240 x 104 mm (10.2" x 9.4" x 4.1")	260 x 240 x 104 mm (10.2" x 9.4" x 4.1")	260 x 240 x 79 mm (10.2" x 9.4" x 3.1")	260 x 240 x 79 mm (10.2" x 9.4" x 3.1")
5.5 kg (12.13 lb)	5.5 kg (12.13 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)
Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1
High-performance
Fanless Systems

2
GPU Computing
Systems

3
10GigE Embedded
Systems

4
Expandable
Fanless Systems

5
Ultra-Compact
Fanless Systems

6
Rackmount
Systems

7
Industrial Multi-
Touch Computers/
Displays

8
Industrial
Motherboards

9
Embedded
Peripherals

GPU Computing Systems

Series		ECX-1000 PEG			
Model No.		ECX-1400 PEG	ECX-1300 PEG	ECX-1200 PEG	ECX-1100 PEG
Product Image					
System	CPU	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
	Chipset	Intel® C246	Intel® C246	Intel® C246	Intel® C246
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
	Memory Capacity	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
	Graphics	- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)
	Ethernet	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	1	1	1	1
	DVI-I	NA	NA	NA	NA
	DVI-D	1	1	1	1
	DisplayPort	2	2	2	2
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)	6 (External)
	USB 2.0	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
	GigE LAN	6 (4 w/PoE*)	2	6 (4 w/PoE*)	2
	PoE LAN	4 (IEEE 802.3at)	NA	4 (IEEE 802.3at)	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	16 GPIO	NA	16 GPIO
	Isolated DIO	32 (16 DI, 16 DO)	NA	32 (16 DI, 16 DO)	NA
	Others	4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)
Storage	SATA III	4	4	2	2
	CFast	1 (External)	1 (External)	1 (External)	1 (External)
	mSATA	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
	M.2	1 Key B 2280	1 Key B 2280	1 Key B 2280, 1 Key M 2280	1 Key B 2280, 1 Key M 2280
	Micro SD	NA	NA	NA	NA
Expansion	Mini PCIe	2	2	2	2
	SIM Card	3 (External)	3 (External)	3 (External)	3 (External)
	M.2	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
	PCI/PCIe	1 PCIe x16, 1 PCIe x4	1 PCIe x16, 1 PCIe x4	1 PCIe x16	1 PCIe x16
	SUMIT A, B	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)
Power	Input	DC-in 12V to 36V	DC-in 12V to 36V	DC-in 12V to 36V	DC-in 12V to 36V
	Connector	Terminal Block	Terminal Block	Terminal Block	Terminal Block
	Surge Protection	80V	80V	80V	80V
	Ignition Control	Yes	Yes	Yes	Yes
	Remote Switch	Yes	Yes	Yes	Yes
Dimensions (W x L x H)		260 x 215 x 104 mm (10.2" x 8.5" x 4.1")	260 x 215 x 104 mm (10.2" x 8.5" x 4.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")
Weight		5.5 kg (12.13 lb)	5.5 kg (12.13 lb)	4.8 kg (10.58 lb)	4.8 kg (10.58 lb)
Mounting		Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
Operating Temperature		-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010
Shock		IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

GPC-1000	RCX-1500 PEG			
GPC-1000	RCX-1540R PEG	RCX-1540 PEG	RCX-1520R PEG	RCX-1520 PEG
				
Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
Intel® C246	Intel® C246	Intel® C246	Intel® C246	Intel® C246
AMI	AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
Max 64GB, 2 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM
- Intel® UHD 630 - PEG 1 (By request) - PEG 2 (By request)	- Intel® UHD 630 - PEG 1 (By request) - PEG 2 (By request)	- Intel® UHD 630 - PEG 1 (By request) - PEG 2 (By request)	- Intel® UHD 630 - PEG 1 (By request) - PEG 2 (By request)	- Intel® UHD 630 - PEG 1 (By request) - PEG 2 (By request)
Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
NA	NA	NA	NA	NA
NA	1	1	1	1
1	NA	NA	NA	NA
2	2	2	2	2
4 RS-232/422/485	3 RS-232/422/485	3 RS-232/422/485	3 RS-232/422/485	3 RS-232/422/485
4 (External)	6 (External)	6 (External)	6 (External)	6 (External)
NA	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
4	2	2	2	2
NA	NA	NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	NA	NA	NA	NA
16 (8 DI, 8 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
NA	4 SSD/HDD Tray (External)	NA	4 SSD/HDD Tray (External)	NA
2	4	4	4	4
NA	NA	NA	NA	NA
1 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
NA	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
NA	NA	NA	NA	NA
2	2	2	2	2
1 (Internal)	2 (External)	2 (External)	2 (External)	2 (External)
NA	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
2 PCIe x8, 1 PCIe x4, 1 PCIe x1	2 PCIe x8, 1 PCIe x4, 1 PCIe x1	2 PCIe x8, 1 PCIe x4, 1 PCIe x1	2 PCIe x8	2 PCIe x8
2 (Optional)	NA	NA	NA	NA
DC-in 9V to 55V	- DC-in 6V to 36V - 12V PEG Power	- DC-in 6V to 36V - 12V PEG Power	- DC-in 6V to 36V - 12V PEG Power	- DC-in 6V to 36V - 12V PEG Power
Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block
NA	80V	80V	80V	80V
NA	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes
243 x 369 x 209 mm (9.6" x 14.5" x 8.2")	198 x 350 x 210 mm (7.8" x 13.8" x 8.3")	198 x 350 x 210 mm (7.8" x 13.8" x 8.3")	198 x 350 x 210 mm (7.8" x 13.8" x 8.3")	198 x 350 x 210 mm (7.8" x 13.8" x 8.3")
9.0 kg (19.8 lb)	7.1 kg (15.62 lb)	6.9 kg (15.19 lb)	7.1 kg (15.62 lb)	6.9 kg (15.19 lb)
Wallmount	Wallmount	Wallmount	Wallmount	Wallmount
-25°C to 60°C (-6°F to 140°F)	-25°C to 45°C (-13°F to 113°F)	-25°C to 45°C (-13°F to 113°F)	-25°C to 45°C (-13°F to 113°F)	-25°C to 45°C (-13°F to 113°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010
IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1

High-performance
Fanless Systems

2

GPU Computing
Systems

3

10GigE Embedded
Systems

4

Expandable
Fanless Systems

5

Ultra-Compact
Fanless Systems

6

Rackmount
Systems

7

Industrial Multi-
Touch Computers/
Displays

8

Industrial
Motherboards

9

Embedded
Peripherals

GPU Computing Systems

Series		RCX-1000 PEG		
Model No.		RCX-1430FR PEG	RCX-1430F PEG	RCX-1421FR PEG
Product Image				
System	CPU	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
	Chipset	Intel® C246	Intel® C246	Intel® C246
	BIOS	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
	Memory Capacity	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM
	Graphics	- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)
	Ethernet	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	NA	NA	NA
	DVI-I	1	1	1
	DVI-D	NA	NA	NA
	DisplayPort	2	2	2
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)
	USB 2.0	1 (Internal)	1 (Internal)	1 (Internal)
	GigE LAN	2	2	2
	PoE LAN	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA
	Isolated DIO	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
	Others	4 SSD/HDD Tray (External)	NA	4 SSD/HDD Tray (External)
Storage	SATA III	4	4	4
	CFast	NA	NA	NA
	mSATA	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
	M.2	1 Key M 2280	1 Key M 2280	1 Key M 2280
	Micro SD	NA	NA	NA
Expansion	Mini PCIe	2	2	2
	SIM Card	2 (External)	2 (External)	2 (External)
	M.2	1 Key E 2230	1 Key E 2230	1 Key E 2230
	PCI/PCIe	1 PCIe x16, 1 PCIe x4, 1 PCIe x1	1 PCIe x16, 1 PCIe x4, 1 PCIe x1	1 PCIe x16, 1 PCIe x4, PCI
	SUMIT A, B	NA	NA	NA
Power	Input	- DC-in 24V to 36V - DC-in 12V (Optional)	- DC-in 24V to 36V - DC-in 12V (Optional)	- DC-in 24V to 36V - DC-in 12V (Optional)
	Connector	Terminal Block	Terminal Block	Terminal Block
	Surge Protection	80V	80V	80V
	Ignition Control	Yes	Yes	Yes
	Remote Switch	Yes	Yes	Yes
Dimensions (W x L x H)		172 x 330 x 210 mm (6.8" x 13" x 8.3")	172 x 330 x 210 mm (6.8" x 13" x 8.3")	172 x 330 x 210 mm (6.8" x 13" x 8.3")
Weight		5.6 kg (12.37 lb)	5.4 kg (11.87 lb)	5.6 kg (12.37 lb)
Mounting		Wallmount	Wallmount	Wallmount
Operating Temperature		-25°C to 45°C (-13°F to 113°F)	-25°C to 45°C (-13°F to 113°F)	-25°C to 45°C (-13°F to 113°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010
Shock		IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

RCX-1421F PEG	RCX-1412FR PEG	RCX-1412F PEG
		
Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
Intel® C246	Intel® C246	Intel® C246
AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM
- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)
Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
NA	NA	NA
1	1	1
NA	NA	NA
2	2	2
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
6 (External)	6 (External)	6 (External)
1 (Internal)	1 (Internal)	1 (Internal)
2	2	2
NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	NA	NA
32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
NA	4 SSD/HDD Tray (External)	NA
4	4	4
NA	NA	NA
2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
1 Key M 2280	1 Key M 2280	1 Key M 2280
NA	NA	NA
2	2	2
2 (External)	2 (External)	2 (External)
1 Key E 2230	1 Key E 2230	1 Key E 2230
1 PCIe x16, 1 PCIe x4, PCI	1 PCIe x16, 2 PCI	1 PCIe x16, 2 PCI
NA	NA	NA
- DC-in 24V to 36V - DC-in 12V (Optional)	- DC-in 24V to 36V - DC-in 12V (Optional)	- DC-in 24V to 36V - DC-in 12V (Optional)
Terminal Block	Terminal Block	Terminal Block
80V	80V	80V
Yes	Yes	Yes
Yes	Yes	Yes
172 x 330 x 210 mm (6.8" x 13" x 8.3")	172 x 330 x 210 mm (6.8" x 13" x 8.3")	172 x 330 x 210 mm (6.8" x 13" x 8.3")
5.4 kg (11.87 lb)	5.6 kg (12.37 lb)	5.4 kg (11.87 lb)
Wallmount	Wallmount	Wallmount
-25°C to 45°C (-13°F to 113°F)	-25°C to 45°C (-13°F to 113°F)	-25°C to 45°C (-13°F to 113°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010
IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010
CE, FCC, EN50155, N50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1
High-performance
Fanless Systems

2
GPU Computing
Systems

3
10GigE Embedded
Systems

4
Expandable
Fanless Systems

5
Ultra-Compact
Fanless Systems

6
Rackmount
Systems

7
Industrial Multi-
Touch Computers/
Displays

8
Industrial
Motherboards

9
Embedded
Peripherals

10GigE Embedded Systems

Series		10GigE LAN			
Model No.		ECX-2055R	ECX-2055	ECX-1055R	ECX-1055
Product Image					
System	CPU	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
	Chipset	Intel® W480E	Intel® W480E	Intel® C246	Intel® C246
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
	Memory Capacity	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
	Graphics	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
	10G Ethernet	Intel® X550-AT2	Intel® X550-AT2	Intel® X550-AT2	Intel® X550-AT2
	GigE Ethernet	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	NA	NA	NA	NA
	DVI-I	1	1	1	1
	DVI-D	1	1	1	1
	DisplayPort	1	1	1	1
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)	6 (External)
	USB 2.0	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
	10GigE LAN	2 (RJ45, External)	2 (RJ45, External)	2 (RJ45, External)	2 (RJ45, External)
	GigE LAN	6 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)
	PoE LAN	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)
	SFP+	NA	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA
	Isolated DIO	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)
Storage	Others	2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)	NA
	SATA III	2	2	2	2
	SATA II	NA	NA	NA	NA
	CFast	NA	NA	1	1
	mSATA	1 (Mini PCIe)	1 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
	M.2	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
	Micro SD	1	1	NA	NA
Expansion	Mini PCIe	1	1	2	2
	SIM Card	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (External)	2 (External)
	M.2	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	1 Key E 2230	1 Key E 2230
Power	Input	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 6V to 36V	DC-in 6V to 36V
	Connector	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN
	Surge Protection	80V	80V	80V	80V
	Ignition Control	Yes (SW IGN)	Yes (SW IGN)	Yes	Yes
	Remote Switch	Yes	Yes	Yes	Yes
Dimensions (W x L x H)		260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")
Weight		3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)
Mounting		Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
Operating Temperature		-40°C to 55°C, with Internal Fan (-40°F to 131°F)	-40°C to 55°C, with Internal Fan (-40°F to 131°F)	-40°C to 55°C, with Internal Fan (-40°F to 131°F)	-40°C to 55°C, with Internal Fan (-40°F to 131°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

10G SFP+			
ECX-2071R	ECX-2071	ECX-1071R	ECX-1071
			
Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
Intel® W480E	Intel® W480E	Intel® C246	Intel® C246
AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
Intel® X710-BM2	Intel® X710-BM2	Intel® X710-BM2	Intel® X710-BM2
Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
NA	NA	NA	NA
1	1	1	1
1	1	1	1
1	1	1	1
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
6 (External)	6 (External)	6 (External)	6 (External)
1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
2 (SFP+, External)	2 (SFP+, External)	2 (SFP+, External)	2 (SFP+, External)
6 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)
4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)
2	2	2	2
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	NA	NA	NA
16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)
2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)	NA
2	2	2	2
NA	NA	NA	NA
NA	NA	1	1
1 (Mini PCIe)	1 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
1	1	NA	NA
1	1	2	2
2 (Nano SIM, External)	2 (Nano SIM, External)	2 (External)	2 (External)
- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	1 Key E 2230	1 Key E 2230
DC-in 9V to 50V	DC-in 9V to 50V	DC-in 6V to 36V	DC-in 6V to 36V
Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN
80V	80V	80V	80V
Yes (SW IGN)	Yes (SW IGN)	Yes	Yes
Yes	Yes	Yes	Yes
260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")
3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)
Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
-40°C to 55°C (-40°F to 131°F)	-40°C to 55°C (-40°F to 131°F)	-40°C to 55°C (-40°F to 131°F)	-40°C to 55°C (-40°F to 131°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1
High-performance
Fanless Systems

2
GPU Computing
Systems

3
10GigE Embedded
Systems

4
Expandable
Fanless Systems

5
Ultra-Compact
Fanless Systems

6
Rackmount
Systems

7
Industrial Multi-
Touch Computers/
Displays

8
Industrial
Motherboards

9
Embedded
Peripherals

Expandable Fanless Systems

Series		ECX-2200			
Model No.		ECX-2210MX/2210MXF	ECX-2210/2210F	ECX-2201MX/2201MXF	ECX-2201/2201F
Product Image					
System	CPU	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)
	Chipset	Intel® W480E	Intel® W480E	Intel® W480E	Intel® W480E
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz
	Memory Capacity	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
	Graphics	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
	Ethernet	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210, Intel® I350
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	1	1	1	1
	DVI-I	NA	NA	NA	NA
	DVI-D	1	1	1	1
	HDMI	NA	NA	NA	NA
	LVDS	NA	NA	NA	NA
	DisplayPort	2	2	2	2
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)	6 (External)
	USB 2.0	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
	GigE LAN	6 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)
	PoE LAN	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)
	M12	4 (X-coded, PoE*)	NA	4 (X-coded, PoE*)	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA
	Isolated DIO	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
	Others	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)
Storage	SATA III	2	2	2	2
	SATA II	NA	NA	NA	NA
	CFast	NA	NA	NA	NA
	mSATA	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
	M.2	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
	Micro SD	1 (External)	1 (External)	1 (External)	1 (External)
Expansion	Mini PCIe	2	2	2	2
	PCIe	1 PCIe x16	1 PCIe x16	NA	NA
	PCI	NA	NA	1 PCI	1 PCI
	M.2	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230
	SIM Card	3 (Nano SIM, External)	3 (Nano SIM, External)	3 (Nano SIM, External)	3 (Nano SIM, External)
	SUMIT	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)
	Input	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V
Power	Connector	Terminal Block	Terminal Block	Terminal Block	Terminal Block
	Surge Protection	80V	80V	80V	80V
	Ignition Control	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)
	Remote Switch	Yes	Yes	Yes	Yes
Dimensions (W x L x H)		260 x 240 x 79 mm (10.2" x 9.45" x 3.1")	260 x 240 x 79 mm (10.2" x 9.45" x 3.1")	260 x 240 x 79 mm (10.2" x 9.45" x 3.1")	260 x 240 x 79 mm (10.2" x 9.45" x 3.1")
Weight		4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)
Mounting		Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
Operating Temperature		-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

ECX-2100		ECX-1200		
ECX-2110/2110F	ECX-2101/2101F	ECX-1210M	ECX-1210	ECX-1201M
				
Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
Intel® W480E	Intel® W480E	Intel® C246	Intel® C246	Intel® C246
AMI	AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210, Intel® I350
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
1	1	1	1	1
NA	NA	NA	NA	NA
1	1	1	1	1
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
2	2	2	2	2
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
6 (External)	6 (External)	6 (External)	6 (External)	6 (External)
1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
2	2	6 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)
NA	NA	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)
NA	NA	4 (PoE*)	NA	4 (PoE*)
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
16 GPIO	16 GPIO	NA	NA	NA
NA	NA	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)
2	2	2	2	2
NA	NA	NA	NA	NA
NA	NA	1 (External)	1 (External)	1 (External)
2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
1 Key M 2280	1 Key M 2280	1 Key B 2280, 1 Key M 2280	1 Key B 2280, 1 Key M 2280	1 Key B 2280, 1 Key M 2280
1 (External)	1 (External)	NA	NA	NA
2	2	2	2	2
1 PCIe x16	NA	1 PCIe x16	1 PCIe x16	NA
NA	1 PCI	NA	NA	1 PCI
- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
3 (Nano SIM, External)	3 (Nano SIM, External)	3 (External)	3 (External)	3 (External)
2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)
DC-in 9V to 50V	DC-in 9V to 50V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V
Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block
80V	80V	80V	80V	80V
Yes (SW IGN)	Yes (SW IGN)	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes
260 x 240 x 79 mm (10.2" x 9.45" x 3.1")	260 x 240 x 79 mm (10.2" x 9.45" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")
4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)
Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1
High-performance
Fanless Systems

2
GPU Computing
Systems

3
10GigE Embedded
Systems

4
Expandable
Fanless Systems

5
Ultra-Compact
Fanless Systems

6
Rackmount
Systems

7
Industrial Multi-
Touch Computers/
Displays

8
Industrial
Motherboards

9
Embedded
Peripherals

Expandable Fanless Systems

Series		ECX-1200	ECX-1100		ECX-1400
Model No.		ECX-1201	ECX-1110	ECX-1101	ECX-1420
Product Image					
System	CPU	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
	Chipset	Intel® C246	Intel® C246	Intel® C246	Intel® C246
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
	Memory Capacity	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
	Graphics	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
	Ethernet	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210, Intel® I350
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	1	1	1	1
	DVI-I	NA	NA	NA	NA
	DVI-D	1	1	1	1
	HDMI	NA	NA	NA	NA
	LVDS	NA	NA	NA	NA
	DisplayPort	2	2	2	2
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)	6 (External)
	USB 2.0	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
	GigE LAN	6 (4 w/PoE*)	2	2	6 (4 w/PoE*)
	PoE LAN	4 (IEEE 802.3at)	NA	NA	4 (IEEE 802.3at)
	M12	NA	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	16 GPIO	16 GPIO	NA
	Isolated DIO	32 (16 DI, 16 DO)	NA	NA	32 (16 DI, 16 DO)
	Others	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)
Storage	SATA III	2	2	2	4
	SATA II	NA	NA	NA	NA
	CFast	1 (External)	1 (External)	1 (External)	1 (External)
	mSATA	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
	M.2	1 Key B 2280, 1 Key M 2280	1 Key B 2280, 1 Key M 2280	1 Key B 2280, 1 Key M 2280	1 Key B 2280
	Micro SD	NA	NA	NA	NA
Expansion	Mini PCIe	2	2	2	2
	PCIe	NA	1 PCIe x16	NA	1 PCIe x16, PCIe x4
	PCI	1 PCI	NA	1 PCI	NA
	M.2	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
	SIM Card	3 (External)	3 (External)	3 (External)	3 (External)
	SUMIT	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)
Power	Input	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V
	Connector	Terminal Block	Terminal Block	Terminal Block	Terminal Block
	Surge Protection	80V	80V	80V	80V
	Ignition Control	Yes	Yes	Yes	Yes
	Remote Switch	Yes	Yes	Yes	Yes
Dimensions (W x L x H)		260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 104 mm (10.2" x 8.5" x 4.1")
Weight		4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	5.5 kg (12.13 lb)
Mounting		Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail
Operating Temperature		-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

ECX-1300				
ECX-1411	ECX-1402	ECX-1320	ECX-1311	ECX-1302
				
Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
Intel® C246	Intel® C246	Intel® C246	Intel® C246	Intel® C246
AMI	AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
1	1	1	1	1
NA	NA	NA	NA	NA
1	1	1	1	1
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
2	2	2	2	2
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
6 (External)	6 (External)	6 (External)	6 (External)	6 (External)
1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
6 (4 w/PoE*)	6 (4 w/PoE*)	2	2	2
4 (IEEE 802.3at)	4 (IEEE 802.3at)	NA	NA	NA
NA	NA	NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	NA	16 GPIO	16 GPIO	16 GPIO
32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	NA	NA	NA
4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)
4	4	4	4	4
NA	NA	NA	NA	NA
1 (External)	1 (External)	1 (External)	1 (External)	1 (External)
2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
1 Key B 2280	1 Key B 2280	1 Key B 2280	1 Key B 2280	1 Key B 2280
NA	NA	NA	NA	NA
2	2	2	2	2
1 PCIe x16	NA	1 PCIe x16, 1 PCIe x4	1 PCIe x16	NA
1 PCI	2 PCI	NA	1 PCI	2 PCI
1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
3 (External)	3 (External)	3 (External)	3 (External)	3 (External)
2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)
DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V
Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block
80V	80V	80V	80V	80V
Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes
260 x 215 x 104 mm (10.2" x 8.5" x 4.1")	260 x 215 x 104 mm (10.2" x 8.5" x 4.1")	260 x 215 x 104 mm (10.2" x 8.5" x 4.1")	260 x 215 x 104 mm (10.2" x 8.5" x 4.1")	260 x 215 x 104 mm (10.2" x 8.5" x 4.1")
5.5 kg (12.13 lb)	5.5 kg (12.13 lb)	5.5 kg (12.13 lb)	5.5 kg (12.13 lb)	5.5 kg (12.13 lb)
Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail
-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1
High-performance
Fanless Systems

2
GPU Computing
Systems

3
10GigE Embedded
Systems

4
Expandable
Fanless Systems

5
Ultra-Compact
Fanless Systems

6
Rackmount
Systems

7
Industrial Multi-
Touch Computers/
Displays

8
Industrial
Motherboards

9
Embedded
Peripherals

Expandable Fanless Systems

Series		RCX-1000F			
Model No.		RCX-1430FR	RCX-1430F	RCX-1421FR	RCX-1421F
Product Image					
System	CPU	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
	Chipset	Intel® C246	Intel® C246	Intel® C246	Intel® C246
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
	Memory Capacity	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM
	Graphics	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
	Ethernet	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	NA	NA	NA	NA
	DVI-I	1	1	1	1
	DVI-D	NA	NA	NA	NA
	HDMI	NA	NA	NA	NA
	LVDS	NA	NA	NA	NA
	DisplayPort	2	2	2	2
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)	6 (External)
	USB 2.0	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
	GigE LAN	2	2	2	2
	PoE LAN	NA	NA	NA	NA
	M12	NA	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA
	Isolated DIO	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
	Others	4 SSD/HDD Tray (External)	NA	4 SSD/HDD Tray (External)	NA
Storage	SATA III	4	4	4	4
	SATA II	NA	NA	NA	NA
	CFast	NA	NA	NA	NA
	mSATA	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
	M.2	1 Key M 2280/2260/2242	1 Key M 2280/2260/2242	1 Key M 2280/2260/2242	1 Key M 2280/2260/2242
	Micro SD	NA	NA	NA	NA
Expansion	Mini PCIe	2	2	2	2
	PCIe	1 PCIe x16, 1 PCIe x4, 1 PCIe x1	1 PCIe x16, 1 PCIe x4, 1 PCIe x1	1 PCIe x16, 1 PCIe x4	1 PCIe x16, 1 PCIe x4
	PCI	NA	NA	1 PCI	1 PCI
	M.2	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
	SIM Card	2 (External)	2 (External)	2 (External)	2 (External)
	SUMIT	NA	NA	NA	NA
	Input	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V
Power	Connector	Terminal Block	Terminal Block	Terminal Block	Terminal Block
	Surge Protection	80V	80V	80V	80V
	Ignition Control	Yes	Yes	Yes	Yes
	Remote Switch	Yes	Yes	Yes	Yes
Dimensions (W x L x H)		172 x 330 x 210 mm (6.8" x 13" x 8.3")	172 x 330 x 210 mm (6.8" x 13" x 8.3")	172 x 330 x 210 mm (6.8" x 13" x 8.3")	172 x 330 x 210 mm (6.8" x 13" x 8.3")
Weight		5.3 kg (11.7 lb)	4.9 kg (10.8 lb)	5.3 kg (11.7 lb)	4.9 kg (10.8 lb)
Mounting		Wallmount	Wallmount	Wallmount	Wallmount
Operating Temperature		-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

		RCX-1000	
RCX-1412FR	RCX-1412F	RCX-1440R	RCX-1440
			
Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
Intel® C246	Intel® C246	Intel® C246	Intel® C246
AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM
Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
NA	NA	NA	NA
1	1	1	1
NA	NA	NA	NA
NA	NA	NA	NA
NA	NA	NA	NA
2	2	2	2
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
6 (External)	6 (External)	6 (External)	6 (External)
1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
2	2	2	2
NA	NA	NA	NA
NA	NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	NA	NA	NA
32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
4 SSD/HDD Tray (External)	NA	4 SSD/HDD Tray (External)	NA
4	4	4	4
NA	NA	NA	NA
NA	NA	NA	NA
2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
1 Key M 2280/2260/2242	1 Key M 2280/2260/2242	1 Key M 2280/2260/2242	1 Key M 2280/2260/2242
NA	NA	NA	NA
2	2	2	2
1 PCIe x16	1 PCIe x16	1 PCIe x8, 3 PCIe x4	1 PCIe x8, 3 PCIe x4
2 PCI	2 PCI	NA	NA
1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
2 (External)	2 (External)	2 (External)	2 (External)
NA	NA	NA	NA
DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V
Terminal Block	Terminal Block	Terminal Block	Terminal Block
80V	80V	80V	80V
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
172 x 330 x 210 mm (6.8" x 13" x 8.3")	172 x 330 x 210 mm (6.8" x 13" x 8.3")	172 x 250 x 210 mm (6.8" x 9.8" x 8.3")	172 x 250 x 210 mm (6.8" x 9.8" x 8.3")
5.3 kg (11.7 lb)	4.9 kg (10.8 lb)	5 kg (11 lb)	4.6 kg (10.1 lb)
Wallmount	Wallmount	Wallmount	Wallmount
-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1

High-performance
Fanless Systems

2

GPU Computing
Systems

3

10GigE Embedded
Systems

4

Expandable
Fanless Systems

5

Ultra-Compact
Fanless Systems

6

Rackmount
Systems

7

Industrial Multi-
Touch Computers/
Displays

8

Industrial
Motherboards

9

Embedded
Peripherals

Expandable Fanless Systems

Series		RCX-1000			
Model No.		RCX-1422R	RCX-1422	RCX-1404R	RCX-1404
Product Image					
System	CPU	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
	Chipset	Intel® C246	Intel® C246	Intel® C246	Intel® C246
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
	Memory Capacity	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM
	Graphics	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
	Ethernet	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	NA	NA	NA	NA
	DVI-I	1	1	1	1
	DVI-D	NA	NA	NA	NA
	HDMI	NA	NA	NA	NA
	LVDS	NA	NA	NA	NA
	DisplayPort	2	2	2	2
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)	6 (External)
	USB 2.0	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
	GigE LAN	2	2	2	2
	PoE LAN	NA	NA	NA	NA
	M12	NA	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA
	Isolated DIO	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
	Others	4 SSD/HDD Tray (External)	NA	4 SSD/HDD Tray (External)	NA
Storage	SATA III	4	4	4	4
	SATA II	NA	NA	NA	NA
	CFast	NA	NA	NA	NA
	mSATA	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
	M.2	1 Key M 2280/2260/2242	1 Key M 2280/2260/2242	1 Key M 2280/2260/2242	1 Key M 2280/2260/2242
	Micro SD	NA	NA	NA	NA
Expansion	Mini PCIe	2	2	2	2
	PCIe	1 PCIe x16, 1 PCIe x4	1 PCIe x16, 1 PCIe x4	NA	NA
	PCI	2 PCI	2 PCI	4 PCI	4 PCI
	M.2	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
	SIM Card	2 (External)	2 (External)	2 (External)	2 (External)
	SUMIT	NA	NA	NA	NA
Power	Input	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V
	Connector	Terminal Block	Terminal Block	Terminal Block	Terminal Block
	Surge Protection	80V	80V	80V	80V
	Ignition Control	Yes	Yes	Yes	Yes
	Remote Switch	Yes	Yes	Yes	Yes
Dimensions (W x L x H)		172 x 250 x 210 mm (6.8" x 9.8" x 8.3")	172 x 250 x 210 mm (6.8" x 9.8" x 8.3")	172 x 250 x 210 mm (6.8" x 9.8" x 8.3")	172 x 250 x 210 mm (6.8" x 9.8" x 8.3")
Weight		5 kg (11 lb)	4.6 kg (10.1 lb)	5 kg (11 lb)	4.6 kg (10.1 lb)
Mounting		Wallmount	Wallmount	Wallmount	Wallmount
Operating Temperature		-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

				SEC-2000
RCX-1220A	RCX-1220	RCX-1211	SEC-2220	SEC-2211
				
Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel Atom® x7-E3950 (APL-I)	Intel Atom® x7-E3950 (APL-I)
Intel® C246	Intel® C246	Intel® C246	Intel® SoC	Intel® SoC
AMI	AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	204-pin SO-DIMM, DDR3L 1866MHz	204-pin SO-DIMM, DDR3L 1866MHz
Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 8GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM
Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® HD 505	Intel® HD 505
Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I210	Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
NA	NA	NA	1	1
1	1	1	NA	NA
NA	NA	NA	NA	NA
NA	NA	NA	1	1
NA	NA	NA	NA	NA
2	2	2	NA	NA
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485 (2 w/Isolated)	4 RS-232/422/485 (2 w/Isolated)
6 (External)	6 (External)	6 (External)	2 (External)	2 (External)
1 (Internal)	1 (Internal)	1 (Internal)	4 (2 External, 2 Internal)	4 (2 External, 2 Internal)
2	2	2	2 (IEEE 1588)	2 (IEEE 1588)
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	NA	NA	16 GPIO	16 GPIO
32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	NA	NA
NA	NA	NA	NA	NA
4	4	4	1	1
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)
1 Key M 2280/2260/2242	1 Key M 2280/2260/2242	1 Key M 2280/2260/2242	NA	NA
NA	NA	NA	NA	NA
2	2	2	2	2
2 PCIe x8	1 PCIe x16, 1 PCIe x4	1 PCIe x16	2 PCIe x1	1 PCIe x1
NA	NA	1 PCI	NA	1 PCI
1 Key E 2230	1 Key E 2230	1 Key E 2230	NA	NA
2 (External)	2 (External)	2 (External)	1 (Internal)	1 (Internal)
NA	NA	NA	NA	NA
DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 12V	DC-in 12V
Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block
80V	80V	80V	NA	NA
Yes	Yes	Yes	NA	NA
Yes	Yes	Yes	Yes	Yes
131 x 250 x 210 mm (5.2" x 9.8" x 8.3")	131 x 250 x 210 mm (5.2" x 9.8" x 8.3")	131 x 250 x 210 mm (5.2" x 9.8" x 8.3")	125 x 210 x 160 mm (4.9" x 8.3" x 6.3")	125 x 210 x 160 mm (4.9" x 8.3" x 6.3")
4.3 kg (9.5 lb)	4.3 kg (9.5 lb)	4.3 kg (9.5 lb)	3.5 kg (7.7 lb)	3.5 kg (7.7 lb)
Wallmount	Wallmount	Wallmount	Wallmount	Wallmount
-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1

High-performance
Fanless Systems

2

GPU Computing
Systems

3

10GigE Embedded
Systems

4

Expandable
Fanless Systems

5

Ultra-Compact
Fanless Systems

6

Rackmount
Systems

7

Industrial Multi-
Touch Computers/
Displays

8

Industrial
Motherboards

9

Embedded
Peripherals

Ultra-Compact Fanless Systems

Series		SPC-7000		ABP-3000	SPC-5000
Model No.		SPC-7000	SPC-7100	ABP-3000	SPC-5000
Product Image					
System	CPU	Intel® Core™ i7-1185G7E/ i5-1145G7E	Intel® Core™ i7-1185G7E/ i5-1145G7E	Intel® Core™ i7-8665UE/ i3-8145UE	Intel® Core™ i7-8665UE/ i5-8365UE/i3-8145UE/ Celeron® 4305UE
	Chipset	Intel® SoC	Intel® SoC	Intel® SoC	Intel® SoC
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 2400MHz	260-pin SO-DIMM, DDR4 2400MHz
	Memory Capacity	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 32GB, 1 SO-DIMM
	Graphics	Intel® Iris® X® Graphics	Intel® Iris® X® Graphics	Intel® UHD 620	Intel® UHD 620
	Ethernet	Intel® I219LM, Intel® I225	Intel® I219LM, Intel® I225	Intel® I350	Intel® I219LM, Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	NA	NA	NA	NA
	DVI-I	NA	NA	NA	NA
	DVI-D	NA	NA	NA	1
	HDMI	NA	NA	NA	NA
	LVDS	NA	NA	NA	NA
	DisplayPort	2	2	2	1
	eDP	NA	NA	NA	NA
I/O Interface	Serial	2 RS-232/422/485	2 RS-232/422/485	4 RS-232/422/485	2 RS-232/422/485
	USB 3.0/3.1/3.2	2 (External)	2 (External)	4 (External)	4 (External)
	USB 2.0	4 (2 External, 2 Internal)	4 (2 External, 2 Internal)	NA	NA
	GigE LAN	2 (1-port 2.5G)	2 (1-port 2.5G)	4 (2 w/PoE*)	2
	PoE LAN	NA	NA	2 (IEEE 802.3at)	NA
	M12	NA	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA
	Isolated DIO	NA	NA	16 Isolated DIO (8 DI, 8 DO)	NA
	Others	NA	NA	NA	NA
Storage	SATA III	1	1	NA	1
	SATA II	NA	NA	NA	NA
	CFast	NA	NA	NA	NA
	mSATA	NA	NA	NA	1 (Mini PCIe)
Expansion	M.2	1 M.2 Key B 2260/2242	1 M.2 Key B 2260/2242	- 1 Key B 2280 - 1 Key M 2280	NA
	Mini PCIe	NA	NA	1	2
	PCIe	NA	NA	NA	NA
	PCI	NA	NA	NA	NA
	SIM Card	1 (External)	1 (External)	2 (Internal)	1 (Internal)
	M.2	- 1 M.2 Key B 3042/3052 - 1 M.2 Key E Socket 2230	- 1 M.2 Key B 3042/3052 - 1 M.2 Key E Socket 2230	- 1 Key B 3042/3052 - 1 Key E 2230	NA
	SUMIT	2 (Optional)	2 (Optional)	NA	2 (Optional)
Power	Input	DC-in 9V to 55V	DC-in 9V to 55V	DC-in 9V to 50V	DC-in 9V to 48V
	Connector	Terminal Block	Terminal Block	Mini-DIN	Terminal Block
	Surge Protection	NA	NA	NA	NA
	Ignition Control	Yes	Yes	Yes	Yes
	Remote Switch	Yes	Yes	Yes	Yes
Dimensions (W x L x H)		150 x 106 x 44 mm (5.9" x 4.2" x 1.7")	150 x 106 x 57 mm (5.9" x 4.2" x 2.2")	224 x 149 x 33 mm (8.8" x 5.9" x 1.3")	150 x 106 x 44 mm (5.9" x 4.2" x 1.7")
Weight		0.9 kg (2.0 lb)	1.3 kg (2.9 lb)	1.4 kg (3.1 lb)	0.9 kg (2.0 lb)
Mounting		Wallmount, VESA Mount	Wallmount, VESA Mount	Wallmount	Wallmount, VESA Mount
Operating Temperature		-40°C to 65°C (-40°F to 149°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 70°C (-40°F to 158°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

ARS-2000			
SPC-5100	SPC-5200	ARS-2010M	ARS-2010
			
Intel® Core™ i7-8665UE/ i5-8365UE/i3-8145UE/ Celeron® 4305UE	Intel® Core™ i7-8665UE/ i5-8365UE/i3-8145UE/ Celeron® 4305UE	Intel® Core™ i7-7600U/ i7-6600U/i5-6300U/ Celeron® 3955U	Intel® Core™ i7-7600U/ i7-6600U/i5-6300U/ Celeron® 3955U
Intel® SoC	Intel® SoC	Intel® SoC	Intel® SoC
AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2400MHz	260-pin SO-DIMM, DDR4 2400MHz	260-pin SO-DIMM, DDR4 2133MHz	260-pin SO-DIMM, DDR4 2133MHz
Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
Intel® UHD 620	Intel® UHD 620	Intel® HD 620/520	Intel® HD 620/520
Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Windows 8.1, Windows 7, Linux
NA	NA	NA	NA
NA	NA	1	1
1	1	1	1
NA	NA	NA	NA
NA	NA	NA	NA
1	1	NA	NA
NA	NA	NA	NA
2 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485 (1 w/Isolated)	4 RS-232/422/485 (1 w/Isolated)
4 (External)	4 (External)	4 (External)	4 (External)
NA	NA	NA	NA
2	4 (2 w/PoE*)	3 (2 w/PoE*)	3 (2 w/PoE*)
NA	2 (IEEE 802.3at)	2 (IEEE 802.3at)	2 (IEEE 802.3at)
NA	NA	2 (PoE*)	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	NA	NA	NA
NA	16 Isolated DIO (8 DI, 8 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
NA	NA	NA	NA
1	1	2	2
NA	NA	NA	NA
NA	NA	1	1
1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)
NA	NA	NA	NA
2	1	2	2
NA	NA	1 PCIe x4	1 PCIe x4
NA	NA	NA	NA
1 (Internal)	1 (Internal)	1 (External)	1 (External)
NA	NA	NA	NA
2 (Optional)	NA	NA	NA
DC-in 9V to 48V	DC-in 9V to 48V	DC-in 6V to 36V	DC-in 6V to 36V
Terminal Block	Terminal Block	Terminal Block	Terminal Block
NA	NA	80V	80V
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
150 x 106 x 62 mm (5.9" x 4.2" x 2.4")	227 x 106 x 44 mm (9.0" x 4.2" x 1.7")	186 x 147 x 82 mm (7.3" x 5.8" x 3.2")	186 x 147 x 82 mm (7.3" x 5.8" x 3.2")
1.3 kg (2.9 lb)	1.0 kg (2.2 lb)	2.2 kg (4.9 lb)	2.2 kg (4.9 lb)
Wallmount, VESA Mount	Wallmount, VESA Mount	Wallmount, DIN Rail	Wallmount, DIN Rail
-40°C to 85°C (-40°F to 185°F)	-40°C to 70°C (-40°F to 158°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1

High-performance
Fanless Systems

2

GPU Computing
Systems

3

10GigE Embedded
Systems

4

Expandable
Fanless Systems

5

Ultra-Compact
Fanless Systems

6

Rackmount
Systems

7

Industrial Multi-
Touch Computers/
Displays

8

Industrial
Motherboards

9

Embedded
Peripherals

Ultra-Compact Fanless Systems

Series		ARS-2000		
Model No.		ARS-2001M	ARS-2001	ARS-2000ML
Product Image				
System	CPU	Intel® Core™ i7-7600U/i7-6600U/ i5-6300U/Celeron® 3955U	Intel® Core™ i7-7600U/i7-6600U/ i5-6300U/Celeron® 3955U	Intel® Core™ i7-7600U/i7-6600U/ i5-6300U/Celeron® 3955U
	Chipset	Intel® SoC	Intel® SoC	Intel® SoC
	BIOS	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2133MHz	260-pin SO-DIMM, DDR4 2133MHz	260-pin SO-DIMM, DDR4 2133MHz
	Memory Capacity	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
	Graphics	Intel® HD 620/520	Intel® HD 620/520	Intel® HD 620/520
	Ethernet	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Windows 8.1, Windows 7, Linux
Display I/O	VGA	NA	NA	NA
	DVI-I	1	1	1
	DVI-D	1	1	1
	HDMI	NA	NA	NA
	LVDS	NA	NA	NA
	DisplayPort	NA	NA	NA
	eDP	NA	NA	NA
I/O Interface	Serial	4 RS-232/422/485 (1 w/Isolated)	4 RS-232/422/485 (1 w/Isolated)	4 RS-232/422/485 (1 w/Isolated)
	USB 3.0/3.1/3.2	4 (External)	4 (External)	4 (External)
	USB 2.0	NA	NA	NA
	GigE LAN	3 (2 w/PoE*)	3 (2 w/PoE*)	3 (2 w/PoE*)
	PoE LAN	2 (IEEE 802.3at)	2 (IEEE 802.3at)	2 (IEEE 802.3at)
	M12	2 (PoE*)	NA	2 (PoE*)
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	32 GPIO (External)
	Isolated DIO	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	NA
	Others	NA	NA	NA
Storage	SATA III	2	2	2
	SATA II	NA	NA	NA
	CFast	1	1	1
	mSATA	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)
	M.2	NA	NA	NA
Expansion	Mini PCIe	2	2	2
	PCIe	NA	NA	NA
	PCI	1 PCI	1 PCI	NA
	SIM Card	1 (External)	1 (External)	1 (External)
	M.2	NA	NA	NA
	SUMIT	NA	NA	NA
	Input	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V
Power	Connector	Terminal Block	Terminal Block	Terminal Block
	Surge Protection	80V	80V	80V
	Ignition Control	Yes	Yes	Yes
	Remote Switch	Yes	Yes	Yes
Dimensions (W x L x H)		186 x 147 x 82 mm (7.3" x 5.8" x 3.2")	186 x 147 x 82 mm (7.3" x 5.8" x 3.2")	186 x 147 x 54 mm (7.3" x 5.8" x 2.1")
Weight		2.2 kg (4.9 lb)	2.2 kg (4.9 lb)	1.8 kg (4 lb)
Mounting		Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail
Operating Temperature		-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 70°C (-40°F to 158°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

	IP67		PBC-1000
ARS-2000L	RES-3000	RES-1000	PBC-1000
			
Intel® Core™ i7-7600U/i7-6600U/ i5-6300U/Celeron® 3955U	Intel® Core™ i7-8665UE/i5-8365UE/ i3-8145UE/Celeron® 4305UE	Intel® Core™ i7-6600U/i5-6300U/ i3-6100U/Celeron® 3955U	Intel Atom® x6212RE
Intel® SoC	Intel® SoC	Intel® SoC	Intel® SoC
AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2133MHz	260-pin SO-DIMM, DDR4 2400MHz	260-pin SO-DIMM, DDR4 2133MHz	260-pin SO-DIMM, DDR4 3200MHz
Max 64GB, 2 SO-DIMM	Max 32GB, 1 SO-DIMM	Max 16GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM
Intel® HD 620/520	Intel® UHD 620	Intel® HD 520	Intel® UHD Graphics for 10th Gen Intel® Processors
Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Realtek 8119I
Realtek ALC888S-VD	NA	NA	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8659E
Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Linux	Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Linux
NA	NA	NA	NA
1	NA	NA	NA
1	1	1	NA
NA	NA	NA	NA
NA	NA	NA	NA
NA	NA	NA	1
NA	NA	NA	NA
4 RS-232/422/485 (1 w/Isolated)	2 RS-232/422/485	2 RS-232/422/485	- 1 RS-232/422/485 - 1 RS-232
4 (External)	NA	NA	2 (External)
NA	2	2	NA
3 (2 w/PoE*)	2	2	2
2 (IEEE 802.3at)	NA	NA	NA
NA	6 (2 COM, 2 LAN, 1 USB, 1 Power)	6 (2 COM, 2 LAN, 1 USB, 1 Power)	NA
1 Mic-in, 1 Line-out	NA	NA	NA
32 GPIO (External)	NA	NA	NA
NA	NA	NA	NA
NA	NA	NA	NA
2	1	1	NA
NA	NA	NA	NA
1	NA	NA	NA
1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	NA
NA	NA	NA	1 M.2 Key B 2280 (shared)
2	NA	NA	NA
NA	NA	NA	NA
NA	NA	NA	NA
1 (External)	NA	NA	1 (Internal)
NA	NA	NA	- 1 Key E 2230 - 1 Key B 3052 (shared)
NA	NA	NA	NA
DC-in 6V to 36V	DC-in 9V to 48V	DC-in 9V to 36V	DC-in 12V
Terminal Block	M12	M12	Terminal Block
80V	NA	NA	80V
Yes	NA	NA	NA
Yes	NA	NA	NA
186 x 147 x 54 mm (7.3" x 5.8" x 2.1")	250 x 180 x 44 mm (9.8" x 7.1" x 1.7")	250 x 180 x 44 mm (9.8" x 7.1" x 1.7")	126 x 79 x 33 mm (5.0" x 3.1" x 1.3")
1.8 kg (4 lb)	2.3 kg (5.1 lb)	2.3 kg (5.1 lb)	0.7 kg (1.5 lb)
Wallmount, DIN Rail	Wallmount, VESA Mount	Wallmount, VESA Mount	Wallmount, VESA Mount
-25°C to 70°C (-13°F to 158°F)	-30°C to 70°C (-22°F to 158°F)	-30°C to 70°C (-22°F to 158°F)	-40°C to 75°C (-40°F to 167°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1

High-performance
Fanless Systems

2

GPU Computing
Systems

3

10GigE Embedded
Systems

4

Expandable
Fanless Systems

5

Ultra-Compact
Fanless Systems

6

Rackmount
Systems

7

Industrial Multi-
Touch Computers/
Displays

8

Industrial
Motherboards

9

Embedded
Peripherals

Ultra-Compact Fanless Systems

Series		SPC-6000	SPC-4000	
Model No.		SPC-6000	SPC-4600	SPC-4500
Product Image				
System	CPU	Intel Atom® x6425RE	Intel Atom® x7-E3950	Intel Atom® x7-E3950
	Chipset	Intel® SoC	Intel® SoC	Intel® SoC
	BIOS	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 3200MHz	204-pin SO-DIMM, DDR3L 1866MHz	204-pin SO-DIMM, DDR3L 1866MHz
	Memory Capacity	Max 32GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM
	Graphics	Intel® UHD Graphics for 10th Gen Intel® Processors	Intel® HD 505	Intel® HD 505
	Ethernet	Intel® I210, Intel® I225	Intel® I210	Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	NA	NA	NA
	DVI-I	1	1	1
	DVI-D	NA	NA	NA
	HDMI	NA	NA	NA
	LVDS	NA	NA	NA
	DisplayPort	1	1	1
	eDP	NA	NA	NA
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	2 (External)	4 (External)	4 (External)
	USB 2.0	2 (External)	NA	NA
	GigE LAN	- 1 GigE LAN - 1 2.5GigE LAN	2 (2 w/PoE+, IEEE 1588)	2 (IEEE 1588)
	PoE LAN	NA	2 (IEEE 802.3at)	NA
	M12	NA	NA	NA
	Audio	1 Line-out	1 Line-out	1 Line-out
	GPIO	NA	NA	NA
	Isolated DIO	NA	16 (8 DI, 8 DO)	NA
	Others	NA	NA	NA
Storage	SATA III	NA	1	1
	SATA II	NA	NA	NA
	CFast	NA	NA	NA
	mSATA	NA	1 (Mini PCIe)	1 (Mini PCIe)
	M.2	1 Key M 2280	NA	NA
Expansion	Mini PCIe	NA	2	2
	PCIe	NA	NA	NA
	PCI	NA	NA	NA
	SIM Card	1 (External)	1 (External)	1 (External)
	M.2	- 1 Key B 3042/3052 - 1 Key E 2230	NA	NA
	SUMIT	NA	NA	NA
Power	Input	DC-in 12V	DC-in 9V to 36V	DC-in 12V
	Connector	Terminal Block	Terminal Block	Terminal Block
	Surge Protection	80V	NA	NA
	Ignition Control	Yes (SW IGN)	Yes	NA
	Remote Switch	NA	Yes	NA
Dimensions (W x L x H)		106.2 x 150.4 x 66.0 mm (4.2" x 5.9" x 2.6")	106 x 150 x 63 mm (4.2" x 5.9" x 2.5")	106 x 150 x 59 mm (4.2" x 5.9" x 2.3")
Weight		1.4 kg (3.1 lb)	1.2 kg (2.65 lb)	0.9 kg (2.0 lb)
Mounting		Wallmount, DIN Rail	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
Operating Temperature		-40°C to 70°C (-40°F to 157°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 85°C (-40°F to 185°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

SPC-4020A	SPC-4020	SPC-4010	SPC-4010C
			
Intel Atom® x7-E3950	Intel Atom® x7-E3950	Intel Atom® x7-E3950	Intel Atom® x5-E3930
Intel® SoC	Intel® SoC	Intel® SoC	Intel® SoC
AMI	AMI	AMI	AMI
204-pin SO-DIMM, DDR3L 1866MHz	204-pin SO-DIMM, DDR3L 1866MHz	204-pin SO-DIMM, DDR3L 1866MHz	204-pin SO-DIMM, DDR3L 1866MHz
Max 8GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM
Intel® HD 505	Intel® HD 505	Intel® HD 505	Intel® HD 500
Intel® I210	Intel® I210	Intel® I210	Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
1	1	1	1
NA	NA	NA	NA
NA	NA	NA	NA
1 (Lockable)	1 (Lockable)	1 (Lockable)	1 (Lockable)
NA	NA	NA	NA
NA	NA	NA	NA
NA	NA	NA	NA
4 RS-232/422/485 (2 w/Isolated)	4 RS-232/422/485 (2 w/Isolated)	2 RS-232/422/485 (Isolated)	2 RS-232/422/485
2 (External)	2 (External)	2 (External)	2 (External)
2 (External) 2 (Internal)	2 (External) 2 (Internal)	2 (External) 2 (Internal)	2 (External) 2 (Internal)
2 (IEEE 1588)	2 (IEEE 1588)	2 (IEEE 1588)	2 (IEEE 1588)
NA	NA	NA	NA
NA	NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	NA	NA	NA
16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	NA	NA
NA	NA	NA	NA
1	1	1	1
NA	NA	NA	NA
NA	NA	NA	NA
1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)
NA	NA	NA	NA
3	3	2	2
NA	NA	NA	NA
NA	NA	NA	NA
1 (External)	1 (External)	1 (External)	1 (External)
1 (Key B)	1 (Key B)	NA	NA
NA	NA	NA	NA
DC-in 9V to 36V	DC-in 12V	DC-in 12V	DC-in 12V
Terminal Block	Terminal Block	Terminal Block	Terminal Block
NA	NA	NA	NA
NA	NA	NA	NA
Yes	Yes	Yes	Yes
155mm x 111mm x 84mm (6.1" x 4.4" x 3.3")	155mm x 111mm x 68mm (6.1" x 4.4" x 2.7")	155mm x 111mm x 44mm (6.1" x 4.4" x 1.7")	155mm x 111mm x 44mm (6.1" x 4.4" x 1.7")
1.1 kg (2.43 lb)	1.1 kg (2.43 lb)	0.8 kg (1.84 lb)	0.8 kg (1.84 lb)
Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail
-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1
High-performance
Fanless Systems

2
GPU Computing
Systems

3
10GigE Embedded
Systems

4
Expandable
Fanless Systems

5
Ultra-Compact
Fanless Systems

6
Rackmount
Systems

7
Industrial Multi-
Touch Computers/
Displays

8
Industrial
Motherboards

9
Embedded
Peripherals

Ultra-Compact Fanless Systems

Series		RISC		
Model No.		VIG-120M/120	VIG-110M/110	VIG-100M/100
Product Image				
System	CPU	Arm® Cortex®-A7	Arm® Cortex®-A7	Arm® Cortex®-A7
	Memory Type	Onboard DDR3L SDRAM	Onboard DDR3L SDRAM	Onboard DDR3L SDRAM
	Memory Capacity	512MB	512MB	512MB
	Flash Type	NAND Flash	NAND Flash	NAND Flash
	Flash Capacity	512MB	512MB	512MB
	EEPROM	16KB	16KB	16KB
	OS Support	Linux	Linux	Linux
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	2 RS-232/422/485
	USB	1 USB 2.0 (OTG)	1 USB 2.0 (OTG)	1 USB 2.0 (OTG)
	LAN	2 (10/100Mbps)	2 (10/100Mbps)	2 (10/100Mbps)
	M12	2 (Optional)	2 (Optional)	2 (Optional)
	CAN Bus	2	NA	NA
	GPIO	8 GPIO	8 GPIO	NA
Storage	microSD	1 (External)	1 (External)	1 (External)
	eMMC	1 (Optional)	1 (Optional)	1 (Optional)
Expansion	Mini PCIe	1	1	1
	SIM Card	1 (External)	1 (External)	1 (External)
Power	Input	DC-in 6V to 40V	DC-in 6V to 40V	DC-in 6V to 40V
	Connector	Terminal Block	Terminal Block	Terminal Block
Dimensions (W x L x H)		106 x 160 x 50 mm (4.2" x 6.3" x 2.0")	106 x 160 x 50 mm (4.2" x 6.3" x 2.0")	106 x 160 x 50 mm (4.2" x 6.3" x 2.0")
Weight		0.6 kg (1.32 lb)	0.6 kg (1.32 lb)	0.6 kg (1.32 lb)
Mounting		Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail
Operating Temperature		-25°C to 70°C (-13°F to 158°F)	-25°C to 70°C (-13°F to 158°F)	-25°C to 70°C (-13°F to 158°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
Certification		CE, FCC	CE, FCC	CE, FCC

Rackmount Systems

Series		RMS-2000	RMS-1000	
Model No.		RMS-2000	RMS-1000	RMS-1100
Product Image				
System	CPU	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Core™ i7-8665UE	Intel® Core™ i7-8665UE
	Chipset	Intel® C246	Intel® SoC	Intel® SoC
	BIOS	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2400MHz	260-pin SO-DIMM, DDR4 2400MHz
	Memory Capacity	Max 128GB, 4 UDIMM	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM
	Graphics	Intel® UHD 630	Intel® UHD 620	Intel® UHD 620
	Ethernet	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	1	NA	NA
	DVI-I	NA	NA	NA
	DVI-D	NA	1	1
	HDMI	1	NA	NA
	DisplayPort	1	1	1
I/O Interface	Serial	1 RS-232/422/485	2 RS-232/422/485	2 RS-232/422/485
	USB 3.0/3.1/3.2	4 (External)	4 (External)	4 (External)
	USB 2.0	2 (External)	NA	NA
	GigE LAN	4	8 (6 X-coded M12)	8 (6 X-coded M12)
	PoE LAN	NA	NA	NA
	M12	NA	6 (X-coded)	6 (X-coded)
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA
	Isolated DIO	NA	NA	NA
	Others	8 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)
Storage	SATA III	8	2	2
	SATA II	NA	NA	NA
	CFast	NA	NA	NA
	mSATA	NA	1 (Mini PCIe)	1 (Mini PCIe)
	M.2	NA	NA	NA
Expansion	Mini PCIe	NA	2	2
	PCIe	NA	NA	NA
	SIM Card	NA	1 (Internal)	1 (Internal)
	M.2	1 Key M 2280	NA	NA
Power	Input	AC-in 115V to 230V	DC-in 9V to 48V	DC-in 16V to 160V (w/4kV Isolation)
	Connector	3 Square Pin Plug	Terminal Block	Terminal Block
	Surge Protection	NA	NA	500V
	Ignition Control	NA	Yes	Yes
	Remote Switch	NA	Yes	Yes
Dimensions (W x L x H)		437 x 533 x 89 mm (17.2" x 21.0" x 3.5")	483 x 301 x 44 mm (19.0" x 11.9" x 1.7")	483 x 301 x 44 mm (19.0" x 11.9" x 1.7")
Weight		20.0 kg (44.10 lb)	4.0 kg (8.8 lb)	4.0 kg (8.8 lb)
Mounting		Rackmount	Rackmount	Rackmount
Operating Temperature		0°C to 40°C (32°F to 104°F)	-40°C to 70°C (-40°F to 158°F)	-40°C to 55°C (-40°F to 131°F)
Storage Temperature		-20°C to 75°C (-4°F to 167°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64, IEC 61373	IEC 60068-2-64, IEC 61373
Shock		IEC 60068-2-27	IEC 60068-2-27, IEC 61373	IEC 60068-2-27, IEC 61373
Certification		CE, FCC	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1

High-performance
Fanless Systems

2

GPU Computing
Systems

3

10GigE Embedded
Systems

4

Expandable
Fanless Systems

5

Ultra-Compact
Fanless Systems

6

Rackmount
Systems

7

Industrial Multi-
Touch Computers/
Displays

8

Industrial
Motherboards

9

Embedded
Peripherals

Industrial Multi-Touch Computers

Series		MTC-7000			
Model No.		MTC-7021W	MTC-7015W	MTC-7015	MTC-7010W
Product Image					
Panel	LCD Size	21.5" (16 : 9)	15.6" (16 : 9)	15.6" (4 : 3)	10.1" (16 : 10)
	Max Resolution	1920 x 1080 (Full HD)	1366 x 768 (WXGA)	1024 x 768 (XGA)	1280 x 800 (WSVGA)
	Brightness (cd/m ²)	250	400	250	300
	Contrast Ratio	3000 : 1	500 : 1	700 : 1	1300 : 1
	LCD Color	16.7M	16.7M	16.7M	262K
	Viewing Angle (H/V)	89/89/89/89	85/85/80/80	80/80/70/70	85/85/85/85
Touch Screen	Screen Type	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive
	Touch Type	10-point	10-point	10-point	10-point
	Interface	USB	USB	USB	USB
	7H Anti-scratch	Yes	Yes	Yes	Yes
System	CPU	Intel® Core™ i7-8665UE/ i5-8365UE/i3-8145UE/ Celeron® 4305UE	Intel® Core™ i7-8665UE/ i5-8365UE/i3-8145UE/ Celeron® 4305UE	Intel® Core™ i7-8665UE/ i5-8365UE/i3-8145UE/ Celeron® 4305UE	Intel® Core™ i7-8665UE/ i5-8365UE/i3-8145UE/ Celeron® 4305UE
	Memory Type	260-pin SO-DIMM, DDR4 2400MHz	260-pin SO-DIMM, DDR4 2400MHz	260-pin SO-DIMM, DDR4 2400MHz	260-pin SO-DIMM, DDR4 2400MHz
	Memory Capacity	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM
	Display	1 DVI-D, 1 DisplayPort	1 DVI-D, 1 DisplayPort	1 DVI-D, 1 DisplayPort	1 DVI-D, 1 DisplayPort
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Storage	SATA III	1	1	1	1
	CFast	NA	NA	NA	NA
	mSATA	1 (Full-size Mini PCIe)	1 (Full-size Mini PCIe)	1 (Full-size Mini PCIe)	1 (Full-size Mini PCIe)
External I/O	Serial	2 RS-232/422/485	2 RS-232/422/485	2 RS-232/422/485	2 RS-232/422/485
	USB 3.0	4	4	4	4
	USB 2.0	NA	NA	NA	NA
	GigE LAN	2	2	2	2
	PoE LAN	NA	NA	NA	NA
	Audio	NA	NA	NA	NA
	Isolated DIO	NA	NA	NA	NA
	GPIO	NA	NA	NA	NA
Expansion	Others	1 SSD/HDD Kit (External)	1 SSD/HDD Kit (External)	1 SSD/HDD Kit (External)	1 SSD/HDD Kit (External)
	Mini PCIe	2	2	2	2
	SIM Card	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
Power	Input	DC-in 9V to 48V	DC-in 9V to 48V	DC-in 9V to 48V	DC-in 9V to 48V
	Surge Protection	NA	NA	NA	NA
	Ignition Control	NA	NA	NA	NA
	Remote Switch	NA	NA	NA	NA
Dimensions (W x H x L)		538 x 329 x 77 mm (21.2" x 13.0" x 3.0")	392 x 242 x 66 mm (15.4" x 9.5" x 2.6")	361 x 278 x 77 mm (14.2" x 10.9" x 3.0")	256.5 x 178.3 x 69.1 mm (10.1" x 7.0" x 2.7")
Weight		6.35 kg (13.99 lb)	3.6 kg (7.94 lb)	4.1 kg (9.04 lb)	1.85 kg (4.08 lb)
Front Panel Protection		IP65 Compliant	IP65 Compliant	IP65 Compliant	IP65 Compliant
Mounting		VESA Mount, Panel Mount	VESA Mount, Panel Mount	VESA Mount, Panel Mount	VESA Mount, Panel Mount
Operating Temperature		-5°C to 55°C (-23°F to 131°F)	-5°C to 55°C (-23°F to 131°F)	-5°C to 55°C (-23°F to 131°F)	-5°C to 55°C (-23°F to 131°F)
Storage Temperature		-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
EMC		CE, FCC	CE, FCC	CE, FCC	CE, FCC

MTC-8000				MTC-1000
MTC-8021W	MTC-8015W	MTC-8015	MTC-8010W	MTC-1010W
				
21.5" (16 : 9)	15.6" (16 : 9)	15" (4 : 3)	10.1" (16 : 10)	10.1" (16 : 10)
1920 x 1080 (Full HD)	1366 x 768 (WXGA)	1024 x 768 (XGA)	1280 x 800 (WSVGA)	1280 x 800 (WSVGA)
250	400	250	300	350
3000 : 1	500 : 1	700 : 1	1300 : 1	800:1
16.7M	16.7M	16.7M	262K	16.7M
89/89/89/89	85/85/80/80	80/80/70/70	85/85/85/85	85/85/85/85
Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive
10-point	10-point	10-point	10-point	10-point
USB	USB	USB	USB	USB
Yes	Yes	Yes	Yes	Yes
Intel Atom® x7-E3950	Intel Atom® x7-E3950	Intel Atom® x7-E3950	Intel Atom® x7-E3950	Intel Atom® x7-E3950
204-pin SO-DIMM, DDR3L 1866MHz	204-pin SO-DIMM, DDR3L 1866MHz	204-pin SO-DIMM, DDR3L 1866MHz	204-pin SO-DIMM, DDR3L 1866MHz	204-pin SO-DIMM, DDR3L 1866MHz
Max 8GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM
1 VGA, 1 HDMI	1 VGA, 1 HDMI	1 VGA, 1 HDMI	1 VGA, 1 HDMI	1 VGA, 1 HDMI
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
1	1	1	1	1
NA	NA	NA	NA	NA
1 (Full-size Mini PCIe)	1 (Full-size Mini PCIe)	1 (Full-size Mini PCIe)	1 (Full-size Mini PCIe)	1 (Full-size Mini PCIe)
2 RS-232/422/485	2 RS-232/422/485	2 RS-232/422/485	2 RS-232/422/485	1 RS-232/422/485
2	2	2	2	2
2	2	2	2	2
2	2	2	2	2
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
1 SSD/HDD Kit (External)	1 SSD/HDD Kit (External)	1 SSD/HDD Kit (External)	1 SSD/HDD Kit (External)	1 SSD/HDD Kit (External)
2	2	2	2	2
1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
DC-in 9V to 36V	DC-in 9V to 36V	DC-in 9V to 36V	DC-in 9V to 36V	DC-in 9V to 36V
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
538 x 329 x 77 mm (21.2" x 13" x 3.0")	392 x 242 x 66 mm (15.4" x 9.5" x 2.6")	361 x 278 x 77 mm (14.2" x 10.9" x 3.0")	256.5 x 178.3 x 69.1 mm (10.1" x 7.0" x 2.7")	256.5 x 178.3 x 47.1mm (10.1" x 7.0" x 1.9")
6.35 kg (13.99 lb)	3.6 kg (7.94 lb)	4.1 kg (9.04 lb)	1.85 kg (4.08 lb)	1.5 kg (3.31 lb)
IP65 Compliant	IP65 Compliant	IP65 Compliant	IP65 Compliant	N/A
VESA Mount, Panel Mount	VESA Mount, Panel Mount	VESA Mount, Panel Mount	VESA Mount, Panel Mount	VESA Mount, Panel Mount
-10°C to 60°C (-14°F to 140°F)	-10°C to 60°C (-14°F to 140°F)	-10°C to 60°C (-14°F to 140°F)	-10°C to 60°C (-14°F to 140°F)	-20°C to 60°C (-4°F to 140°F)
-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

1
High-performance
Fanless Systems

2
GPU Computing
Systems

3
10GigE Embedded
Systems

4
Expandable
Fanless Systems

5
Ultra-Compact
Fanless Systems

6
Rackmount
Systems

7
Industrial Multi-
Touch Computers/
Displays

8
Industrial
Motherboards

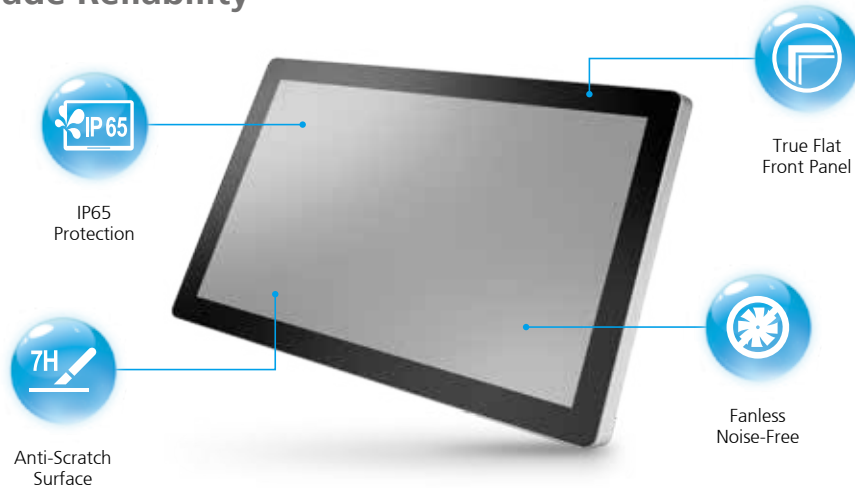
9
Embedded
Peripherals

Industrial Multi-Touch Displays

Series		MTD-6000				
Model No.		MTD-6024	MTD-6021	MTD-6019	MTD-6017	MTD-6015
Product Image						
Panel	LCD Size	24" (16 : 9)	21.5" (16 : 9)	19" (4 : 3)	17" (4 : 3)	15" (4 : 3)
	Max Resolution	1920 x 1080 (Full HD)	1920 x 1080 (Full HD)	1280 x 1024 (SXGA)	1280 x 1024	1024 x 768 (XGA)
	Brightness (cd/m ²)	250	250	250	250	250
	Contrast Ratio	3000 : 1	3000 : 1	1,000 : 1	1,000 : 1	600 : 1
	LCD Color	16.7M	16.7M	16.7M	16.7M	16.7M
	Viewing Angle (H/V)	89/89/89/89	89/89/89/89	85/85/80/80	85/85/80/80	80/80/70/70
Touch Screen	Screen Type	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive
	Touch Type	10-point	10-point	10-point	10-point	10-point
	Interface	USB	USB	USB	USB	USB
	7H Anti-scratch	Yes	Yes	Yes	Yes	Yes
System	CPU	NA	NA	NA	NA	NA
	Memory Type	NA	NA	NA	NA	NA
	Memory Capacity	NA	NA	NA	NA	NA
	Display	1 VGA, 1 DVI-D	1 VGA, 1 DVI-D	1 VGA, 1 DVI-D	1 VGA, 1 DVI-D	1 VGA, 1 DVI-D
	OS Support	Windows 10, Windows 7, Linux	Windows 10, Windows 7, Linux	Windows 10, Windows 7, Linux	Windows 10, Windows 7, Linux	Windows 10, Windows 7, Linux
Storage	SATA III	NA	NA	NA	NA	NA
	CFast	NA	NA	NA	NA	NA
	mSATA	NA	NA	NA	NA	NA
External I/O	Serial	NA	NA	NA	NA	NA
	USB 3.0	NA	NA	NA	NA	NA
	USB 2.0	NA	NA	NA	NA	NA
	GigE LAN	NA	NA	NA	NA	NA
	PoE LAN	NA	NA	NA	NA	NA
	Audio	Mic-in	Mic-in	Mic-in	Mic-in	Mic-in
	Isolated DIO	NA	NA	NA	NA	NA
	GPIO	NA	NA	NA	NA	NA
Expansion	Others	Internal speakers Type A USB for enable touch	Internal speakers Type A USB for enable touch	Internal speakers Type A USB for enable touch	Internal speakers Type A USB for enable touch	Internal speakers Type A USB for enable touch
	Mini PCIe	NA	NA	NA	NA	NA
	SIM Card	NA	NA	NA	NA	NA
Power	Input	DC-in 12V	DC-in 12V	DC-in 12V	DC-in 12V	DC-in 12V
	Surge Protection	NA	NA	NA	NA	NA
	Ignition Control	NA	NA	NA	NA	NA
	Remote Switch	NA	NA	NA	NA	NA
Dimensions (W x H x L)		576.9 x 345.9 x 54 mm (22.7" x 13.6" x 2.1")	360.9 x 277.8 x 54 mm (14.2" x 10.9" x 2.1")	425.5 x 350.5 x 54 mm (16.7" x 13.8" x 2.1")	392.4 x 324.7 x 54 mm (15.4" x 12.7" x 2.1")	360.9 x 277.8 x 54 mm (14.2" x 10.9" x 2.1")
Weight		8.3 kg (18.30lb)	5.8 kg (12.79 lb)	5.5 kg (12.13 lb)	4.7 kg (10.36 lb)	3.5 kg (7.72 lb)
Front Panel Protection		IP65 Compliant	IP65 Compliant	IP65 Compliant	IP65 Compliant	IP65 Compliant
Mounting		VESA Mount, Panel Mount	VESA Mount, Panel Mount	VESA Mount, Panel Mount	VESA Mount, Panel Mount	VESA Mount, Panel Mount
Operating Temperature		0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)
Storage Temperature		-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)
Humidity		5% to 90%, non-condensing	5% to 90%, non-condensing	5% to 90%, non-condensing	5% to 90%, non-condensing	5% to 90%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
EMC		CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

Optimized Industrial-grade Multi-Touch Solution

Industrial-grade Reliability



User-friendly Designs



Versatile Offerings



Flexible Integration



1 High-performance Fanless Systems

2 GPU Computing Systems

3 10GigE Embedded Systems

4 Expandable Fanless Systems

5 Ultra-Compact Fanless Systems

6 Rackmount Systems

7 Industrial Multi-Touch Computers/Displays

8 Industrial Motherboards

9 Embedded Peripherals

Industrial Motherboards

Series		Pico-ITX	3.5" Single Board Computer		
Model No.		EPBC-1000	EMBC-5000	EMBC-3000	EMBC-2000
Product Image		 Coming soon			
System	CPU	Intel Atom® x6212RE	Intel® Core™ i7-1185G7E/ i5-1145G7E	Intel® Core™ i7-8665UE/ i5-8365UE/i3-8145UE/ Celeron® 4305UE	Intel® Atom® x7-E3950
	Chipset	Intel® SoC	Intel® SoC	Intel® SoC	Intel® SoC
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 2400MHz	204-pin SO-DIMM, DDR3L 1866MHz
	Memory Capacity	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display	Graphics Engine	Intel® UHD Graphics for 10th Gen Intel® Processors	Intel® Iris®X Graphics	Intel® UHD 620	Intel® HD 505
	4K Resolution	Yes	Yes	Yes	Yes
	VGA	NA	NA	NA	1
	DVI-D	NA	1	1	NA
	HDMI	NA	NA	NA	1
	LVDS	NA	1	1	1
	DisplayPort	1	1	1	NA
Ethernet	LAN 1	Intel® I1225IT	Intel® I219LM	Intel® I219LM	Intel® I210
	LAN 2	Intel® I210	Intel® I210	Intel® I210	Intel® I210
	LAN 3	NA	NA	NA	NA
	LAN 4	NA	NA	NA	NA
	Connector	2 RJ45	2 RJ45	2 RJ45	2 RJ45
Audio	Codec	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Connector	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
Storage	SATA III	2	2	2	1
	mSATA	NA	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)
	M.2	1 M.2 Key B (2280, shared)	1 M.2 Key B 2260 Socket	NA	NA
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485 (2 w/Isolated)
	USB 3.0/3.1/3.2	2	4	4	2
	USB 2.0	2	2	2	4
	PS2 KB/MS	NA	1	1	1
	GPIO	8 GPIO	NA	NA	16 GPIO
Expansion	Mini PCIe	NA	2	2	2
	PCIe Slot	NA	NA	NA	NA
	PCI Slot	NA	NA	NA	NA
	SIM Card	1	1	1	1
	SUMIT	NA	2 (Optional)	2 (Optional)	NA
	M.2	1 M.2 Key B (3052, shared) 1 M.2 Key E (2230)	1 M.2 Key B Socket (3042/3052) 1 M.2 Key E Socket (2230)	NA	NA
Power	Input	DC-in 12V	DC-in 9V to 55V	DC-in 9V to 48V	DC-in 12V (Optional 9V to 36V)
	Connector	2-pin Terminal Block V+, V-	ATX 4-pin	ATX 4-pin	ATX 4-pin
	Ignition	NA	Yes	Yes	NA
Dimensions (W x L)		100 x 72 mm (3.9 x 2.8")	146 x 102 mm (5.75" x 4.02")	146 x 102 mm (5.75" x 4.02")	146 x 102 mm (5.75" x 4.02")
Operating Temperature		-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 75°C (-40°F to 167°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Certification		CE, FCC	CE, FCC	CE, FCC	CE, FCC

	5.25" Single Board Computer				Micro-ATX
EMBC-2000C	EXBC-2000	EXBC-1000	EXBC-1100	UMBC-1100	
					
Intel® Atom® x7-E3950	Intel® Core™ i7-8665UE/i3-8145UE	Intel® Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	
Intel® SoC	Intel® SoC	Intel® H310	Intel® C246	Intel® C246	
AMI	AMI	AMI	AMI	AMI	
204-pin SO-DIMM, DDR3L 1866MHz	260-pin SO-DIMM, DDR4 2400MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin UDIMM, DDR4 2666MHz	
Max 8GB, 1 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 128GB, 4 UDIMM	
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E	
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	
Intel® HD 500	Intel® UHD 620	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	
Yes	Yes	Yes	Yes	Yes	
1	NA	NA	NA	1	
NA	NA	1	1	NA	
1	NA	NA	NA	1	
1	1	1	1	NA	
NA	2	2	2	1	
Intel® I210	Intel® I350	Intel® I219LM	Intel® I219LM	Intel® I219LM	
Intel® I210	Intel® I350	Intel® I210	Intel® I210	Intel® I211	
NA	Intel® I350 PoE+	Intel® I210	Intel® I210	Intel® I211	
NA	Intel® I350 PoE+	Intel® I210	Intel® I210	Intel® I211	
2 RJ45	4 RJ45	4 RJ45	4 RJ45	4 RJ45	
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	
1	NA	2	2	8	
1 (Mini PCIe)	NA	1 (Mini PCIe)	1 (Mini PCIe)	NA	
NA	- 1 Key B 2280 - 1 Key M 2280	NA	NA	NA	
2 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	5 RS-232/422/485	
2	4	4	4	6	
4	NA	2	2	4	
1	NA	1	1	NA	
16 GPIO	16 GPIO	16 GPIO	16 GPIO	16 GPIO	
2	1	2	2	NA	
NA	NA	1 PCIe x16	1 (PCIe x16/PCIe x4/PCIe x1/USB 2.0)	1 PCIe x16, 2 PCIe x4	
NA	NA	NA	NA	NA	
1	2	1	1	NA	
NA	NA	NA	2 (Optional)	NA	
NA	- 1 Key B 3042/3052 - 1 Key Key E 2230	NA	NA	1 Key M 2280	
DC-in 12V (Optional 9V to 36V)	DC-in 9V to 50V	DC-in 12V	DC-in 12V	12V/5V/5VSB/3.3V	
ATX 4-pin	ATX 4-pin	ATX 4-pin	ATX 4-pin	ATX 24-pin, ATX 8-pin	
NA	Yes	NA	NA	NA	
146 x 102 mm (5.75" x 4.02")	203 x 146 mm (8.0" x 5.8")	203 x 146 mm (8.0" x 5.8")	203 x 146 mm (8.0" x 5.8")	244 x 244 mm (9.6" x 9.6")	
-40°C to 75°C (-40°F to 167°F)	-40°C to 85°C (-40°F to 185°F)	-25°C to 60°C (-13°F to 140°F)	-25°C to 60°C (-13°F to 140°F)	-0°C to 60°C (-32°F to 140°F)	
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	
CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC	

1

High-performance
Fanless Systems

2

GPU Computing
Systems

3

10GigE Embedded
Systems

4

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5

Ultra-Compact
Fanless Systems

6

Rackmount
Systems

7

Industrial Multi-
Touch Computers/
Displays

8

Industrial
Motherboards

9

Embedded
Peripherals

Embedded Peripherals

PCI/PCIe Cards		PoE LAN Card				
Model No.		PE-7004MX (M12)	PE-6004	PE-5004	PE-5002	PE-3014
Product Image						
Ethernet	Power Requirement	PCI Express x8	PCI Express x4	PCI Express x8	PCI Express x8	PCI Express x4
	LAN Controller	Intel® X550-AT2	Intel® I225-LM	Intel® XL710	Intel® XL710	Intel® I350
	LAN Controller Qty	2	4	1	1	1
	Data Rate	10Gbps/*5Gbps/ *2.5Gbps/1Gbps/ 100Mbps (*Linux only)	2.5Gbps/1Gbps/ 100Mbps/10Mbps	10Gbps/1Gbps/ 100Mbps	10Gbps/1Gbps/ 100Mbps	10/100/1000 Mbps
	PHY	NA	NA	Intel® X557	Intel® X557	NA
	PHY Qty	NA	NA	1	1	NA
	Number of Port	4	4	4	4	4
	Jumbo Frame	Up to 9.7KB	Up to 9KB	Up to 9.7KB	Up to 9.7KB	Up to 9728 byte
	Link Aggregation (LAG)	Present	Present	Present	Present	Present
	Connector	8-pin X-coded M12 Connector	NA	NA	NA	- 8-pin RJ45 - A-coded M12 (Optional)
	PoE Standard	IEEE 802.3at compliant	IEEE 802.3at compliant	IEEE 802.3at compliant	IEEE 802.3at compliant	IEEE 802.3at compliant
Power Requirement	Output	- Up to 25.5W Power Output @48V DC per port - 4 LED for PoE On/Off Mode	- 4 RJ45 Connector - 4 LED for PoE On/Off Mode - Up to 25.5W Power Output at 48V DC per port	- 4 RJ45 Connector - 4 LED for PoE On/Off Mode - Up to 25.5W Power Output at 48V DC per port	- 4 RJ45 Connector - 4 LED for PoE On/Off Mode - Up to 25.5W Power Output at 48V DC per port	- 4 RJ45 PoE Port - 4 A-coded M12 PoE Port (Optional) - Up to 25.5W Power Output at 48V DC per port
	Power Connector	1 4-pin 12V Power Connector	1 4-pin 12V Power Connector	1 4-pin 12V Power Connector	1 4-pin 12V Power Connector	1 4-pin 12V Power Connector
	DIO	NA	NA	NA	NA	NA
Software Support	OS	Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Windows 8.1, Windows 7, Linux
Mechanical	Dimensions (W x D x H)	167.7 x 111.2 x 19.9 mm (6.6" x 4.4" x 0.8")	167.7 x 111.1 mm (6.6" x 4.4")	168 x 111 mm (6.6" x 4.4")	168 x 111 mm (6.6" x 4.4")	168 x 121 mm (6.6" x 4.4")
	Bracket	Full Height	Full Height	Full Height	Full Height	Full Height
Environment	Operating Temperature	-25°C to 60°C with air flow (-40°F to 140°F)	-25°C to 60°C with air flow (-40°F to 140°F)	-25°C to 55°C with air flow (-40°F to 131°F)	-25°C to 55°C with air flow (-40°F to 131°F)	-25°C to 70°C (-13°F to 158°F)
	Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
	Humidity	5% to 95% Humidity, non-condensing	5% to 95% Humidity, non-condensing	5% to 95% Humidity, non-condensing	5% to 95% Humidity, non-condensing	5% to 95% Humidity, non-condensing
	Relative Humidity	95% @60°C	95% @60°C	95% @55°C	95% @55°C	95% @ 70°C
	EMC	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

PE-3004	PE-2004	PE-2002
		
PCI Express x4	PCI Express x4	PCI Express x4
Intel® I350	Intel® I210	Intel® I210
1	NA	NA
10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
NA	NA	NA
NA	NA	NA
4	NA	NA
Up to 9728 byte	9.5KB supported	9.5KB supported
Present	Present	Present
- 8-pin RJ45 - A-coded M12 (Optional)	8-pin RJ45	8-pin RJ45
IEEE 802.3at compliant	IEEE 802.3at compliant	IEEE 802.3at compliant
- 4 RJ45 PoE Port - 4 A-coded M12 PoE Port (Optional) - Up to 25.5W Power Output at 48V DC per port	- 4 RJ45 PoE Port - Up to 25.5W Power Output at 48V DC per port	- 4 RJ45 PoE Port - Up to 25.5W Power Output at 48V DC per port
1 4-pin 12V Power Connector	1 4-pin 12V Power Connector	1 4-pin 12V Power Connector
NA	16 Isolated DIO : 8 DI, 8 DO (Optional)	16 Isolated DIO : 8 DI, 8 DO (Optional)
Windows 10, Windows 8.1, Windows 7, Linux	NA	NA
168 x 121 mm (6.6" x 4.8")	168 x 121 mm (6.6" x 4.8")	168 x 121 mm (6.6" x 4.8")
Full Height	NA	NA
-25°C to 70°C (-13°F to 158°F)	-25°C to 70°C (-13°F to 158°F)	-25°C to 70°C (-13°F to 158°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95% Humidity, non-condensing	NA	NA
95% @70°C	NA	NA
CE, FCC	CE, FCC	CE, FCC

PCI/PCIe Cards		LAN Switch Card	
Model No.		SE-1014	SE-1004
Product Image			
Ethernet	Power Requirement	PCI Express x1	PCI Express x1
	LAN Controller	Intel® I210	Intel® I210
	LAN Controller Qty	1	1
	Data Rate	10/100/1000 Mbps	10/100/1000 Mbps
	Number of Port	4	4
	Jumbo Frame	Up to 9728 supported	Up to 9728 supported
	Link Aggregation (LAG)	NA	NA
	Connector	8-pin RJ45	8-pin RJ45
	PoE Standard	IEEE 802.3at compliant	IEEE 802.3at compliant
Power Requirement	Output	- 4 RJ45 PoE Port - Up to 25.5W Power Output at 48V DC per port	- 4 RJ45 PoE Port - Up to 25.5W Power Output at 48V DC per port
	Power Connector	1 4-pin 12V Power Connector	1 4-pin 12V Power Connector
Software Support	OS	Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Windows 8.1, Windows 7, Linux
Mechanical	Dimensions (W x L)	168 x 121 mm (6.6" x 4.8")	168 x 121 mm (6.6" x 4.8")
	Bracket	Full height	Full height
Environment	Operating Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
	Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
	Humidity	5% to 95% Humidity, non-condensing	5% to 95% Humidity, non-condensing
	Relative Humidity	95% @85°C	95% @85°C
	EMC	CE, FCC	CE, FCC

1

High-performance
Fanless Systems

2

GPU Computing
Systems

3

10GigE Embedded
Systems

4

Expandable
Fanless Systems

5

Ultra-Compact
Fanless Systems

6

Rackmount
Systems

7

Industrial Multi-
Touch Computers/
Displays

8

Industrial
Motherboards

9

Embedded
Peripherals

Embedded Peripherals

PCI/PCIe Cards		10G Card	
Model No.		LE-1055	FE-1071
Product Image			
Ethernet	Interface	PCI Express x4	PCI Express x4
	Controller	Intel® X550-AT2	Intel® X710-BM2
	Controller Qty	2	2
	Data Rate	10Gbps/5Gbps/ 2.5Gbps/1Gbps/ 100Mbps	10Gbps/5Gbps/ 2.5Gbps/1Gbps/ 100Mbps
	Number of Port	2	2
	Jumbo Frame	Up to 9728 supported	Up to 9728 supported
	Link Aggregation (LAG)	Present	Present
	Connector	8-pin RJ45	SFP+
Mechanical	Dimensions (W x L)	168 x 121 mm (6.6" x 4.8", PCIe low profile)	168 x 64 mm (6.6" x 2.5", PCIe low profile)
	Bracket	- Full height - Low profile (Optional)	- Full height - Low profile (Optional)
Environment	Operating Temperature	-40°C to 55°C (-40°F to 131°F, with Fan)	-40°C to 55°C (-40°F to 131°F, with Fan)
	Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
	Humidity	5% to 95% Humidity, non-condensing	5% to 95% Humidity, non-condensing
	Relative Humidity	95% @55°C	95% @55°C
	EMC	CE, FCC	CE, FCC

PCI/PCIe Cards		USB Card	
Model No.		UE-1008	UE-1004
Product Image			
Ethernet	Interface	PCI Express x4	PCI Express x4
	Controller	Renesas μPD720202	Renesas μPD720202
	Controller Qty	4	4
	Current Protection	900mA/1500mA per port	900mA/1500mA per port
	Data Rate	Super Speed (5Gbps)/ High Speed (480Mbps)/ Full Speed (12Mbps)/ Low Speed (1.5Mbps)	Super Speed (5Gbps)/ High Speed (480Mbps)/ Full Speed (12Mbps)/ Low Speed (1.5Mbps)
	Connector	8 USB 3.0 Type-A	8 USB 3.0 Type-A
	Dimensions (W x L)	168 x 121 mm (6.6" x 4.8")	168 x 121 mm (6.6" x 4.8")
	Operating Temperature	0°C to 70°C (32°F to 158°F)	0°C to 70°C (32°F to 158°F)
Environment	Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
	EMC	CE, FCC	CE, FCC

SUMIT		10G LAN	
Model No.		LSM-550-AT2	FSM-710-BM2
Product Image			
Ethernet	Controller	Intel® X550-AT2	Intel® X710-BM2
	Controller Qty	1	NA
	Data Rate	10Gbps/5Gbps/2.5Gbps/1Gbps/100Mbps	10Gbps
	Jumbo Frame	Up to 9728 bytes	Up to 9728 bytes
	Link Aggregation (LAG)	Present	Present
I/O Interface	Bus Type	LSM-550-AT2 : SUMIT B LSM-550-AT2-E : SUMIT A, B	FSM-710-BM2 : SUMIT B FSM-710-BM2-E : SUMIT A, B
	LAN	2 (RJ45)	2 (10GBASE SFP+)
	Mini PCIe	1 (Full-size)	1 (Full-size)
	SIM Card	1 SIM Card Socket (Internal, optional supports External I/O Type)	1 SIM Card Socket (Internal, optional supports External I/O Type)
	USB	1 USB 2.0	1 USB 2.0
Mechanical	Dimensions (W x L)	90 x 96 mm (3.5" x 3.8")	90 x 96 mm (3.5" x 3.8")
	Weight	150 g	160 g
Environment	Operating Temperature	-25°C to 55°C (-13°F to 131°F)	-25°C to 55°C (-13°F to 131°F)
	Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
	Humidity	5% to 95% Humidity, non-condensing	5% to 95% Humidity, non-condensing
	Relative Humidity	95% @55°C	95% @55°C
	EMC	CE, FCC	CE, FCC

SUMIT		SIM Sockets		
Model No.		ESM-201	ESM-200	ESM-100
Product Image				
I/O Interface	Bus Type	SUMIT A, B	SUMIT A, B	NA
	Mini PCIe	NA	NA	3 (Full Size)
	SIM Card Socket	2	2	3 (Internal, optional supports External I/O Type)
	USB	NA	NA	1 (USB 2.0)
	M.2	2 M.2 Key B (2230/2242/2280/3030/3042/3052)	2 M.2 Key B (2230/2242/2280/3030/3042/3052)	NA
Mechanical	Dimensions (W x L)	90.2 x 95.9 mm (3.5" x 3.8")	90.2 x 95.9 mm (3.5" x 3.8")	90 x 96 mm (3.5" x 3.8")
	Weight	145 g	145 g	145 g
Environment	Operating Temperature	0°C to 70°C (-40°F to 158°F)	0°C to 70°C (-40°F to 158°F)	-25°C to 70°C (-13°F to 158°F)
	Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
	Humidity	5% to 95% Humidity, non-condensing	5% to 95% Humidity, non-condensing	5% to 95% Humidity, non-condensing
	Relative Humidity	95% @70°C	95% @70°C	95% @70°C
	EMC	CE, FCC	CE, FCC	CE, FCC

1
High-performance
Fanless Systems

2
GPU Computing
Systems

3
10GigE Embedded
Systems

4
Expandable
Fanless Systems

5
Ultra-Compact
Fanless Systems

6
Rackmount
Systems

7
Industrial Multi-
Touch Computers/
Displays

8
Industrial
Motherboards

9
Embedded
Peripherals

Embedded Peripherals

SUMIT		2.5G LAN	1G LAN	Fiber LAN	
Model No.		LSM-200	LSM-100	FSM-200	FSM-100
Product Image					
Ethernet	LAN Controller	Intel® I225	Intel® 82574L	Intel® I350	Intel®82574L
	Controller Qty	NA	3	1	2
	Data Rate	2.5Gbps/1Gbps/100Mbps/10Mbps	1Gbps/100Mbps/10Mbps	1Gbps	1Gbps
	Jumbo Frame	Up to 9.7KB	Up to 9KB	Up to 9.5KB	Up to 9KB
	Link Aggregation (LAG)	Present	Present	NA	NA
	VLAN	802.1Q VLAN supported	NA	NA	NA
I/O Interface	Bus Type	SUMIT A, B	SUMIT A, B	SUMIT B	SUMIT A, B
	LAN	3 (RJ45)	3 (RJ45)	2 (SFP)	2 (100BASE-FX)
	PS2 KB/MS	NA	NA	1 (Optional)	1 (Optional)
Mechanical	Dimensions (W x L)	90 x 96 mm (3.5" x 3.8")	90 x 96 mm (3.5" x 3.8")	90 x 96 mm (3.5" x 3.8")	90 x 96 mm (3.5" x 3.8")
	Weight	145 g	150 g	150 g	170 g
Environment	Operating Temperature	-25°C to 70°C (-13°F to 158°F)	-25°C to 85°C (-13°F to 185°F)	0°C to 60°C (32°F to 140°F)	0°C to 60°C (32°F to 140°F)
	Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
	Humidity	5% to 95% Humidity, non-condensing	5% to 95% Humidity, non-condensing	5% to 95% Humidity, non-condensing	5% to 95% Humidity, non-condensing
	Relative Humidity	95% @70°C	95% @70°C	95% @70°C	95% @70°C
	EMC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

Mini PCIe Module		Digital I/O	
Model No.		DMX-110	DMX-100
Product Image			
GPIO	Interface	USB 2.0	USB 2.0
	Number of Port	4 (8-bit GPIO/each)	4 (8-bit GPIO/each)
	Power Input	3.3V DC-in	3.3V DC-in
	I/O Voltage	3.3V	3.3V
Isolated DIO Expansion Card	Number of port	- Input : 2 (8-bit GPIO/each) - Output : 1 with 16-bit Isolated DIO	NA
	I/O Voltage	- Sink Mode : 6V to 40V - Source Mode : 6V to 48V	NA
Mechanical	Dimensions (W x L)	DMX-100-M : 30 x 50.9 mm (1.2" x 2.0") DMX-100-E : 45 x 55.0 mm (1.8" x 2.2") Cable Length : 250mm (9.8")	DMX-100-M : 30 x 50.9 mm (1.2" x 2.0") Cable Length : 250mm (9.8")
	Weight	400 g	160 g
Software Support	OS	Windows 10, Windows 7, Linux	Windows 10, Windows 7, Linux
Environment	Operating Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
	Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
	Humidity	5% to 95% Humidity, non-condensing	5% to 95% Humidity, non-condensing
	Relative Humidity	95% @85°C	95% @85°C
	EMC	CE, FCC	CE, FCC

Mini PCIe Module		RS-232/422/485	
Model No.		SMX-200	SMX-100
Product Image			
Serial	Interface	Mini PCIe	Mini PCIe
	Controller	EXAR XR17V354	EXAR XR17V354
	Standard	RS-232/422/485 (ESD 2.5 kV)	RS-232/422/485
	Number of Port	4	4
	Baud Rate	Up to 921.6kbps	Up to 921.6kbps
	FIFOs	256 byte	256 byte
Software Support	Flow Control	CTS/RTS, Xon/Xoff	CTS/RTS, Xon/Xoff
	OS	Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Windows 8.1, Windows 7, Linux
Mechanical	Dimensions (W x L)	Mini Card : 30 x 51 mm (1.2" x 2.0") Cable Length : 250mm (9.8")	Mini Card : 30 x 51 mm (1.2" x 2.0") Cable Length : 250mm (9.8")
	Weight	145 g	145 g
Environment	Operating Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
	Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
	Humidity	5% to 95% Humidity, non-condensing	5% to 95% Humidity, non-condensing
	Relative Humidity	95% @85°C	95% @70°C
Environment	EMC	CE, FCC	CE, FCC

1
High-performance
Fanless Systems

2
GPU Computing
Systems

3
10GigE Embedded
Systems

4
Expandable
Fanless Systems

5
Ultra-Compact
Fanless Systems

6
Rackmount
Systems

7
Industrial Multi-
Touch Computers/
Displays

8
Industrial
Motherboards

9
Embedded
Peripherals

Embedded Peripherals

Mini PCIe Module		PoE LAN		
Model No.		PMX-101	PMX-100	LMX-200
Product Image				
Ethernet	Interface	PCI Express x1	PCI Express x1	PCI Express x1
	Controller	Intel® I210	Intel® I210	Intel® I210
	Data Rate	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	Number of Port	2	2	2
	Jumbo Frame	9.5KB supported	9.5KB supported	9.5KB supported
	Link Aggregation (LAG)	Present	Present	Present
	Connector	8-pin RJ45	8-pin RJ45	8-pin RJ45
	PoE Standard	IEEE 802.3at compliant	IEEE 802.3at compliant	NA
Power Requirement	Input	12V to 24V, DC Jack	12V to 24V, DC Jack	NA
	Output	Up to 25.5W Power Output at 48V DC per port	Up to 25.5W Power Output at 48V DC per port	NA
Mechanical	Dimensions (W x L)	Mini Card : 30 x 51 mm (1.2" x 2.0") Daughter Card : 56 x 61 mm (2.2" x 2.4") Cable Length : 300mm (11.8")	Mini Card : 30 x 51 mm (1.2" x 2.0") Daughter Card : 56 x 61 mm (2.2" x 2.4") Cable Length : 300mm (11.8")	Mini Card : 30 x 51 mm (1.2" x 2.0") Daughter Card : 56 x 61 mm (2.2" x 2.4") Cable Length : 300mm (11.8")
	Weight	145 g	145 g	145 g
Environment	Operating Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
	Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
	Humidity	5% to 95% Humidity, non-condensing	5% to 95% Humidity, non-condensing	5% to 95% Humidity, non-condensing
	Relative Humidity	95% @85°C	95% @85°C	95% @70°C
	EMC	CE, FCC	CE, FCC	CE, FCC

Mini PCIe Module		USB
Model No.		UMX-100
Product Image		
USB	Interface	Mini PCIe
	Controller	Renesas μPD720202
	Standard	USB 3.0 Rev. 1.0 compliant
	Number of Port	2
	Data Rate	Up to 5Gbps
	Link Aggregation (LAG)	Present
	Connector	19-pin Header
Software Support	OS	Windows 10, Windows 8.1, Windows 7, Linux
Mechanical	Dimensions (W x L)	Mini Card : 30 x 51 mm (1.2" x 2.0") Cable Length : 320mm (12.6")
	Weight	152 g
Environment	Operating Temperature	-40°C to 85°C (-40°F to 185°F)
	Storage Temperature	-40°C to 85°C (-40°F to 185°F)
	Humidity	5% to 95% Humidity, non-condensing
	Relative Humidity	95% @70°C
	EMC	CE, FCC

M.2 Module		1G LAN	PoE LAN
Model No.		LMT-100	LMT-100P
Product Image			
Ethernet	Interface	PCI Express x1	PCI Express x1
	Controller	Intel® I210	Intel® I210
	Data Rate	10/100/1000 Mbps	10/100/1000 Mbps
	Number of Port	2	2
	Jumbo Frame	9.7KB supported	9.7KB supported
	Link Aggregation (LAG)	Present	Present
	Connector	8-pin RJ45	8-pin RJ45
	PoE Standard	IEEE 802.3at compliant	IEEE 802.3at compliant
Power Requirement	Input	NA	12V to 24V, DC Jack
	Output	NA	Up to 25.5W Power Output at 48V DC per port
Mechanical	Dimensions (W x L)	M.2 Card : 22 x 80 mm (Foldable design for 22 x 42 mm or 22 x 52 mm) Daughter Card : 51 x 28 mm (2.2" x 2.4") Cable Length : 300mm (11.8")	M.2 Card : 22 x 80 mm (Foldable design for 22 x 42 mm or 22 x 52 mm) Daughter Card : 56 x 61 mm (2.2" x 2.4") Cable Length : 300mm (11.8")
	Weight	145 g	145 g
Environment	Operating Temperature	-40°C to 85°C (-40°F to 185°F), with air flow	-40°C to 85°C (-40°F to 185°F), with air flow
	Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
	Humidity	5% to 95% Humidity, non-condensing	5% to 95% Humidity, non-condensing
	Relative Humidity	95% @85°C	95% @85°C
	EMC	CE, FCC	CE, FCC

Series		Power Module	
Model No.		WPM-110	WPM-120
Product Image			
Power	Input Voltage	16V to 160V	9V to 55V
	Output	200W	750W
	Output Voltage	12V	12V
I/O Connector	Input Connector	ATX 6-pin Connector	2 1-pin Connector
	Output Connector	ATX 6-pin Connector	ATX 6-pin Connector
	Power/Fan Connector	1 4-pin Fan Connector	1 4-pin Fan Connector
Mechanical	Dimensions (L x W)	160 x 70 mm (6.3" x 2.8")	118 x 74 mm (4.7" x 2.9")
Protection	Over Voltage	13.2V to 15.6V	14.4V
	Over Current	18.7A to 24A	80A
	Isolation	4kV DC	NA
Environment	Surge Protection	0.5kV DC 8/20us Surge	TVS (8kW/58V)
	Operating Temperature	-40°C to 55°C (-40°F to 131°F)	-25°C to 55°C (-13°F to 131°F), with air flow
	Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
	Humidity	5% to 95% Humidity, non-condensing	5% to 95% Humidity, non-condensing
	Relative Humidity	95% @55°C	95% @55°C
	EMC	CE, FCC	CE, FCC

1
High-performance
Fanless Systems

2
GPU Computing
Systems

3
10GigE Embedded
Systems

4
Expandable
Fanless Systems

5
Ultra-Compact
Fanless Systems

6
Rackmount
Systems

7
Industrial Multi-
Touch Computers/
Displays

8
Industrial
Motherboards

9
Embedded
Peripherals

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