ADLINK
Leading EDGE COMPUTING

Solutions for Retail, Transportation, Medical, Automation and Manufacturing

Embedded Motherboards and Single Board Computers

Mini-ITX
ATX
Extend ATX
PICMG 1.3
PICMG 1.0

2018

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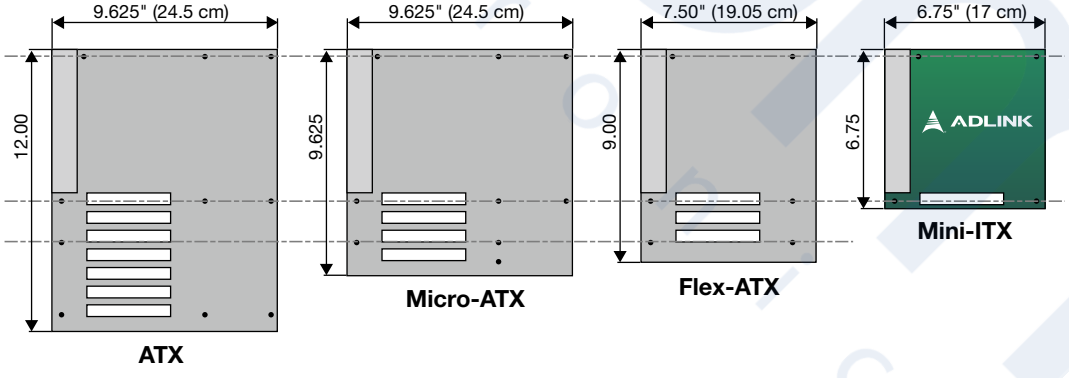
Mini-ITX

Small, Standard Form Factor for Today's Compact Systems

Industry trends indicate that users require smaller and lower cost solutions for their system requirements. Mini-ITX has a smaller board size than the other embedded motherboard form factors and fewer keep-out zones to enable a reduced chassis size for systems placed in the user's solution, mounted on a display, or installed in space-restrictive environments. Mini-ITX embedded boards offer the benefit of easy and fast development of industrial computing solutions. In addition to deployment in smaller chassis designed around the Mini-ITX form factor, these boards are compatible with ATX and micro-ATX chassis without the need to retool the I/O shield. Mini-ITX embedded boards are ideal for applications in industrial automation, medical, self-service kiosks, and infotainment driven solutions.



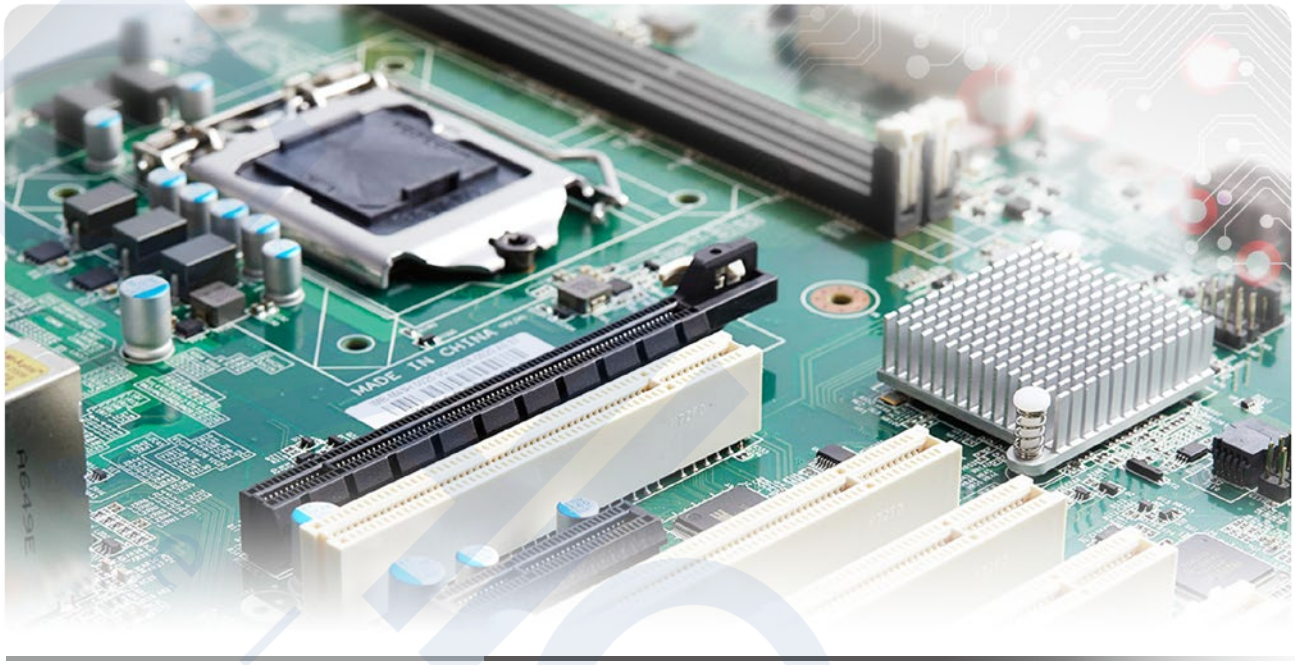
Flexible, High-Speed and Better Connectivity

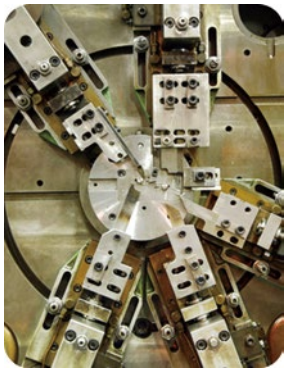
ADLINK Mini-ITX embedded boards support the latest Intel and AMD processors to deliver a high performance and space-saving platform for a wide array of embedded computing applications. Along with its compact footprint, this product line supports high processing speeds and high-bandwidth network connectivity with PCI Express-based Gigabit Ethernet. Coupled with ample memory, diverse I/O, storage, and audio interfaces, ADLINK Mini-ITX embedded boards are suitable for multimedia, automation control, and gaming applications requiring a compact, easy-to deploy, and cost-effective mainboard.

Group	High Performance	Low Power Consumption	
Product Name	AmITX-SL-G (Updated)	AmITX-AL-I	AmITX-BT-I
Product Image			
CPU	7th Gen. Intel® Core™ (formerly codename: Kaby Lake) i7-7700/i7-7700T i5-7500/i5-7500T i3-7101E/i3-7101TE 6th Gen. Intel® Core™ i7-6700/6700TE i5-6500/-6500TE i3-6100/6100TE Intel® Pentium® G4400/G4400TE Intel® Celeron® G3900/G3900TE	Intel Atom® E3950/E3940/E3930 Intel Pentium® N4200 Intel Celeron® N3350	Intel Atom® E3845/E3826/E3825/E3815 Intel Celeron® N2930/J1900
Chipset	Q170 or H110	-	-
Memory	Up to 32 GB DDR4 Dual Channel at 2400/2133 MHz	Up to 16 GB Dual Channel DDR3L at 1866/1600 MHz	Up to 8 GB Dual Channel DDRL3 at 1333/1066 MHz
Graphics Outputs	Q170: up to 3x independent displays H110: up to 2x independent displays 3x DP, up to 4096x2160 pixels 1x LVDS, up to 1920x1200 pixels eDP (opt.), up to 4096x2304 pixels (not available concurrently with LVDS)	Up to 3x independent: DP/HDMI/LVDS (or eDP) or 2x DP + LVDS (or eDP) 1x DP 1.2a, up to 4096x2160 pixels (2x DP opt., one is in place of HDMI) 1x HDMI1.4b, up to 3840x2160 pixels (co-lay with DP) 1x single/dual channel LVDS, up to 1920x1200 (opt., in place of eDP) 4x eDP, up to 4096x2160 pixels (opt., in place of LVDS)	Up to 2x independent displays 1x VGA, up to 1920x1200 pixels 1x HDMI 1.3a, up to 2560x1600 pixels 1x LVDS single/Dual channel 24-bit, up to 1920x1200 pixex, non-EDID type supported
SATA	3x SATA 6 Gb/s	2x SATA 6 Gbps ports (one shared with mSATA)	2x SATA 3.0 Gbps port (one shared with mSATA)
LAN	1x Intel® i219LM/i219-V(H110 sku), GbE	2x Intel® i211AT/i210AT(ETT sku), GbE	2x Intel® i211AT (MAC/PHY), GbE
Serial Port	1x RS-232/422/485 3x RS-232	2x RS-232/422/485 4x RS-232	3x RS-232/422/485 3x RS-232
USB	Q170: 7x USB 3.0, 4x USB 2.0 H110: 4x USB 3.0, 7x USB 2.0	4x USB 3.0 3x USB 2.0	4x USB 3.0 4x USB 2.0
Expansion Slots	1x PCIe x16 Gen 3, 1x PCIe x1 1x full size Mini PCIe + USB or mSATA 1x half size Mini PCIe+USB 1x SPI header for external BIOS	1x PCIe x1 1x Mini PCIe (half size) with PCIe/USB 1x mSATA (full size) SIM card (build option) microSD card (build option)	1x PCIe x1 1x Mini PCIe (half size) with PCIe/USB 1x mSATA (full size) SIM card 1x SPI header for external BIOS
SEMA Support	Yes		
Power Supply	Standard Input: ATX: 12V ±5% / 5Vsb ±5%, AT: 12V ±5% Peripheral Output: Onboard headers for fan and SATA power	Standard Input: 12V ±5% from internal 4-pin power connector or external DC jack Peripherals Output: Onboard headers for fan and SATA power	Standard Input ATX = 12V±5% / 5Vsb ±5% from internal header AT = 12V±5% from internal header or external screw connector Peripherals Output Onboard headers for fan and SATA power
Operating Temperature	0˚C to +60˚C	0°C to +60°C -40°C to +85°C (selected CPU)	0°C to +60°C -40°C to +85°C (selected CPU)
Form Factor & Compatibility	170 mm x 170 mm (L x W)	170 mm x 170 mm (L x W)	170 mm x 170 mm (L x W)
OS support	7th Gen Intel® Core™ supportsn: Windows 10. Linux, VxWork 6th Gen Intel® Core™ supports: Windows 7/8.1/10, WES 7, Linux, VxWorks	Windows 10, Linux, VxWorks	Windows 7/8, Linux, VxWorks

Note:
- Optional operating temperature from -40°C to +85°C for low power processor types
- All specifications are subject to change without further notice.

ATX





The Industrial Motherboards Empower Industrial Automation Solutions

ADLINK's ATX motherboards provide optimal platforms for industrial automation, with one-piece PCBA design with no board-to-board connection significantly improving reliability and durability. The 305 x 244 mm profile is particularly suitable for space/cost sensitive applications where fewer than 7 slots are required. Rich features such as multiple PCIe/PCI/LAN/USB3.0 enable immediate multi-tasking deployment, balancing performance and expandability. ADLINK's flexible PCIe configuration enables integration of off-the-shelf frame grabbers, motion controllers, and data acquisition cards into industrial computers, with the assurance of strict verification testing and presenting an optimum solution for combined motion & vision applications.

Industrial ATX Motherboards

The ATX motherboard specification, developed originally by Intel in 1995, was the first major change in desktop enclosure, motherboard, and power supply design in many years, improving standardization and interchangeability of parts. The specification defines key mechanical dimensions, mounting points, I/O panel, power, and connector interfaces between case, motherboard, and power supply. ADLINK's industrial motherboards, powered by processors ranging from Intel® Core™ -based solutions to server-grade Intel Xeon, are provided in a variety of form factors including ATX, Extended ATX, and Mini-ITX. Featuring reliable industrial grade design, flexible expandability, and competitive price, they are ideal solutions for industrial applications requiring fast time to market with reliable application control.

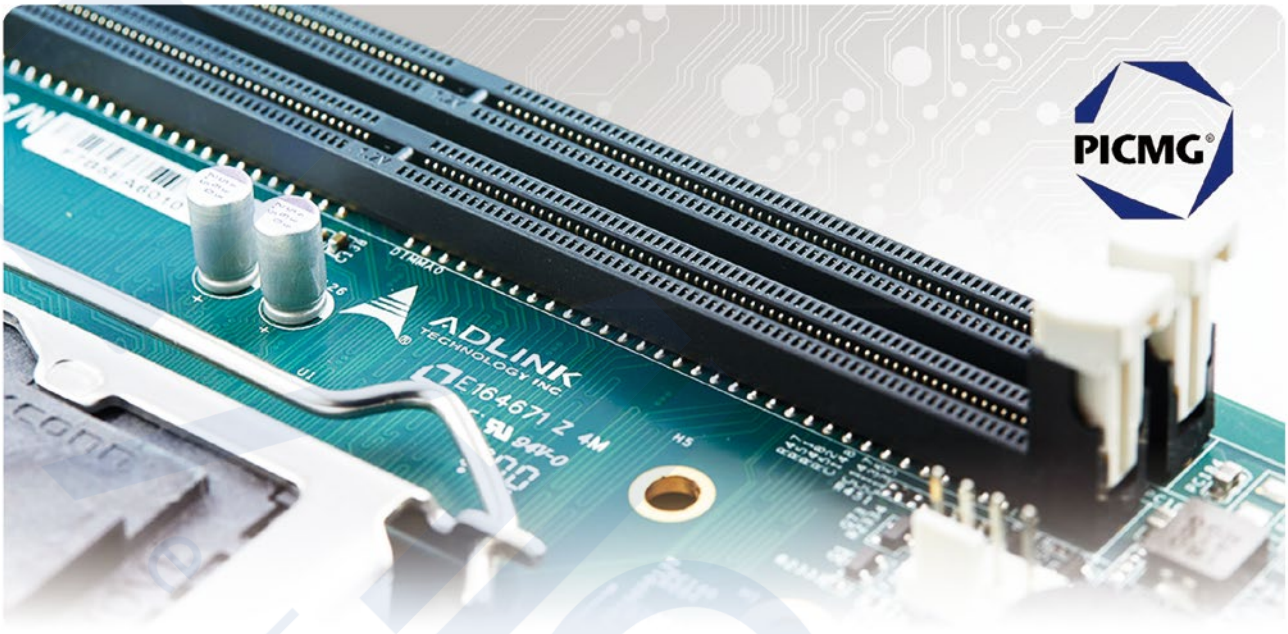
Industrial Chassis

ADLINK 's rack- and wall-mountable industrial chassis target a variety of industrial automation applications. With integrated subsystem design and service, performance is fully optimized for combined motion/vision/IO applications.

Group		ATX			Extended ATX
Product Name		IMB-M43H	IMB-M43	IMB-M42H	IMB-M40H
Product Image					
CPU	Socket	LGA1151	LGA1151	LGA1150	LGA1155
	CPU Support	7th Gen. Intel® Core™ i7-7700/i7-7700T i5-7500/i5-7500T i3-7101E/i3-7101TE 6th Gen. Intel® Core™ i7-6700/6700TE i5-6500/6500TE i3-6100/6100TE Intel® Pentium® G4400/G4400TE Intel® Celeron® G3900/G3900TE	7th Gen. Intel® Core™ i7-7700/i7-7700T i5-7500/i5-7500T i3-7101E/i3-7101TE 6th Gen. Intel® Core™ i7-6700/6700TE i5-6500/6500TE i3-6100/6100TE Intel® Pentium® G4400/G4400TE Intel® Celeron® G3900/G3900TE	4th Gen. Intel® Core™ i7-4790S/4770S i5-4590S/4570S i3-4360/4330 Intel® Pentium® G3420 Intel® Celeron® G1820	3rd/2nd Gen. Intel® Core™ i7-3770/2600 i5-3550S/2400 i3-3220/2120 Intel® Pentium® G2120/G850 Intel® Celeron® G1620/G540
Chipset	PCH	H110	Q170	H81	H61
Memory	DIMM Type	DDR4	DDR4	DDR3	DDR3
	Frequency	2133/2400 MHz (based on CPU)	2133/2400 MHz (based on CPU)	1333/1600 MHz (based on CPU)	1066/1333/1600 MHz (based on CPU)
	DIMM Slots	2	4	2	2
	Max. Capacity	32GB	64 GB	16 GB	16 GB
	ECC	-	-	-	-
Form Factor	Dimensions	305 mm x 244 mm (W x L)	305 mm x 244 mm (W x L)	305 mm x 244 mm (W x L)	305 mm x 218 mm (W x L)
Display	Graphics	Intel® HD Graphics	Intel® HD Graphics	Intel® HD Graphics	Intel® HD Graphics
	VGA Support	1	1	1	1
	DVI-D Support	-	-	-	1
	HDMI Support	1	-	1	-
	DisplayPort	-	2	1	-
	No. of Displays Support	2	3	2	2
Ethernet	GbE port	2	2	1	2
	Controller	Intel® i219LM and Intel i211AT	Intel® i219LM and Intel i211AT	Intel® I217V	Realtek® RTL8111E
Storage	Serial ATA	4x SATA 6 Gb/s ports	6x SATA 6 Gb/s ports	2x SATA 6Gb/s, 2x SATA 3Gb/s	4x SATA 3 Gb/s
	RAID	-	Intel SW RAID 0/1/5/10	-	-
I/O Ports	USB	4x USB 3.0 (rear), 4x USB 2.0 (2x pin header + 2x rear), 2x USB 2.0 (Vertical Type A)	8x USB 3.0 (2x pin header + 6x rear) 4x USB 2.0 (pinheader) 2x USB 2.0 (Vertical Type A)	8x USB 2.0 (4x pin header + 4x rear), 2x USB 3.0 (rear)	10x USB 2.0(6x pin header + 4x rear)
	LPT	1	1	1	-
	COM	4x RS-232 (pin header), 2x RS-232/422/485 auto flow control (rear)	4x RS-232 (pinheader), 2x RS-232/422/485 auto flow control (rear)	2x RS-232/422/485 (rear), (one support 485 auto flow control), and 4x RS-232pin header	5x RS-232 (1x rear + 4x pinheader), 1x RS-232/422/485 auto flow control (pinheader)
	PS/2 KB/MS	1x PS/2 combo port	1x PS/2 combo port	1x PS/2 combo port	1x KB, 1x MS
	Audio	Realtek® ALC892	Realtek® ALC262	Realtek® ALC662	Realtek® ALC892
Expansion Slots		1x PCIe x16, 1x PCIe x4, 5x PCI slots	1x PCIe x8, 4x PCIe x4, 2x PCI slots	1 X PCIe x16, 1 x PCIe x4, 4x PCI slots	1x PCIe x16, 2x PCIe x1, 4x PCI slots
Opearation System		Microsoft® Windows® 7 (Based on CPU) 32/64-bit, Microsoft® Windows® 10 64-bit, Fedora 25, Ubuntu 16.04 LTS	Microsoft® Windows® 7 (Based on CPU) 32/64-bit, Microsoft® Windows® 8.1 64-bit, Microsoft® Windows® 10 64-bit, Ubuntu 15.10	Win 7 / 8.1 (32/64bit), Win XP 32 bit, , Fedora 19, Ubuntu 13.10, RedHat Enterprise Linux 7.0	Win XP/ 7 (32/64 bit), Fedora 17

Note: All specifications are subject to change without further notice.

PICMG 1.3/1.0



Optimized Platform for Industrial Automation& Machine Vision

ADLINK's industrial Slot Single Board Computers (SBCs) and backplanes follow PCI Industrial Computer Manufacturers Group (PICMG) 1.0 and 1.3 standards, with card-on-backplane architecture delivering faster Mean Time to Repair (MTTR) over conventional motherboard designs, flexible backplane configurations, functionality with a broad range of off-the-shelf peripheral cards. ADLINK's wide range of PICMG 1.0/1.3 CPU board-compatible backplanes are fully co-functional with ADLINK systems, for flexible configuration and expandability in industrial applications.

PICMG 1.0 Single Board Computer

This standards-based system/peripheral card-on-backplane architecture is widely accepted in embedded computing, with PICMG 1.0 the first industry standard for system/peripheral cards-on-backplane, with support for PCI/ISA interface from board to backplane. Establishment of this standard provided a stable and efficient environment for manufacturers to simplify design efforts, minimize costs, allow interoperability of products from different vendors, and stimulate new product development.

PICMG 1.3 Single Board Computer

The PICMG 1.3 specification is the latest evolution in PICMG 1.x system design, addressing the need for faster system platforms with high bandwidth interfaces with peripheral cards. While flexible system design and PCI compatibility of the older specifications have been preserved in PICMG 1.3, the ISA bus has been replaced by point-to-point PCI Express serial links, providing advanced features such as high bandwidth for data transmission and robust link integrity. The PICMG 1.3 specification allows users to take maximum advantage of the latest chipset functionalities, increasing bandwidth capability and allowing flexible, simplified system design.

Passive Backplanes

A wide range of ADLINK backplanes are available for PICMG 1.0/1.3 CPU boards. Fully co-functional with ADLINK systems, they deliver flexible configuration and expandability for industrial applications.

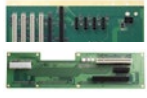
Group		PICMG 1.3			PICMG 1.0
Product Name		NuPRO-E43	NuPRO-E42	NuPRO-E72	NuPRO-A40H
Product Image					
CPU	Socket	LGA1151	LGA1150	LGA1150	LGA1155
	CPU Support	6th Gen. Intel® Core™ i7-6700/6700TE i5-6500/6500TE i3-6100/6100TE Intel® Pentium® G4400/G4400TE Intel® Celeron® G3900/G3900TE	4th Gen. Intel® Core™ i7-4790S/4770S i5-4590S/4570S i3-4360/4330 Intel® Pentium® G3420 Intel® Celeron® G1820	4th Gen. Intel® Xeon® E3-1275 v3/E3-1225 v3/E3-1268L v3 i7-4790S/4770S i5-4590S/4570S i3-4360/4330 Intel® Pentium® G3420 Intel® Celeron® G1820	3rd/2nd Gen. Intel® Core™ i7-3770/2600 i5-3550S/2400 i3-3220/2120 Intel® Pentium® G2120/G850 Intel® Celeron® G540
Chipset	PCH	Q170	Q87	C226	H61
Memory	DIMM Type	DDR4	DDR3	DDR3	DDR3
	Frequency	2133MHz	1333/1600 MHz (based on CPU)	1333/1600 MHz(based on CPU)	1066/1333/1600 MHz (based on CPU)
	DIMM Slots	2	2	2	2
	Max. Capacity	32 GB	16 GB	16 GB	16 GB
	ECC/Reg	-	-	Yes, ECC UDIMM support(based on CPU)	-
Form Factor	Dimensions	338mm x 126mm (L x W)	338mm x 126mm (L x W)	338mm x 126mm (L x W)	338 mm x 122 mm (L x W)
Display	Graphics	Intel® HD Graphics	Intel® HD Graphics	Intel® HD Graphics	Intel® HD Graphics
	VGA Support	Yes	Yes	Yes	Yes
	DVI-D Support	Yes (pinheader)	Yes (pinheader)	Yes (pinheader)	Yes (pinheader)
Ethernet	GbE port	2	2	2	2
	Controller	Intel® i219LM and Intel® i211AT	Intel® i217LM and Intel® i211AT	Intel® i217LM and Intel® i211AT	Dual Intel® i211AT
Storage	Serial ATA	4x SATA 6 Gb/s (onboard)	4x SATA ports 6 Gb/s (onboard)	4x SATA ports 6 Gb/s (onboard)	4x SATA 3Gb/s (onboard)
I/O Ports	USB	8x USB 3.0 (2x rear,6x pinheader) 4x USB 2.0 (backplane)	6x USB 3.0 (2x rear,4x pinheader) 4x USB 2.0 (backplane)	6x USB 3.0 (2x rear,4x pinheader) 4x USB 2.0 (backplane)	8x USB 2.0 (2x rear,6x pinheader)
	LPT	Yes	-	-	Yes
	COM	2x RS-232 2x RS-232/422/485 auto flow control (pinheader)	5x RS-232, 1x RS-232/422/485 auto flow control (pinheader)	5x RS-232 1x RS-232/422/485 auto flow control (pinheader)	5x RS-232, 1x RS-232/422/485 auto flow control (pin header)
	PS/2 KB/MS	Yes (pinheader)	Yes (pinheader)	Yes (pinheader)	Yes (pinheader)
	Audio	Realtek® ALC262 DB-Audio 2 (Option)	Realtek® ALC262 DB-Audio 2 (Option)	Realtek® ALC262 DB-Audio 2 (Option)	Realtek® ALC262 DB-Audio 2 (Option)
Expansion Slots		1x PCIe x8 & 3x PCIe x4 with WBP-13E4 4x PCI	1x PCIe x16 1x PCIe x4 or 4x PCIe x1 4x PCI	1x PCIe x8, 3x PCIe x4 with WBP-13E4 4x PCI	PCI & ISA
TPM		Option	Yes	Yes	
Opearation System		Microsoft® Windows® 7 32/64-bit Microsoft® Windows® 8.1 64-bit Microsoft® Windows® 10 64-bit Ubuntu 15.10	Microsoft® Windows® XP 32-bit Microsoft® Windows® 7 32/64-bit Microsoft® Windows® 8 32/64-bit	Microsoft® Windows® 7 64-bit Microsoft® Windows® 8.1 64-bit Fedora 19 64-bit RedHat Enterprise Linux 6.5 64-bit	Win XP / 7 (32/64bit), Fedora 17, Redhat Enterprise Linux 6

Note: All specifications are subject to change without further notice.

Backplanes

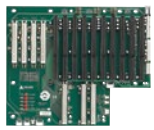
Group	PICMG® 1.3 Backplanes				
Product Name	WBP-13E4	EBP-5E1	EBP-7E2	EBP-9E2	EBP-D3E1
Product Image					
PCI-E® x16	1*	1	1	1	-
PCI-E® x4	3	-	1	1	1
PCI-X™	-	1	-	-	-
PCI™	8	2	4	6	-
AT	-	-	-	-	-
ATX	Yes	Yes	Yes	Yes	Yes
Segments	1	1	1	1	1
Dimensions	328 mm x 312 mm	153 mm x 330 mm	328 mm x 206 mm	328 mm x 206 mm	331 mm x 39 mm
SATA	2	2	2	2	2
USB 2.0	4(2x vertical, 2x pinheader)	4(pinheader)	4(pinheader)	4(pinheader)	4(pinheader)

* PCIe x8 signal

Group	PICMG® 1.3 Backplanes					
Product Name	EBP-6E2	EBP-D5E2	EBP-10E5	EBP-13E2	EBP-13E4	EBP-9E5
Product Image						
PCI-E® x16	1	1	1	1	1	1
PCI-E® x4	1	1	-	1	3	-
PCIe x1	-	-	4	-	-	4
PCI-X™	-	-	-	-	-	-
PCI™	3	2	4	10	7	3
AT	-	-	-	-	-	-
ATX	Yes	Yes	Yes	Yes	Yes	Yes
Segments	1	1	1	1	1	1
Dimensions	328 mm x 140 mm	331 mm x 84 mm	330 mm x 318 mm	330 mm x 318 mm	330 mm x 318 mm	244 mm x 348 mm
SATA	2	2	2	2	2	2
USB 2.0	4 (pinheader)	4 (pinheader)	4 (pinheader)	4 (pinheader)	4 (pinheader)	4 (pinheader)

Note: All specifications are subject to change without further notice.

Group	PICMG® 1.0 Backplanes				
Product Name	HPCI-D3S2	HPCI-D6S4	HPCI-6S4	HPCI-8S4	HPCI-9S7U
Product Image					
PCI™	2	4	4	4	7
ISA	-	1	1	3	1
AT	-	Yes	Yes	Yes	Yes
ATX	Yes	Yes	Yes	Yes	Yes
Segments	1	1	1	2	2
Dimensions	261 mm x 39 mm	261 mm x 79.6 mm	264.2 mm x 132.7 mm	264.2 mm x 218 mm	213.4 mm x 259.1mm

Group	PICMG® 1.0 Backplanes			
Product Name	HPCI-13S4LU	HPCI-14S12U	HPCI-14S/ATX	HPCI-19S18A
Product Image				
PCI™	4	12	4	18
ISA	7	1	8	0
AT	Yes	Yes	Yes	Yes
ATX	Yes	Yes	Yes	Yes
Segments	3	2	2	2
Dimensions	314.7 mm x 259 mm	314.7 mm x 259 mm	312 mm x 265 mm	415.3 mm x 264.2 mm

Note: All specifications are subject to change without further notice.

Chassis

Group	Rackmount Industrial Chassis		
Product Name	RK-110S / RK-110SE	RK-210S / RK-210E	RK-260 /RK-260-E/ RK-260AM
Product Image			
Type	Rackmount	Rackmount	Rackmount
Height	1U	2U	2U
Depth	17.7" (450mm)	17.7" (450mm)	17.7" (450mm) / 19.7" (500mm)
Backplane/ Motherboard Option	HPCI-D5S2 (RK-110S) EBP-D3E1 (RK-110SE)	HPCI-D6S4 (RK-210S) EBP-D5E2 (RK-210E)	HPCI-D6S4 (RK-260)、 EBP-D5E2 (RK-260-E)、 ATX motherboard (RK-260AM)

Group	Rackmount Industrial Chassis		
Product Name	RK-410FS	RK-440	RK-610A/RK-610AM
Product Image			
Type	Rackmount	Rackmount	Rackmount
Height	4U	4U	4U
Depth	17.8" (451mm)	26.4" (671mm)	17.8" (451mm)
Backplane/ Motherboard Option	HPCI-13S4LU HPCI-14S12UHPCI-14S/ATX EBP-10E5、EBP-13E2 EBP-13E4、WBP-13E4	HPCI-19S18A	HPCI-13S4LU、HPCI-14S12U、 HPCI-14S/ATX、EBP-10E5、 EBP-13E2、EBP-13E4、 WBP-13E4(RK-610A) ATX motherboard(RK-610AM)

Group	Wallmount Industrial Chassis		
Product Name	RK-607B	RK-608B-E	RK-608MB-C
Product Image			
Type	6 slot for SBC	10 slot for SBC	7 slot for motherboard
Dimension	10 in x 6.9 in x 16.5 in (254 mm x 175 mm x 419.1 mm) (W x H x D)	13 in x 6.9 in x 16.5 in (330 mm x 175 mm x 418 mm) (W x H x D)	13 in x 7.7 in x 16 in (330 mm x 196 mm x 406 mm) (W x H x D)
Backplane/ Motherboard Option	HPCI-6S4、EBP-5E1、EBP-6E2	HPCI-8S4、HPCI-9S7U EBP-7E2、EBP-9E2、EBP-9E5	ATX motherboard

Note: All specifications are subject to change without further notice.

PICMG 1.0	Rackmount Chassis									
	Slots per Segment				PCI-X	Compatible Chassis				
	Segment	PCI	ISA			RK110S	RK-210S	RK-260	RK-410FS	RK-610
HPCI-D3S2	1	2	-		-	√				
HPCI-D6S4	1	4	1		-		√	√		
HPCI-13S4LU	3	4	7		-				√	√
HPCI-14S12U	2	12	1		-				√	√
HPCI-14S/ATX	2	4	8		-				√	√

PICMG 1.3	PICMG	PCI	PCI-E			PCI-X	RK-110SE	RK-210E	RK-260E	RK-410FS	RK-610
			x1	x4	x16						
EBP-10E5	1	4	4		1	-				√	√
EBP-13E2	1	10	-	1	1	-				√	√*
EBP-13E4	1	7	-	3	1	-				√	√
EBP-D5E2	1	2	-	1	1	-		√	√		
EBP-D3E1	1	-	-	1	-	-	√				
WBP-13E4	1	8	-	3	1**	-				√	√*

*Missing one PCI
**PCIe-x8 signal

PICMG 1.3	Wallmount Chassis						
	Slots per Segment				PCI-X	Compatible Chassis	
	Segment	PCI	ISA			RK-607B	RK-608B-E
HPCI-6S4	1	4	1		-	√	
HPCI-8S4	2	4	3		-		√
HPCI-9S7U	2	7	1		-		√

PICMG 1.3	PICMG	PCI	PCI-E			PCI-X	RK-607B	RK-608B-E
			x1	x4	x16			
EBP-5E1	1	2	-	-	1	1	√	
EBP-7E2	1	4	-	1	1	-		√
EBP-9E2	1	6	-	1	1	-		√
EBP-6E2	1	3	-	1	1	-	√	
EBP-9E5	1	3	4	-	1	-		√

Note: All specifications are subject to change without further notice.

Chassis

PICMG 1.0	Single Board Computers			
	Slots per Segment		ISA	Compatible SBCs
	Segment	PCI		NuPRO-A40H
HPCI-D3S2	1	2	-	√
HPCI-D6S4	1	4	1	√
HPCI-6S4	1	4	1	√
HPCI-8S4	2	4	3	√
HPCI-9S7U	2	7	1	√
HPCI-13S4LU	3	4	7	√
HPCI-14S12U	2	12	1	√
HPCI-14S/ATX	2	4	8	√
HPCI-19S18A	2	18	0	√

PICMG 1.3	Single Board Computers									
	Slots per Segment			PCI-E			Compatible SBCs			
	Segment	PCI	PCI-X	x1	x4	x16	NuPRO-E42	NuPRO-E340	NuPRO-E72	NuPRO-E43
EBP-5E1	1	2	1	-	-	1	√	√	√**	√
EBP-6E2	1	3	-	-	1	1	√	√	√**	√
EBP-7E2	1	4	-	-	1	1	√	√	√**	√
EBP-9E2	1	6	-	-	1	1	√	√	√**	√
EBP-9E5	1	3	-	4	-	1	√	√	√**	√
EBP-10E5	1	4	-	4	-	1	√	√	√**	√
EBP-13E2	1	10	-	-	1	1	√	√	√**	√
EBP-13E4	1	7	-	-	3	1	√	√	√**	√
EBP-D5E2	1	2	-	-	1	1	√	√	√**	√
EBP-D3E1	1	-	-	-	1	0	√	√	√**	√
WBP-13E4	1	8	-	-	3	1*	-	-	√	√

* PCIe x8 signal
** Need Special Part Number

Note: All specifications are subject to change without further notice.

Power Supplies

Mini-Redundant	Industrial Mini-Redundant AC Power Supply									
	Power (typical)	Maximum DC Output Current						AC Voltage Input Range	Certifications
		+5V	+3.3V	+12V	-12V	-5V	+5Vsb		
APS-946XAR	460 W	25 A	25 A	30 A	0.8 A	-	2 A	Universal	UL/cUL/TUV/CCC
APS-940XAR-EPS12 (for RK-440)	400 W	35 A	25 A	28 A	1.2 A	0.5 A	2 A	Universal	UL/cUL/TUV/CCC

* Dimensions: 195 x 160 x 86 (mm)

PS2 Form Factor	Industrial AC Power Supply PS2 Form Factor											
	Power (typical)	Maximum DC Output Current									AC Voltage Input Range	Certifications
		+5V	+3.3V	+12V1	+12V2	+12V3	+12V4	-12V	-5V	+5Vsb		
APS-930XA-ATX12	300 W	16 A	19 A	17 A	17 A	-	-	0.5 A	0.3 A	3 A	Universal	UL/cUL/TUV/CCC
APS-946XA-EPS12	460 W	20 A	24 A	16 A	16 A	-	-	0.5 A	0.3 A	3 A	Universal	UL/cUL/TUV/CCC
APS-960XA-EPS12	600 W	25 A	25 A	16 A	16 A			0.5 A	0.3 A	4 A	Universal	UL/cUL/TUV/CCC
APS-946XA-EPS12(for RK-440)	460 W	40 A	30 A	32 A	-	-	-	0.5 A	0.8 A	2 A	Universal	UL/cUL/TUV/CCC

* Dimensions : Standard PS2 form factor, 140 x 150 x 86 (mm) ; APS9100XA-EPS12 (for RK-470MB) form factor, 220 x 150 x 86 (mm)

Group	Industrial AC Power Supply 1U/2U Form Factor								
Product Name	Power (typical)	Maximum DC Output Current						AC Voltage Input Range	Certifications
		+5V	+3.3V	+12V	-12V	-5V	+5Vsb		
APS-9130XU	300 W	16 A	14 A	16 A	0.5 A	0.3 A	3 A	Universal	UL/cUL/TUV/CCC
APS-9235XU	350 W	25 A	20 A	28 A	-	0.5 A	2 A	Universal	UL/cUL/TUV/CCC

* Dimensions: APS-9130XU: 190 x 100 x 40.5 (mm) 、APS-9235XU : 215 x 100 x 70 (mm)

Note: All specifications are subject to change without further notice.

Heatsinks and Fans

Group	LGA1156 / LGA1151 / LGA1150		
Product Name	32-20131-0000	32-20113-2000	32-20113-0000
Product Image			
Thermal Dispatch performance	84Watt	95Watt	95Watt
FAN	75mm (blower)/11.83 CFM (5,500 ± 10%) R.P.M	95mm/ 78.74 CFM (6,100 ± 10%) R.P.M	95mm/ 42.73 CFM (4,200 ± 10%) R.P.M
Heatsink Materials	Copper	Aluminum + Cooper	Aluminum + Cooper
Heatsink Dimensions	84L x 84W x 13H (mm)	ø 95*24.8H (mm)	ø 90*39.3H (mm)
Dimensions	84L x 84W x 28H (mm)	ø 95*50.2H (mm)	ø 90*67.7H (mm)
Weight	466g	320g	600g
Minimum Chassis Height	1U	2U	3U
Recommended Chassis	RK-110S, RK-110SE	RK-210S, RK-210E, RK-260-E, RK-260AM, RK-440, RK-610A/AM, RK-608MB-C RK-607B, RK-608B-E	RK-440, RK-610A/AM, RK-608MB-C
Supported Boards	NuPRO-A40H/E72/ E42/E43, IMB-M43/M43H	NuPRO-A40H/ E72/E42/E43, IMB-M42H/M40H/ M-342/M43/M43H	NuPRO-E340

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Accessories

Product Name	HDD Adapter Brackets	4U Rear I/O Panel Kit
Product Image		
Ordering Information	· One 3.5" HDD in one 5.25" bay:34-30264-1000 · 2.5" to 3.5" HDD adapter bracket:58-80024-0000	· ATX rear I/O panel for RK-410: 58-80013-1000 · ATX rear I/O panel for RK-610A:34-90063-0000 · 15-slot rear I/O panel for RK-610A: 34-90064-0000

Product Name	Riser Card	COM Cable
Product Image		
Description	· 2UE1S2 Riser Card, PCIe x16 + 2 PCI slots · Designed for RK-260AM	· COM cable with bracket
Ordering Information	· 92-97051-0010	· 1 port (2.54 pitch,450mm): 30-25004-1000 (for IMB-M40H,M-342) · 1 port (2.0 pitch,450mm): 30-25003-2100 (for NuPRO-A40H/E340/E42/E72/E43) · 2 port (2.54 pitch,230mm): 30-25003-0020 (for NuPRO-A40H/E340/E42/E72) · 2 port (2.0 pitch,230mm): 30-25003-1000 (for NuPRO-A40H/E340/E42/E72/E43) · 2 port (2.54 pitch,600mm): 30-25053-1000 (for IMB-M42H) · 2 port (2.54 pitch,450mm): 30-25003-3000 (for NuPRO-A40H/E340/E42/E72/, IMB-M40H/M43,M-342) · 2 port (2.0 pitch,450mm): 30-25003-2100 (for NuPRO-A40H/E340/E42/E72/E43)

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Accessories

Product Name	USB 3.0 Cable	USB 2.0 Cable	KB/MS Cable	DVI Cable
Product Image				
Description	· 2-port USB 3.0 cable with bracket, L=450mm	· 2/4-port USB 2.0 cable with bracket	· KB/MS cable with bracket	· DVI-D cable with bracket for onboard connector
Ordering Information	· 180° : 30-25046-0100 (for NuPRO-E42/E72/E43, IMB-M43) · 90° : 30-25046-1100 (for NuPRO-E42/E72/E43)	· 2-port (L=400mm): 30-25010-3010 (for NuPRO- A40H/E340, IMB-M42H/M40H/M43H, M-342) · 4-port (L=600mm): 30-25009-3000 (for NuPRO-A40H/E340, IMB-M42H/M40H/M43, M-342) · 4-port (L=600mm) with shielding ground: 30-25009-2000 (for NuPRO-A40H/E340, IMB-M42H/M40H/M43, M-342)	· 2x Mini-DIN PS/2 KB/MS cable with bracket: 30-01019-2010 (for NuPRO-E340/E72/E42/E43/A40H) · 1x USB + 1x Mini-DIN PS/2 KB/MS "combo"cable with bracket: 30-25027-0000 (for NuPRO-E340/A40H)	· 30-01052-2000 (for NuPRO-E340/E72/E42/E43/A40H)

Product Name	DB-Audio2
Product Image	
Description	· High Definition Audio Daughter Board with Linein, Line-out and Mic-in · Realtek ALC262 High Definition Audio codec · Three jacks: line-in, line-out and mic-in
Specification	· 5x2 pin header for cable connection to external audio header on SBC · 4-pin header interface for CD audio output

Note: All specifications are subject to change without further notice.

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