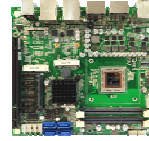




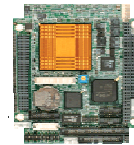
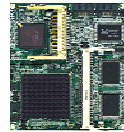
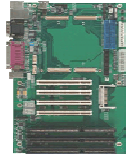
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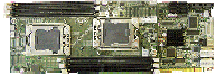
FEATURES / MODELS	MB-62020	MB-60810	MB-60830	MB-80580	MB-80720
Form Factor	COM Express, Pin-out type 2	3.5" SBC	3.5" SBC	3.5" SBC	3.5" SBC
CPU	Intel® Atom™ Z530/Z510	Intel® Atom™ D2550/N2600	Onboard AMD Embedded G-Series SoC	Intel® Atom™ E3845, E3826, E3815	2nd Generation Onboard AMD® Embedded G-Series SOC
CPU Socket	Onboard	Onboard	Onboard	Onboard	
CPU Frequency	1.6GHz & 1.1GHz	1.86 & 1.60 GHz		1.46, 1.46, 1.91 GHz	1.2 or 2.4 GHz
System Chipset	Intel® System Controller Hub US15W	Intel® NM10 chipset	Integrated chipset (SoC)	Integrated chipset (SoC)	Integrated (SoC)
Max. DRAM	1GB	4GB	4GB	8GB	8GB
Memory Chipset Type	200-pin DDRII SO-DIMM, DDR 400/533	DDR3-800/1066, 4 x COM	DDR3 -1600	DDR 3L 1066/1333	
BIOS	AMI® 1MB SPI BIOS	AMI SPI BIOS	Insyde	AMI SPI BIOS	AMI SPI BIOS
Display Chipset	Intel® System Controller Hub US15W	Integrated	AMD Radeon™ 8000 Series graphics Integrated	Integrated	Integrated
Display Interface	LVDS, SDVO	HDMI, VGA, LVDS	HDMI, VGA, 24-bit LVDS	HDMI, VGA, LVDS	
Ethernet Chipset	Intel® 82574L, ASIX AX88772A	2 x Intel® i211 AT GbE	1x Intel® i211 AT Gigabit Ethernet	1x Intel® i210 AT GbE	1x Intel® i211 AT Gigabit Ethernet
Ethernet Interface	1x GbE, 1 x 10/100Mbps	2x GbE RS45	1x GbE LAN	2x GbE LAN	1x RJ45
IDE	2x SATA 1x Ultra ATA, 1x PATA	1 x Half-size Mini-PCIe support mSATA			1x SATA 6.0 Gb/s
SATA	2x SATA 1x Ultra ATA 33/66/100; 1x PATA~100	1x SATA	1x SATA	1x SATA, 6GB/s	1x SATA 6.0 Gb/s
Serial Port	-	1 x RS232/422/485 & 3 x RS232	1 x RS232/422/485 & 3 x RS232	1x RS232/422/485 & 3 x RS232	1 x RS232/422/485 & 3 x RS232
KB/MS Port	-	Yes			
USB Port	6x USB2.0/1.1	6 x USB2.0	2 x USB 3.0 + 4 x USB 2.0	2x USB2.0, 1x USB3.0	2 x USB 3.0 + 4 x USB 2.0
Digital I/O	4-in & 4-out	8-bit programmable	8-bit programmable	8-bit programmable	8-bit programmable
Expansion Interface	2x PCIe X1; 1x PCI	2x Mini-PCIe	1 x Full-Size Mini-PCIe (w/USB, PCIe x 1 Single) 1 x Half-Size Mini-PCIe (w/USB, PCIe and SATA Single)	2x Mini-PCIe	1x Full-Size Mini-PCIe (w/USB, PCIe x 1 Singal); 1x Half-Size Mini-PCIe (w/USB, PCIe and SATA Singal)
Audio	High definition audio interface	HD Audio - onboard pin-header for Line-in, Line-out, Mic-in	HD Audio	Line-in, Line-out, Mic-in	HD Audio
SSD	N/A	mSATA	1 x Half-size Mini-PCIe support mSATA	mSATA	1x Half-size Mini-PCIe support mSATA
Watchdog Timer	1 ~ 255 Sec.	1 ~ 255 Sec.	1 ~ 255 Sec.	1 ~ 255 Sec.	1 ~ 255 Sec.
Power Supply Voltage	plus12V	DC 8V ~ 32V input	DC 8V ~32V	DC 8V ~ 32V input	DC 8V ~32V
Power Management	AT or ATX power, +5V ±5%; +12V ±5%				DC 8V ~32V
Operating Temp.	0°C (32°F) ~ 60°C (140°F)	0°C~60°C (32°F~140°F)	0°C~60°C (32°F~140°F)	-20°C~85°C (-4°F~185°F)	0°C~60°C (32°F~140°F)
Relative Humidity	10% to 90%, Non-condensing	10%~90% (non-condensing)	10%~90% (non-condensing)	10%~90% (non-condensing)	10%~90% (non-condensing)
Dimensions (L x W)	95mm x 95mm (3.8" x 3.8")	146mm x 101mm	146mm x 101mm	146mm x 101mm	146mm x 101mm
EMI Compliance	FCC/CE	FCC/CE	FCC/CE	FCC/CE	FCC/CE



FEATURES / MODELS	MB-73290	MB-73340	MB-83210	MB-73360	MB-73330
Form Factor	Mini-ITX	Mini-ITX	Mini-ITX	Mini-ITX	AMD Embedded R-Series APUs
CPU	Intel® Core™ i7/i5/i3/Celeron Mobile	4th Gen Intel Core i7/i5/i3	AMD RX-427BB, AMD RX-225FB	AMD G-series Quad-core / Dual-core SoC	AMD Embedded R-Series APUs, PGA
CPU Socket	PGA988B	LGA 1150 socket			FS1r2) socket
CPU Frequency			2.7 and 2.2GHz	2.4GHz, 1.2GHz, 1.2GHz	2.3/3.2 GHz; 1.9/3.2.8 GHz; 2.7/3.2 GHz
System Chipset	Intel® QM77 express	Intel @ H81 Express chipset	AMD A77E FCH	Integrated (SoC)	AMD® A75 chipset
Max. DRAM	18GB	16GB	DDR3 up to 8GB,	2 x DDR3 1333/1866 MMHz up to 8GB	2x 204-pin Dual-Channel DDR3 1066/1333/1600 up to 16GB
Memory Chipset Type	2x DDR3/1600 SO-DIMM				
BIOS	AMI SPI BIOS	AMI SPI BIOS	AMI SPI BIOS	AMI SPI BIOS	AMI SPI BIOS
Display Chipset		Integrated (SoC)	AMD A77E FCH	Integrated (SoC)	Integrated support AMD Radeon™ HD Graphic
Display Interface	HDMI, DVI-D, VGA, 24-bit LVDS	HDMI, VGA, DVI-D; 24-bit LVDS	4 x DP++ support 4k resolution	2x HDMI support 4k resolution 1x VGA	3x HDMI ports 1x DP port
Ethernet Chipset	1x Intel® 82579LM GbE 1x Intel® 82583V GbE	1 x Intel I211AT, 1 x Intel I217LM GbE	Intel i211AT	Intel i211AT	
Ethernet Interface	2x RJ45 GbE	2x RJ45 GbE	2x GbE	2x GbE	2x GbE
IDE		2x SATA 6Gb/s 2x SATA 3Gb/s	4x SATA 6.0 Gb/s	2x SATA 6.0 Gb/s	
SATA	4x SATA	4x SATA			
Serial Port	1x RS232/422/485 & 3x RS232	Internal: 1x RS232/422/485, 5x RS232	6x RS232	6x RS232	2x RS232
KB/MS Port	None	Yes	Yes		
USB Port	4 x USB3.0, 6 x USB2.0	6x USB2.0 + 2 x USB3.0	2x USB3.0 & 6x USB2.0	2x USB3.0 & 7x USB2.0	4x USB3.0 + 4x USB2.0 + 1x USB 2.0 to Mini-PCIe Socket
Digital I/O	8-bit programmable	8-bit GPIO interface (pitch: 2.0)	8-bit programmable	8-bit programmable	8-bit programmable
Expansion Interface	PCIe X16, 1x PCIe X1 slots, 2 x Mini-PCIe	1x PCI-Express X16 slot, 1x PCI-Express X1 slot 1x Mini-PCIe socket	Mini-PCIe, PCIe X16,	1 x PCI-Express X16 slot (PCIe X4 signal only) 1 x PCI-Express X1 slot (optional)	1 x PCI-Express X16 slot (Support PCIe X8 Signal only) 1 x Mini-PCIe socket
Audio	Line-in, Line-out, Mic-in	Ext : Line-in/out , Mic-in	HD Audio	HD: Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in
SSD	mSATA	Support SATA SSD	1 x Cfast	2x SATA 6.0 Gb/s	1x CFast socket , 1 x Half-size mSATA
Watchdog Timer	255 levels, 1 ~ 255 Sec.	255 levels, 1 ~ 255 sec	255 Level, 1 ~ 255 Sec.	255 Level, 1 ~ 255 Sec.	1 ~ 255 Sec.
Power Supply Voltage	DC 8V ~ 32V input	ATX power supply	DC 8V ~ 32V input	DC 8V ~ 32V input	DC 8V ~ 32V input
Power Management					
Operating Temp.	0°C~60°C (32°F~140°F)	0°C~60°C (32°F~140°F)	0 ~ 60°C (32°F~140°F)	0 ~ 60°C (32°F~140°F)	0°C~60°C (32°F~140°F)
Relative Humidity	10%~90% (non-condensing)	10%~90% (non-condensing)	10%~90% (non-condensing)	10%~90% (non-condensing)	10%~90% (non-condensing)
Dimensions (L x W)	170mm x 170mm	170mm x 170mm	170mm x 170mm	170mm x 170mm	170mm x 170mm
EMI Compliance	FCC/CE	FCC/CE	FCC/CE	FCC/CE	FCC/CE



FEATURES / MODELS	MB-73210	MB-80080	MB-73030	MB-73350	MB-73310
Form Factor	ETX ATX Eval. Base Board	ETX Module	PC/104+	PC/104+ Module	PC/104+ Module
CPU	n/a	AMD® Geode™ LX800	AMD® Geode™ LX800	AMD® G-series T16R/T40R	Intel® Atom™ D2550/N2600
CPU Socket	n/a	Onboard	Onboard	Onboard	Onboard
CPU Frequency	n/a	-	500MHz	1.0GHz & 615 MHz	1.86 GHz or 1.6 GHz
System Chipset	n/a	AMD® CS5536	AMD® Geode™ CS5536	AMD® A55E chipset	Intel® ICH8M Chipset
Max. DRAM	n/a	1GB	1GB	2GB	2GB
Memory Chipset Type	n/a	1 x 200-pin DDR SO-DIMM socket supports 333/400 MHz memory	200-pin DDR SO-DIMM, DDR 333/400	1 x DDR3 SO-DIMM socket supports DDR3 800/1066 max. up to 2GB w/o ECC registered	DDR-667/800
BIOS	n/a	AMI® 512KB Flash BIOS	Award-Phoenix 512KB	AMI SPI BIOS	AMI® SPI BIOS
Display Chipset	n/a	AMD® Geode™ LX800	AMD® Geode™ LX800		Integrated
Display Interface		VGA, LVDS, TTL	VGA, TTL	VGA, LVDS	VGA, LVDS
Ethernet Chipset	-	Realtek® 8139CL+	2 x Intel® 82551 ER	2x Intel® i211 AT GbE Ethernet	
Ethernet Interface	Intel 82562GT	PCI, ISA	2 x 10/100Mbps	2x GbE	2x GbE
IDE	2x IDE	AC97 Codec	1 x Ultra ATA-66	1x SATA 6.0 Gb/s	1x SATA
SATA	1x	1x	N/A		1x SATA 3Gb/s
Serial Port		2 x RS-232		1x RS232/422/485 & 1 x RS232	1 x RS-232 & 1 x RS-232/422/485
KB/MS Port	Yes		Yes		Yes
USB Port	-	4x USB ports, USB 2.0 compliant	4 x USB 2.0	4x USB2.0	4 x USB ports 2.0 compliant
Digital I/O					
Expansion Interface	ETX Standard	ETX Standard	PC/104+ module	1x PC/104-Plus	
Audio	High-def audio interface Line out, Mic. in, Line in	Realtek® ALC203 AC 97 2.3 compliant codec	AC 97 codec, Mic in & Speaker out (optional)	HD Audio interface	HD Audio interface
SSD		N/A	CompactFlash™ type II	CompactFlash™ socket	1 x CompactFlash™ type II
Watchdog Timer		255 levels timer interval, (1 ~ 255 seconds)	255 levels, 0-255 seconds	1 ~ 255 Sec.	1 ~ 255 Sec.
Power Supply Voltage		VCC (4.75V ~ 5.25V)	DC 5V	DC 5V input	DC 5V input
Power Management			APM 1.1		
Operating Temperature	0°C ~ 60°C (32°F ~ 140°F)	0°C ~ 60°C (32°F ~ 140°F)	0°C (32°F) ~ 60°C (140°F)	0°C~60°C (32°F~140°F)	0°C ~ 60°C (32°F ~ 140°F)
Relative Humidity	10%~90% relative humidity, non-condensing	% ~ 95% relative humidity, non-condensing	10% to 90%, Non-condensing	10%~90% (non-condensing)	10% ~ 85% relative humidity, non-condensing
Dimensions (L x W)	304.8mm (L) x 177.8mm (W);12" (L) x 7" (W)	114mm (L) x 94mm (W)(4.5" L x 3.7" W)	96mm x 116mm (3.8" x 4.6")	96mm x 116mm	96mm (L) x 116mm (W) (3.8" L x 4.6" W)
EMI Compliance	FCC/CE	FCC/CE	FCC/CE	FCC/CE	FCC/CE



FEATURES / MODELS	IP-90830	MB-80100	MB-80560	IP-90550	PL-80510
Form Factor	3/4-Length PCIe Card	PICMG 1.3	PICMG 1.3	Backplane PICMG 1.3	Industrial PC
CPU	Intel® Xeon® E3-1125C or E3-1105C w/ QuickAssist	1x/2x Intel Xeon 5500 and 5600	4th Gen Intel® Core™ i7-4700EQ		Intel® Atom™ N2600/D2550
CPU Socket	BGA	Intel LGA1366 socket	BGA1364	N/A	
CPU Frequency	Up to 2.0 GHz	1.86 - 3.60GHz	2.4 GHz	N/A	1.86GHz/1.6GHz
System Chipset	Intel DH89XX	Intel 5520 chipset	Intel® QM87 Express chipset	N/A	Intel® NM10
Max. DRAM	8 GB	8GB per DIMM Slot (ECC Registered or Non-ECC)	32 GB	N/A	2GB
Memory Chipset Type	Dual Channel DDR3 Memory (up to 8GB) on-board.	Features 6 Non-ECC or ECC Registered DDR3 240 pin slots	DDR3 1600MHz up to 32GB		
BIOS	AMI	AMI	AMI UEFI BIOS		
Display Chipset					
Display Interface					1x HDMI , 1x VGA
Ethernet Chipset	Intel® 82599ES series	Intel 82574L			
Ethernet Interface	Dual 10GbE SFP ports	2x GbE			2 x Intel® PCIe GbE
IDE	mSATA Connector, Optional onboard NAND	6x SATA-II Ports w/ RAID 0/1 from ICH 10R Southbridge	4 x SATA III 6Gb/s (on SBC); 2x SATA II 3Gb/s (to connector-C)		1 x 2.5" SATA HDD space
Serial Port	1x RS232 RJ45 COM port	Dual RS-232 Serial Port Links through onboard headers	1 x RS232/422/485 + 5 x RS232		1 x RS232/422/485 + 3 x RS232, 4x COM
KB/MS Port			Support via pin header		
USB Port	Mini-Type USB Connector on I/O bracket, Dual USB 2.0 Header	4 USB 2.0 Port headers onboard with +2 w/ optional FireWire card is used	2x USB 2.0; 4x USB 2.0 (pinheader); 2x USB 3.0 (pinheader); 4x USB 2.0 (to connector-C)		4 x USB 2.0
Digital I/O	Intel DH89XX	Supports MXM-II interface			
Expansion Interface	PCIe x8 Gen3	Up to 20 Lanes of PCI-Express Gen 2.0	1x PCIe X16 , 1x PCIe X4 or 4x PCIe X1 , 4x PCI	One PCI-X and up to five PCI Express option card slots. PCIe mechanical; 5 PCIe 16x mechanical with a combination of 4x, 8x and 16x electrical	1x Full-size Mini-PCIe w/ USB, PCIe signal 1x Half-size Mini-PCIe w/ USB, PCIe/SATA signal
Audio		Optional HD Audio (Azalia) header for custom HD Audio Codec adapter (IP-90340)	Realtek ALC 886-GR, Front (stereo), Rear (stereo), MIC outputs via pin header		Line-out , Mic-In
SSD					
Watchdog Timer	N/A	Watchdog Timer can generate system reset			1 x Half-size Mini-PCIe socket for mSATA
Power Supply Voltage			12V, 5V, 3.3V, 5VSB		DC 8V ~ 32V Input
Power Management	PCIe link slot on host motherboard and 6-pin 12V PCIe Aux. Optional Dual-Molex to 6-Pin PCIe "Aux" Power Cable,	ATX Power supported through backplane		ATX power	
Operating Temperature	0°C~60°C (32°F~140°F)	0° to 45° C	0°C~60°C (32°F~140°F)	0°C to 50°C	0°C~40°C
Relative Humidity	10% to 95%, Non-condensing		10%~90% (non-condensing)	5% to 90%, non condensing	
Dimensions (L x W)	4.2" x 9.2"	13.330in long, 4.976in wide, 3.42in tall (with tallest heatsink)*	338mm x 126mm	195.26mm x 357.64mm; 7.6875" x 12.875"	240mm x 130mm x 62mm
EMI Compliance	FCC/CE	FCC/CE	FCC/CE	FCC/CE	FCC/CE



FEATURES / MODELS	PL-60830	PL-80580
Form Factor	Industrial PC	Industrial PC
CPU	AMD Embedded G-Series SOC	Intel® Atom E3800 series SoC
CPU Socket	N/A	
CPU Frequency	1.0, 1.65, 1.50, 2.0 GHz	1.46 & 1.91GHz
System Chipset	Integrated (SoC)	Integrated (SoC)
Max. DRAM	1 x SO-DIMM supports max 8GB DDR3	DDR3L-1333, 8GB max.
Memory Chipset Type		
BIOS		AMI SPI BIOS
Display Chipset		
Display Interface	1x VGA; 1x dual channel 24-bit LVDS; 1x HDMI with Optional Chronitel CEC Support	1 x HDMI , 1 x VGA
Ethernet Chipset	Intel® i211 AT	Intel® GbE via PCIe
Ethernet Interface	1X GbE RJ45	2x GbE RJ45
IDE	1 x 2.5" SATA HDD space	1x S ATA 6.0 Gb/s
Serial Port	1 x RS232/422/485 + 2 x RS232	1 x RS232/422/485 & 3 x RS232
KB/MS Port		
USB Port	2 x USB3.0 , 2 x USB2.0	1 x USB3.0 , 2 x USB2.0
Digital I/O		
Expansion Interface	1x Full-size Mini-PCIe w/ USB, PCIe signal 1 x Half-size Mini-PCIe w/ USB, PCIe/SATA signal	1 x Full-size Mini-PCIe (w/ USB, PCIe x 1 Signal) 1 x Half-size Mini-PCIe (PCIe or SATA Signal)
Audio	Line-out, Mic-In	HD Audio
SSD	1 x Half-size Mini-PCIe socket for mSATA	1 x Half-size Mini-PCIe socket for mSATA
Watchdog Timer	1 ~ 255 Sec.	1 ~ 255 Sec.
Power Supply Voltage	DC 8V ~32V	DC 8V ~ 32V Input
Power Management		
Operating Temperature	0°C~40°C	minus 10°C ~ 60°C
Relative Humidity	10%~90% (non-condensing)	10%~90% (non-condensing)
Dimensions (L x W)	202mm x 181mm x 44mm	216mm x 142mm x 37.5mm
EMI Compliance	FCC/CE	FCC/CE