

IMB521R

ATX Motherboard with LGA1151 Socket 9th/8th Gen Intel® Core™ i7/i5/i3, Xeon® E Processor, Intel® C246, ECC DDR4, USB 3.1 Gen2, SATA 3.0, Dual LAN, VGA, DisplayPort++, DVI-D, and HDMI

Features

- LGA1151 socket 9th/8th gen Intel® Core™ i7/i5/i3, Xeon® E, Pentium® or Celeron® processor (Coffee Lake Refresh)
- Four 288-pin DDR4-2666/2400 ECC DIMM for up to 128GB of memory
- DisplayPort++, VGA, DVI-D and HDMI with triple-view supported
- 4 SATA-600 with RAID 0/1/5/10
- 2 USB 3.1 Gen2 and four USB 3.1 Gen1
- TPM 2.0 supported (optional)



Core System

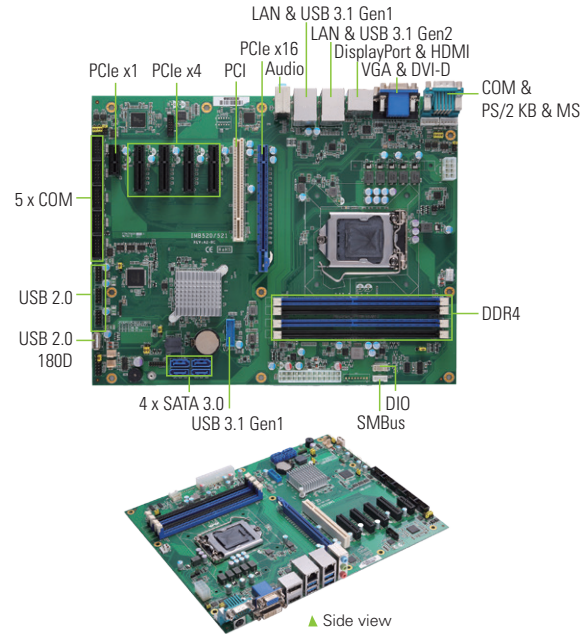
CPU	LGA1151 socket 9th/8th gen Intel® Core™ i7/i5/i3, Xeon® E, Pentium® or Celeron® processor (up to 95W)
System Memory	4 x 288-pin DDR4-2666/2400 ECC DIMM, up to 128GB (Intel® Core™ i7/i5 only support non-ECC)
Chipset	Intel® C246
BIOS	AMI BIOS
Watchdog Timer	255 levels, 1 to 255 sec.
Expansion Interface	1 x PCIe x16 slot 4 x PCIe x4 slot 1 x PCIe x1 slot 1 x PCI
Battery	Lithium 3 V/ 220 mAh
Dimensions	305 x 244 mm
Board Thickness	1.6 mm
Operating Temperature	0°C to +60°C (+32°F to +140°F)
Humidity	10% to 95% relative humidity, non-condensing

I/O

SATA	4 x SATA-600 with RAID 0/1/5/10
Hardware Monitoring	Detect CPU/system temperature, voltage and supports Smart fan control
Ethernet	1 x 10/100/1000 Mbps Ethernet with Intel® i219-LM; supports Wake-on-LAN, PXE Boot ROM, iAMT 1 x 10/100/1000 Mbps Ethernet with Intel® i211-AT; supports Wake-on-LAN, PXE Boot ROM
Audio	HD Codec audio as MIC-in/Line-in/Line-out with Realtek ALC888
USB	2 x USB 3.1 Gen2 (rear I/O) 4 x USB 3.1 Gen1 (rear I/O, internal box header) 7 x USB 2.0 (pin header, 180D type A)
Serial	4 x RS-232 (Internal box header) 2 x RS-232/422/485 (COM 1: rear, COM 2: internal box header)
PS/2 Combo Port	1 x PS/2 keyboard and mouse
TPM	TPM 2.0 (optional)
SMBus	Yes
Digital I/O	8-channel programmable

Display

Graphic	Intel® HD Graphic
Memory Size	Share system memory
Display Interface	1 x VGA 1 x DVI-D 1 x HDMI 1 x DisplayPort++



Ordering Information

Standard

IMB521R (P/N: E38F521103)	ATX motherboard with LGA1151 socket 9th/8th gen Intel® Core™ i7/i5/i3, Xeon® E, Pentium® or Celeron® processor, Intel® C246, USB 3.1 Gen2, SATA 3.0, 2 GbE LAN, VGA, DisplayPort++, DVI-D, and HDMI
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Optional

5938A808010E	2 x USB 2.0 cable with bracket, P=2.54 mm, L=190 mm
5938A808020E	2 x USB 2.0 cable with bracket, P=2.54 mm, L=400 mm
5948C122800E	2 x USB 3.1 Gen1 cable with bracket, L=400 mm
59380000290E	PS/2 keyboard & mouse cable with bracket
593826A0000E	SATA signal cable/red, L=500 mm
59384500100E	Audio cable with bracket, P=2.0 mm, L=450 mm
59380402010E	1 x COM port cable with bracket, P=2.54 mm, L=300 mm
59380703000E	2 x COM port cable with bracket, P=2.54 mm, L=300 mm
83935151000E	TPM 2.0 module (AX93515)
5076E510000E	CPU heatsink for 1U chassis (AX61135TM)
50761222000E	CPU cooler for 2U, 4U, and wall mount chassis

Processor List

CPU	Speed	Cache	Cores	TDP
Intel® Core™ i9-9900K Processor	3.6 GHz	16 MB	8	95 W
Intel® Core™ i7-9700TE Processor	1.8 GHz	12 MB	8	35 W
Intel® Core™ i7-8700K Processor	3.7 GHz	12 MB	6	95 W
Intel® Core™ i7-8700 Processor	3.2 GHz	12 MB	6	65 W
Intel® Core™ i7-8700T Processor	2.4 GHz	12 MB	6	65 W
Intel® Core™ i5-9500E Processor	3.0 GHz	9 MB	6	65 W
Intel® Core™ i5-9400 Processor	2.9 GHz	9 MB	6	65 W
Intel® Core™ i5-9500TE Processor	2.2 GHz	9 MB	6	35 W
Intel® Core™ i5-8400 Processor	2.8 GHz	9 MB	6	65 W
Intel® Core™ i5-8400T Processor	2.1 GHz	9 MB	6	35 W
Intel® Core™ i3-9100 Processor	3.6 GHz	6 MB	4	65 W
Intel® Core™ i3-9100E Processor	3.1 GHz	6 MB	4	65 W
Intel® Core™ i3-9100TE Processor	2.2 GHz	6 MB	4	35 W
Intel® Core™ i3-8100 Processor	3.6 GHz	6 MB	4	65 W
Intel® Core™ i3-8100T Processor	3.1 GHz	6 MB	4	35 W
Intel® Xeon® E-2176G Processor	3.7 GHz	12 MB	6	80 W
Intel® Xeon® E-2278GE Processor	3.3 GHz	16 MB	8	80 W
Intel® Pentium® Gold G5400T Processor	3.1 GHz	4 MB	2	35 W
Intel® Celeron® G4900T Processor	2.9 GHz	2 MB	2	35 W