



## MS-98A9

### MS-98A9 Industrial ATX Motherboard



### Features

- LGA 1155
- 1 ISA
- 5 PCI
- 1 PCIe x4
- 1 PCIe x16
- LPT and Serial
- Dual Gigabit LAN

### MS-98A9 Industrial Motherboard

The MS-98A9 industrial motherboard is a long-life ATX motherboard with FIVE 32-bit PCI slots, 1 ISA slot, and 1 each PCIe x16 and PCIe x4 slots. This motherboard is based on the Ivy Bridge architecture, accepting Generation 3 LGA 1155 Intel processors. The well-established Intel Q77 Express chipset allows for features such as Intel Rapid Storage Technology and Intel vPro.

### On-Board VGA, DVI-D, HD Audio, Serial ATA, Dual LANs

The MS-98A9 industrial motherboard has multiple on-board features commonly sought after on an industrial board. VGA and DVI-D to take advantage of Intel HD graphics, HD audio, and dual gigabit LANs are all incorporated right on the rear panel.

- Supports Generation 3 Core i3, i5 & i7 Processors
- Intel Q77 Chipset
- 4 x DDR3 1600 MHz Memory Sockets up to 32 GB RAM
- Dual Video, VGA AND DVI-D ports
- 5 SATA Controllers (2 x SATA 3, 3 x SATA 2)
- On-board RAID 0, 1, 5, 10
- Dual Gigabit LANs
- 4 x USB 3.0 (rear), 8 x USB 2.0 (2 rear, 6 via pin headers)
- 1 x PCIe x16, 1 x PCIe x4, 5 x PCI slots, 1 x ISA slot (No DMA support for ISA)
- 6 x COM Ports (5 x RS-232, 1 x RS232/422/485), 1 x LPT, PS/2

## Technical Specifications

CPU Socket Type	LGA 1155
Chipset	Intel Q77 Express
Channel Supported	Dual Channel
CPU Type	Core i7 / i5 / i3 / Pentium / Celeron
Number of Memory Slots	4x240pin
Memory Standard	1600 / 1333 / 1066 DDR3 (non-ECC)
Maximum Memory Supported	32GB
PCIe 2.0 x16	1
PCIe 2.0 x4	1
PCI	5
Mini-PCIe	1
ISA	1 (no DMA)
SATA 3.0	2
SATA 2.0	3
mSATA	1
SATA RAID	0 / 1 / 5 / 10
Graphic Controller	Intel HD Graphics
VGA	1
DVI-D	1
DisplayPort	1
Display Mode	2x independent (SNB processor), 3x independent (IVB processor)
Audio Controller	Realtek ALC887 HD Audio Codec
Ethernet Controller	1x Intel 82579LM GbE LAN PHY, 1x Intel 82583V GbE LAN
PS/2	1x Keyboard/Mouse
USB 3.0	4x rear
USB 2.0	2x rear, 6x internal
Serial	6x COM (COM1 rear, COM2-6 internal)
Serial Types	COM1-2 (RS-232/422/485 0V/5V/12V), COM3-6 (RS-232 0V/5V/12V)
Parallel	1
Watchdog Timer	255-level
TPM	1x 2*7-pin header
Super I/O Controller	Fintek F81866
GPIO	8-bits (4x GPI, 4x GPO)
Smart Fan	Yes
Power Supply	ATX 24-pin, 12V 4-pin
Operating Temperature	0-60 C
Operating Humidity	10-90% non-condensing
Storage Temperature	-20-80 C
Storage Humidity	10-90% non-condensing
Regulatory Compliance	FCC, CE, C-Tick, VCCI, BSMI