# IMB-981

Advansus

## Intel® Q87 with Intel Core™ i7/ i5/ i3 ATX Motherboard

ATX Motherboard



## Features

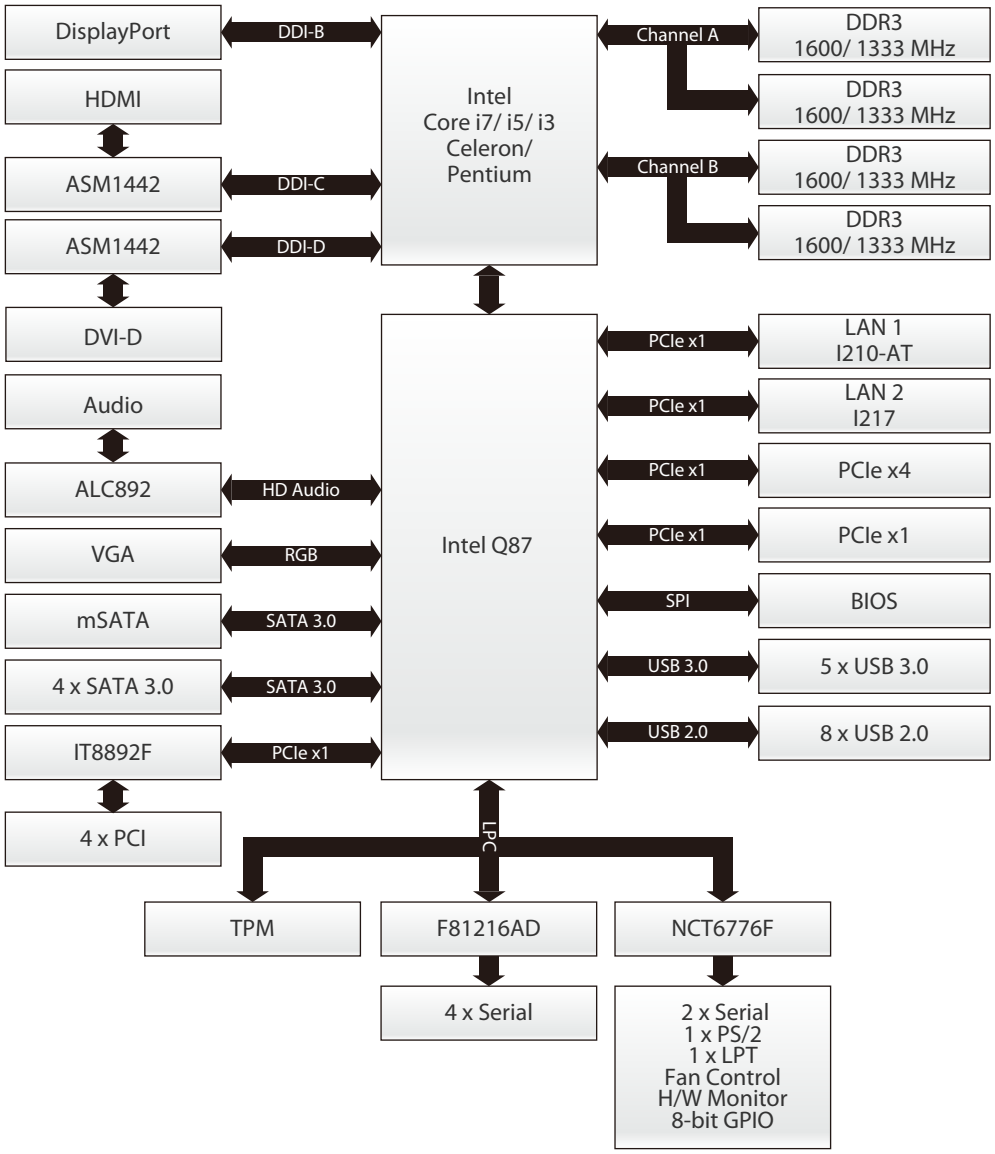
- Supports the 4th Generation Intel Core i7/ i5/ i3, Celeron® and Pentium® Processor family
- Supports triple/ dual independent display configuration by multiple display interface : VGA, HDMI, DVI-D and DisplayPort
- Supports DirectX 11.1, OpenGL 4.x, OpenCL 1.2 and outstanding 3D graphics performance
- Enhanced graphics technology supports up to 4K2K Ultra HD resolution
- Supports dual LANs and Intel AMT 9.0 proactive security and manageability function
- Supports 3 PCIe and 4 PCI expansion slots

## Specifications

| Processor | |
|---|---|
| CPU | Intel Core i7/ i5/ i3/ Celeron/ Pentium processor |
| Socket | LGA1150 |
| Max. Speed | Up to 3.9GHz |
| Cache | Up to 8MB |
| BIOS | AMI EFI 64Mbit SPI |
| **Memory** | |
| Technology | Dual channel DDR3 1600/ 1333 MHz SDRAM (Non-ECC) |
| Max. Capacity | 8GB per socket |
| Socket | 4 x 240-pin DIMM |
| **Graphics** | |
| Controller | Integrated Intel HD Graphics engine |
| VRAM | Shared memory up to 512MB |
| VGA | Up to SXGA 1920 x 1080 (@60Hz) |
| DVI-D | Up to 1920 x 1200 (@60Hz) |
| HDMI | Up to 4096 x 2304 (@24Hz) |
| DisplayPort | Up to 3200 x 2000 (@60Hz) |
| Dual Display | VGA+HDMI, VGA+DVI-D, VGA+DisplayPort, HDMI+DVI-D, HDMI+DisplayPort, DVI-D+DisplayPort |
| Triple Display | VGA+HDMI+DVI-D, VGA+HDMI+DisplayPort, HDMI+DVI-D+DisplayPort, VGA+DVI-D+DisplayPort |
| **Ethernet** | |
| Interface | 10/100/1000 Mbps |
| LAN 1 Controller | Intel I210-AT GbE LAN w/ iAMT 9.0 |
| LAN 2 Controller | Intel I217 GbE LAN |
| Connector | 2 x RJ-45 |
| **Expansion Slot** | |
| PCIe x1 (Gen2) | 1 (500MB/s per direction) |
| PCIe x4 (Gen2) | 1 (2GB/s per direction) |
| PCIe x16 (Gen3) | 1 (16GB/s per direction) |
| PCI | 4 (32-bit/ 33MHz) |
| **Storage** | |
| mSATA | 1 (600MB/s per port) |
| SATA 3.0 | 4 (600MB/s per port) |
| **Audio** | |
| Codec | Realtek ALC892 |
| Connector | Line-in, Line-out, Mic-in |

| Rear I/O Connector | |
|---|---|
| VGA | 1 |
| DVI-D | 1 |
| HDMI | 1 |
| DisplayPort | 1 |
| RJ-45 | 2 |
| USB 3.0 | 4 |
| Audio | 3 (Line-in, Line-out, Mic-in) |
| PS/2 | 2 |
| **Internal Connector** | |
| USB 2.0 | 4 for 8 x USB 2.0 port |
| USB 3.0 | 1 |
| Serial | 5 x RS-232, 1 x RS-232/ RS-422/ RS-485 |
| SATA 3.0 | 4 |
| mSATA | 1 |
| TPM | 1 |
| CPU Fan | 1 |
| System Fan | 1 |
| Chassis Fan | 1 |
| Front Audio | 1 |
| Front Panel | 1 |
| S/PDIF Out | 1 |
| GPIO | 1 (8-bit) |
| PS/2 | 1 |
| LPT | 1 |
| **Watchdog Timer** | |
| Output | System reset |
| Interval | Programmable 1-255 sec/min |
| **Power** | |
| Power Requirement | +12V (22A) +5V (20A) +3.3V (12A) -12V (0.1A) 5VSB (2A) |
| Power Type | ATX Mode (supports AT Mode) |
| Power Connector | 1 x 24-pin ATX, 1 x 4-pin ATX 12V |
| **Environment** | |
| Operation Temperature | 0 ~ 60° C (32 ~ 140° F) |
| Non-Operation Temperature | -40 ~ 85° C (-40 ~ 185° F) |
| Operation Humidity | 0% ~ 90% relative humidity, non-condensing |
| **Physical Characteristics** | |
| Dimensions | 304.8mm x 244mm (12" x 9.6") |
| Weight | 0.65 Kg |

## Block Diagram




## Ordering Information

| Part Number | Chipset | VGA | DVI-D | HDMI | DisplayPort | LAN | USB | Serial |
|---|---|---|---|---|---|---|---|---|
| IMB-98100-AJA1E | Q87 | 1 | 1 | 1 | 1 | 2 | 13 | 6 |

## Packing List

| Description | Qty |
|---|---|
| I/O shield | 1 |
| Startup manual | 1 (per 20 units) |
| Driver CD | 1 (per 20 units) |
| USB 3.0 cable, 30cm | 1 |

## Optional Accessories

| Part Number | Description |
|---|---|
| 1700020939-01 | SATA 3.0 cable, 46cm, 90degree |
| 1700020946-01 | SATA 3.0 cable, 46cm, 180degree |
| 1700020942-01 | Serial cable, 26cm |

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