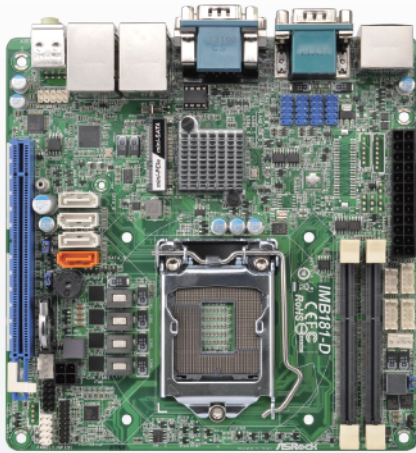


IMB-181-D

Mini-ITX Motherboard



Spotlight Features

- Socket LGA1150 for Intel Core i7/i5/i3/Celeron (Haswell)
- Intel® Q87 Chipset
- Integrated Intel® HD Graphics Built-in Visuals
- Supports DDR3 1600MHz, 2 x SO-DIMM, up to 16GB system memory
- 1 x VGA, 1 x HDMI, 1 x 24 bit Dual Channel LVDS/DisplayPort (181-L/181-D)
- 4 x USB 3.0, 8 x USB 2.0, 4 x SATA3
- 1 x mini-PCle, 1 x PCIe (x16),
- Gigabit LAN : 1 x Intel I217LM (with v-Pro support), 1 x Intel I210
- 1 x TPM Header

Specifications

Processor System	
Dimension	Mini-ITX (6.7-in x 6.7-in)
CPU	Socket LGA1150 for Intel Core i7/i5/i3/Celeron (Haswell)
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L3 Cache	(By CPU)
Chipset	Q87
BIOS	UEFI

Expansion Slot	
PCI	0
Mini-PCle	1 (full size) shared with m-SATA
mSATA	1 (shared with mini-PCle)
PCIe	1 (x16)
CFAST Card Socket	0

Memory	
Technology	Dual Channel DDR3 1066/1333/1600 MHz SDRAM
Max.	16GB
Socket	2 x SO-DIMM

Graphics	
Controller	Intel HD Graphics (By CPU)
VRAM	Shared Memory
VGA	Supports max resolution 2048 x 1536
LVDS	No
HDMI	Supports HDMI 1.4a, max resolution 1920x1200
DVI	Yes
Display Port	Supports max resolution 2560 x 1600
Multi Display	Yes (Three Display)

Ethernet	
Interface	10/100/1000 Mbps
Controller	GbE LAN1: Intel I210, LAN2: Intel I217LM (with v-Pro support)
Connector	2 x RJ-45

SATA	
Max Data Transfer Rate	SATA2 (3.0Gb/s), SATA3 (6.0Gb/s), Supports RAID 0/1/5/10

Rear I/O	
VGA	0
HDMI	1
DVI-I/D	1 (DVI-I)
Display Port	1
Ethernet	2
USB	4 x USB 3.0 compliant
Audio	Mic-in Line- out
Serial	3 (RS-232/422/485)
PS/2	0

Internal Connector	
USB	8 (4 x USB Header 2.54mm pitch)
LVDS/Inverter	0
VGA	0
Serial	4 (RS-232)
SATA	4 x SATA3 (6.0Gb/s), Support RAID 0/1/5/10
m-SATA	1 (shared)
Mini-PCle	1 (shared)
Parallel	0
IrDA	0
GPIO	4 x GPI + 4 x GPO
SATA PWR Output Con	0
Speaker Header	1

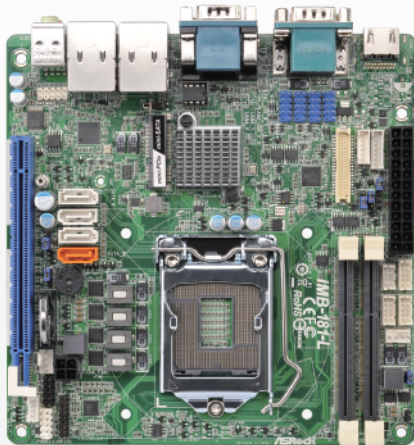
Watchdog Timer	
Output	Output from super I/O to drag RESETCON#
Interval	256 Segments, 0,1,2...255 Sec/Min

Power Requirements	
Input PWR	ATX PWR (4 + 24)
Power On	AT/ATX Supported AT : Directly PWR on as Power input ready ATX: Press Button to PWR on after Power input ready

Environment	
Operating Temperature	0°C – 60°C

IMB-181-L

Mini-ITX Motherboard



Spotlight Features

- Socket LGA1150 for Intel Core i7/i5/i3/Celeron (Haswell)
- Intel® Q87 Chipset
- Integrated Intel® HD Graphics Built-in Visuals
- Supports DDR3 1600MHz, 2 x SO-DIMM, up to 16GB system memory
- 1 x VGA, 1 x HDMI, 1 x 24 bit Dual Channel LVDS/DisplayPort (181-L/181-D)
- 4 x USB 3.0, 8 x USB 2.0, 4 x SATA3
- 1 x mini-PCIe, 1 x PCIe (x16),
- Gigabit LAN : 1 x Intel I217LM (with v-Pro support), 1 x Intel I210
- 1 x TPM Header

Specifications

Processor System	
Dimension	Mini-ITX (6.7-in x 6.7-in)
CPU	Socket LGA1150 for Intel Core i7/i5/i3/Celeron (Haswell)
Core Number	(By CPU, Max 4)
Max Speed	(By CPU)
L3 Cache	(By CPU)
Chipset	Q87
BIOS	UEFI

Expansion Slot	
PCI	0
Mini-PCIe	1 (full size) shared with m-SATA
mSATA	1 (shared with mini-PCIe)
PCIe	1 (x16)
CFAST Card Socket	0

Memory	
Technology	Dual Channel DDR3 1066/1333/1600 MHz SDRAM
Max.	16GB
Socket	2 x SO-DIMM

Graphics	
Controller	Intel HD Graphics (By CPU)
VRAM	Shared Memory
VGA	Supports max resolution 2048 x 1536
LVDS	1
HDMI	Supports HDMI 1.4a, max resolution 1920x1200
DVI	No
Display Port	No
Multi Display	Yes (Three Display)

Ethernet	
Interface	10/100/1000 Mbps
Controller	GbE LAN1: Intel I210, LAN2: Intel I217LM (with v-Pro support)
Connector	2 x RJ-45

SATA	
Max Data Transfer Rate	SATA2 (3.0Gb/s), SATA3 (6.0Gb/s), Supports RAID 0/1/5/10

Rear I/O	
VGA	1
HDMI	1
DVI-I/D	0
Display Port	0
Ethernet	2
USB	4 x USB 3.0 compliant
Audio	Mic-in Line- out
Serial	3 (RS-232/422/485)
PS/2	0

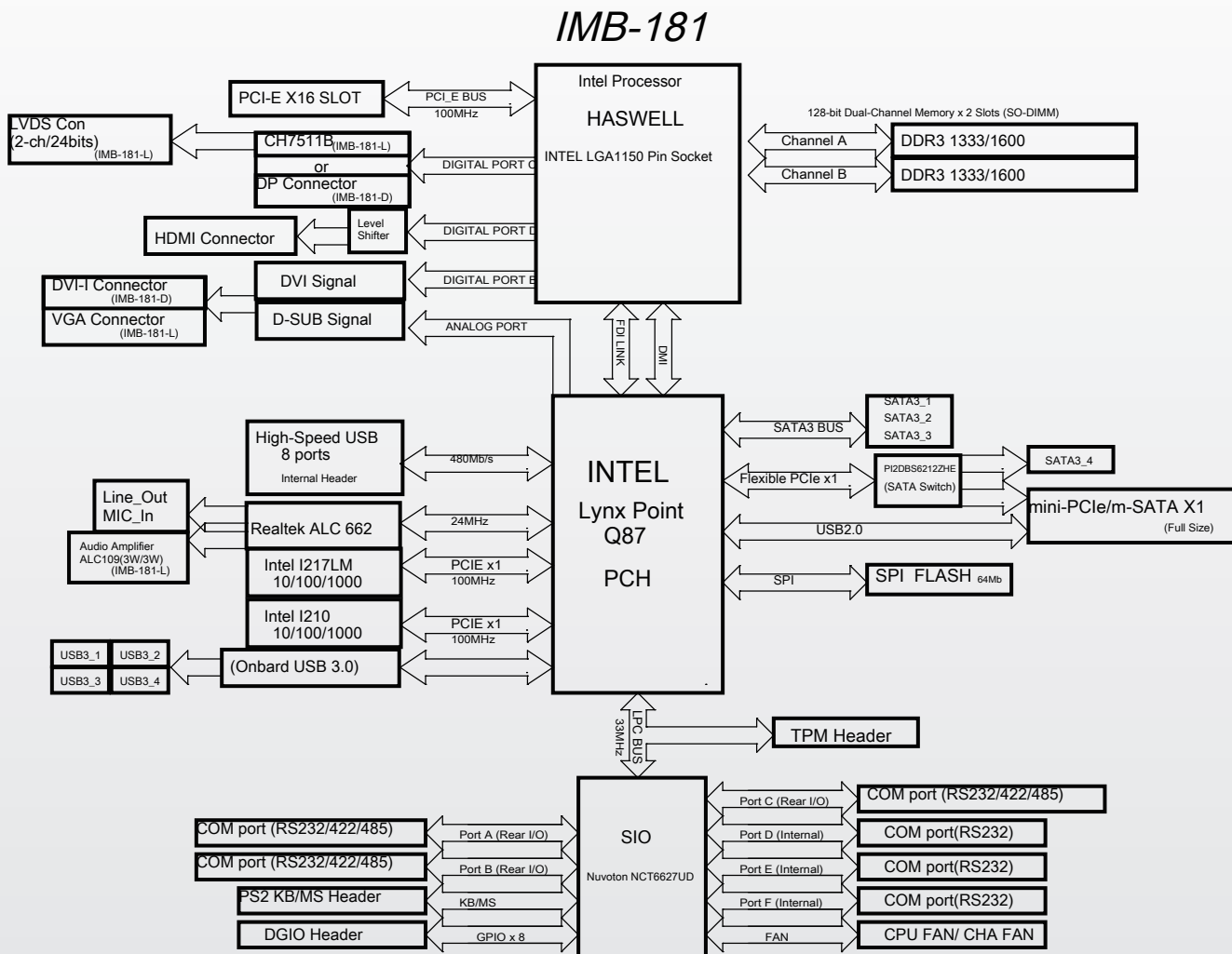
Internal Connector	
USB	8 (4 x USB Header 2.54mm pitch)
LVDS/Inverter	24 bit dual channel LVDS
VGA	0
Serial	4 (RS-232)
SATA	4 x SATA3 (6.0Gb/s), Support RAID 0/1/5/10
m-SATA	1 (shared)
Mini-PCIe	1 (shared)
Parallel	0
IrDA	0
GPIO	4 x GPI + 4 x GPO
SATA PWR Output Con	0
Speaker Header	1

Watchdog Timer	
Output	Output from super I/O to drag RESETCON#
Interval	256 Segments, 0,1,2...255 Sec/Min

Power Requirements	
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Environment	
Operating Temperature	0°C – 60°C

Board Diagram



IPC Motherboards Focused Markets

ASRock IMB solutions can be widely used for industrial applications, such as process control, data acquisition, and so on. IMB-PCs are typically panel mounted and often incorporate touch screens for user interaction.

