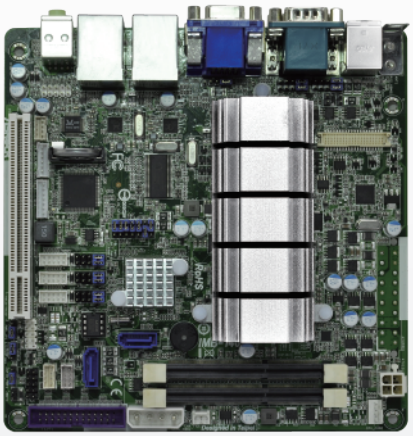
IMB-140

Mini-ITX Motherboard





Spotlight Features

- Intel® Dual-Core Atom™ CedarViewProcessor D2550/N2600/N2800
- Intel® NM10 Express Chipset
- Integrated Intel® PowerVR SGX545, DirectX 9.0, Pixel Shader 3.0
- Supports DDR3 1066MHz, 2 x SO-DIMM, up to 4GB system memory
- 1 x D-Sub, 1 x HDMI, 1 x Dual Channel 24-bit LVDS
- 7 x USB 2.0, 2 x SATA2
- 1 x PCI, 1 x mini-PCIe
- Gigabit LAN : 2 x Realtek RTL8111E-VL
- 1 x CF Socket

Specifications

Processor System	
Dimension	Mini-ITX (6.7-in x 6.7-in)
CPU	Intel® Dual-Core Atom™ CedarView Processor D2550/ N2600/N2800 Supports Hyper-Threading Technology
Core Number	2
Max Speed	D2550/N2800: 1.86 GHz, N2600: 1.6GHz
L3 Cache	N/A
Chipset	NM10
BIOS	UEFI

Expansion Slot	
PCI	1
Mini-PCIE	1 (Full Size)
mSATA	0
PCIe x16 (Gen2)	0
CFast Card Socket	0

Memory	
Technology	Single Channel DDR3 800/1066 MHz SDRAM
Max.	D2550/N2800: 4GB, N2600: 2GB
Socket	D2550/N2800: 2 x SO-DIMM, N2600: 1 x SO-DIMM

Graphics	
Controller	Intel® PowerVR SGX545, Support Directx9 compliant Pixel Shader v3.0 and OGL 3.0
VRAM	Shared Memory
VGA	Supports max. resolution 1920 x 1200
LVDS	Dual channel 24-bit, max resolution 1920x1200
HDMI	Supports HDMI 1.3a, max resolution 1920x1200
DVI	No
Display Port	No
Multi Display	Yes

Ethernet	
Interface	10/100/1000 Mbps
Controller	GbE LAN: 2 x Realtek RTL8111E-VL
Connector	2 x RJ-45

SATA	
Max Data Transfer Rate	SATA2 (3.0Gb/s)

Rear I/O	
VGA	1
HDMI	1
DVI-I/D	0
Display Port	0
Ethernet	2
USB	4 (USB 2.0 compliant)
Audio	2 (Mic-in, Line-out)
Serial	1 (RS-232/422/485) + 1 (RS232)+ 1 (RJ45 type)
PS/2	2 (1 x keyboard and 1 x mouse)

Internal Connector	
USB	3 (USB 2.0 compliant)
LVDS/Inverter	1/1
VGA	0
Serial	3 (RS-232)
SATA	2 x SATA2 (3.0Gb/s)
m-SATA	0
Mini-PCIE	1
Parallel	1
IrDA	0
GPIO	4 x GPI + 4 x GPO
SATA PWR Output Con	1
Speaker Header	1

Watchdog Timer	
Output	From Super I/O to drag RESETCON#
Interval	256 segments, 0,1,2...255sec/min

Power Requirements	
Input PWR	12V DC-In (4-pin ATX PWR Con)
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

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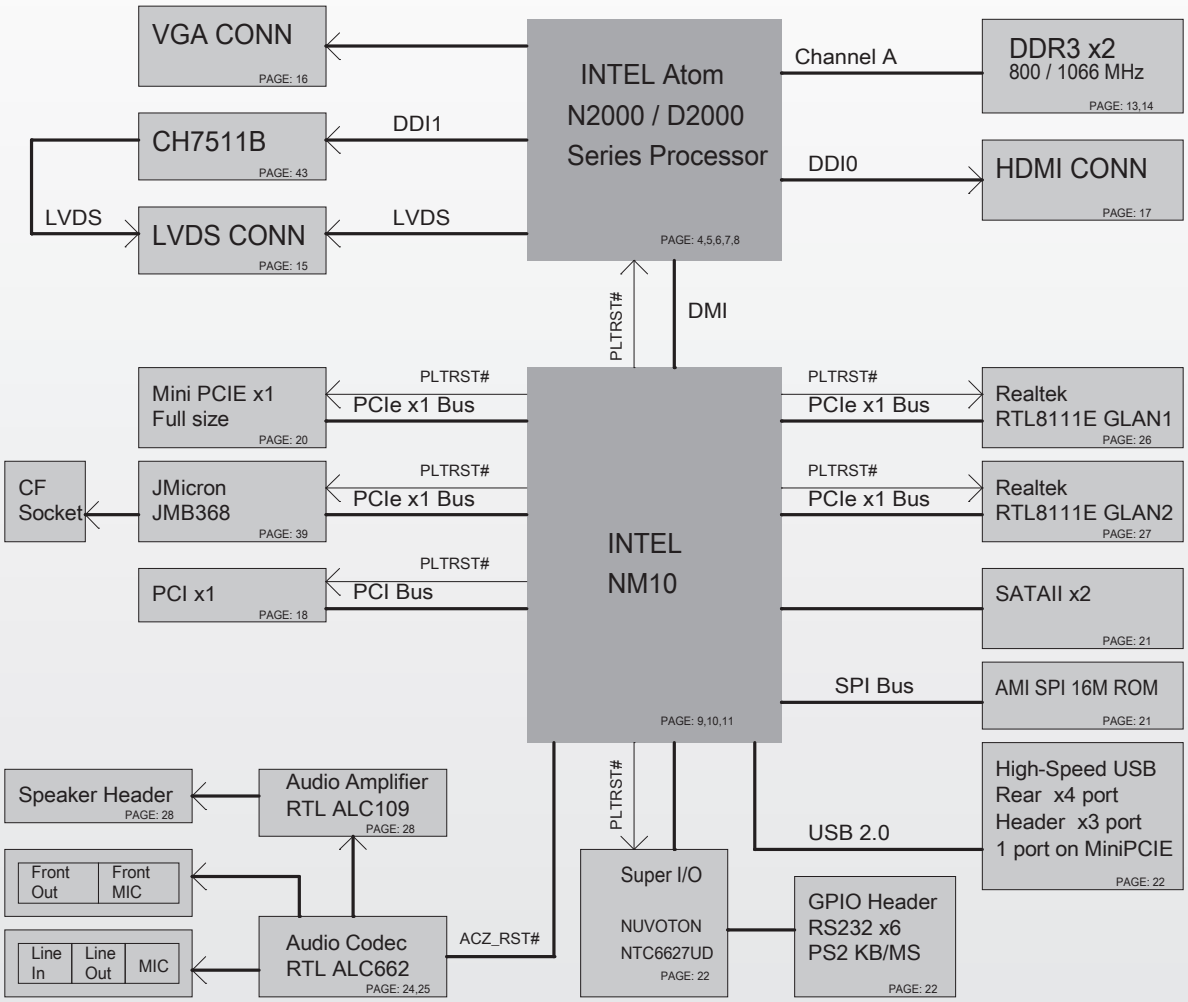
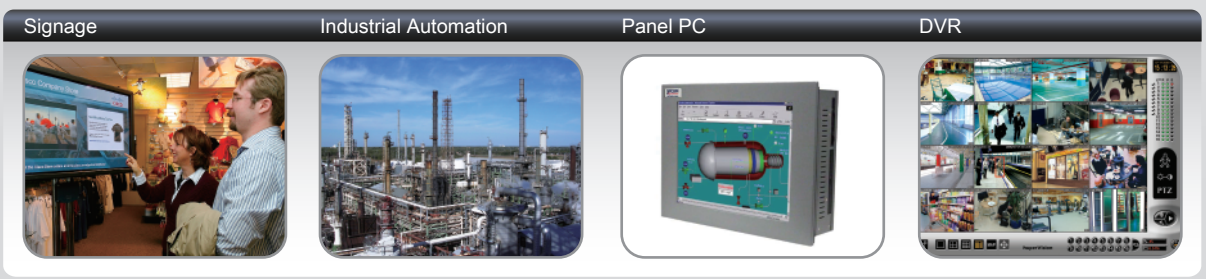
Board Diagram



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.





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