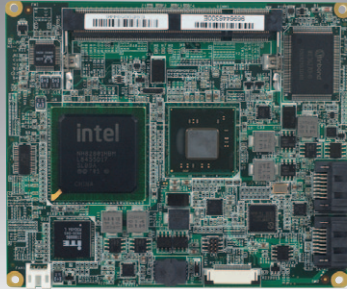


SOM-4463 A2

Intel® Atom™ Processor
N450/D510 ETX CPU Module



Features

- Embedded Intel® Atom™ Processor N450 1.66 GHz single core/ D510 1.66 GHz dual-core + ICH8M
- Intel Gen 3.5 DX9, MPEG2 Decode in HW, multiple display: VGA, 18-bit LVDS
- Supports DDR2 SODIMM up to 2 GB
- Supports 4 PCI, 2 SATAII, 4 USB 2.0, ISA
- Supports embedded software APIs and Utilities

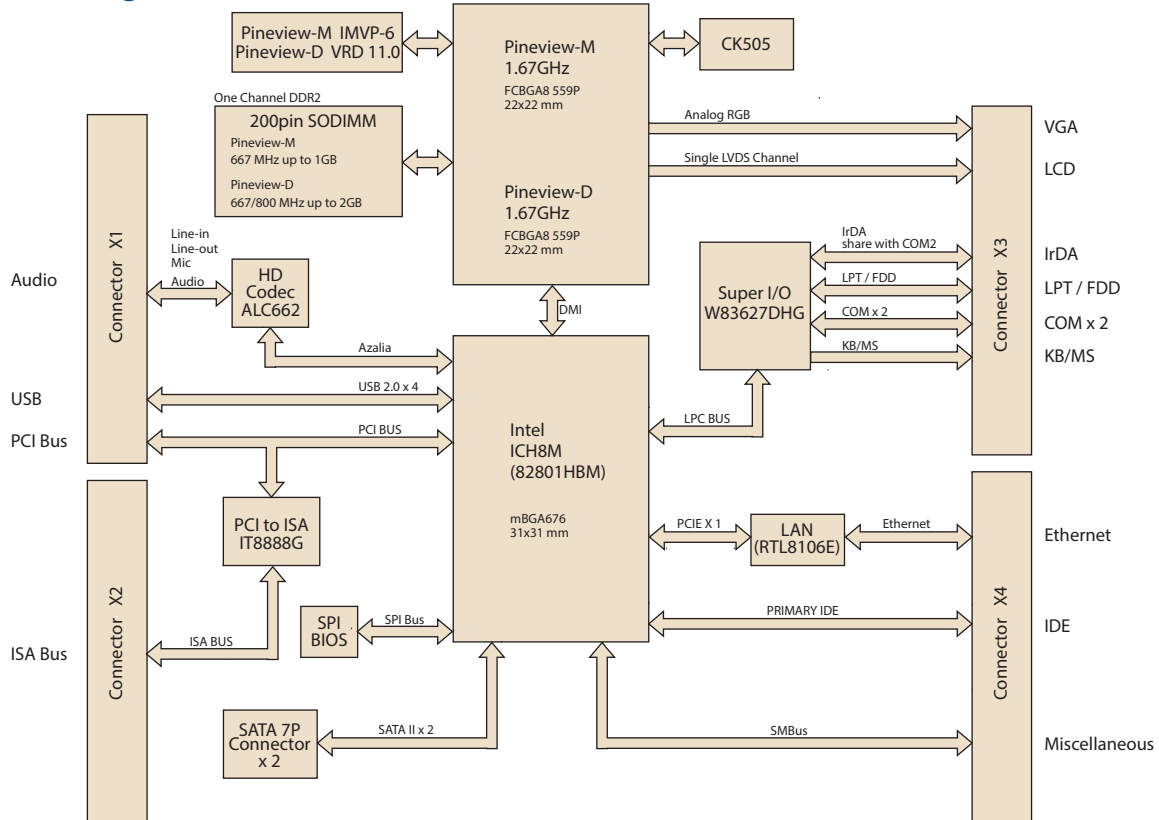
Software APIs: Watchdog I2C SMBus H/W Monitor Brightness GPIO Backlight On/Off

Utilities: BIOS flash Monitoring Flash Lock Embedded Security ID

Specifications

Form Factor		ETX 3.0
Processor System	CPU	Intel Atom N450 1.66 GHz (single core), 512 KB L2 Cache Intel Atom D510 1.66 GHz (dual core), 1 MB L2 Cache
	System Chipset	ICH8M
	BIOS	AMI 16 Mbit Flash BIOS
Memory	Technology	DDR2 667 MHz
	Max. Capacity	Up to 2 GB
	Socket	1 x 200-pin SODIMM sockets
Display	Chipset	Intel Atom N450 or Intel Atom D510
	Graphic Engine	Intel Gen 3.5 DX9, MPEG2 Decode in HW
	LVDS	18-bit single channel LVDS
	VGA	Intel Atom N450 Single Core up to 1400 x 1050 (SXGA) Intel Atom D510 Dual Core up to 2048 x 1536
	DVI	-
	TV Out	-
	SDVO	-
	Dual Display	CRT + LVDS
Ethernet	Chipset	Realtek 8106E 10/100 Mbps Ethernet
	Speed	10/100 Mbps
WatchDog Timer		256 level timer interval, from 0 to 255 sec or min setup by software, jumperless selection, generates system reset
Expansion		ISA, 4 PCI masters
I/O	PATA	1 x EIDE (UDMA 100)
	SATA	2 x SATAII (300 MB/s)
	USB	4 x USB 2.0
	Audio	ALC662 Audio
	GPIO	1-bit GPIO, 2-bit GPE
	COM	2 x COM Ports
	FDD/LPT	1 x FDD or LPT
Power	Power Type	ATX, AT
	Power Supply Voltage	+5 V (+5VSB is required for ATX power scheme)
	Power Consumption (Idle)	To be updated
	Power Consumption (Max, test with BurnIn Test)	To be updated
Environment	Operating Temperature	0 ~ 60° C (32 ~ 140° F)
	Operating Humidity	0% ~ 90% relative humidity, non-condensing
Mechanical	Dimensions	95 x 114 mm (3.74" x 4.5")

Board Diagram



Ordering Information

Part No.	CPU	L2 Cache	Chipset	LVDS	VGA	10/100 LAN	HD Audio	PCI	USB 2.0	SATA	SMBus	ATX Power	AT Power	Thermal Solution	Operating Temp.
SOM-4463N-S6A2E	Atom N450	512 KB	ICH8M	18-bit	Yes	1	Yes	4	4	2 x SATAII	1	Yes	Yes	Passive	0 ~ 60° C
SOM-4463D-S6A2E	Atom D510	1 MB	ICH8M	18-bit	Yes	1	Yes	4	4	2 x SATAII	1	Yes	Yes	Active	0 ~ 60° C

Development Board

Part No.	Description
SOM-DB4700-00A1E	Development Board for ETX Rev.A1

Optional Accessories

Part No.	Description
1960012091T00S	Semi-Heatsink 114 x 96 x 15 mm
1750001980	Semi-Cooler 114 x 96 x 15 mm

Packing List

Part No.	Description	Quantity
-	SOM-4463 CPU Module	1
-	Utility CD	1
1960047537T001	Heatspreader	1
1960049773T011	Heatspreader for wide temperature product	1 (For Extend-temperature SKU)

Embedded OS

OS	Part No.	Description