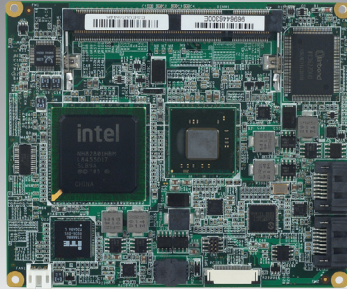


# SOM-4463 A2

## 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
- IPC
- SMBus
- H/W Monitor
- Brightness
- GPIO
- Backlight On/Off

**Utilities:**

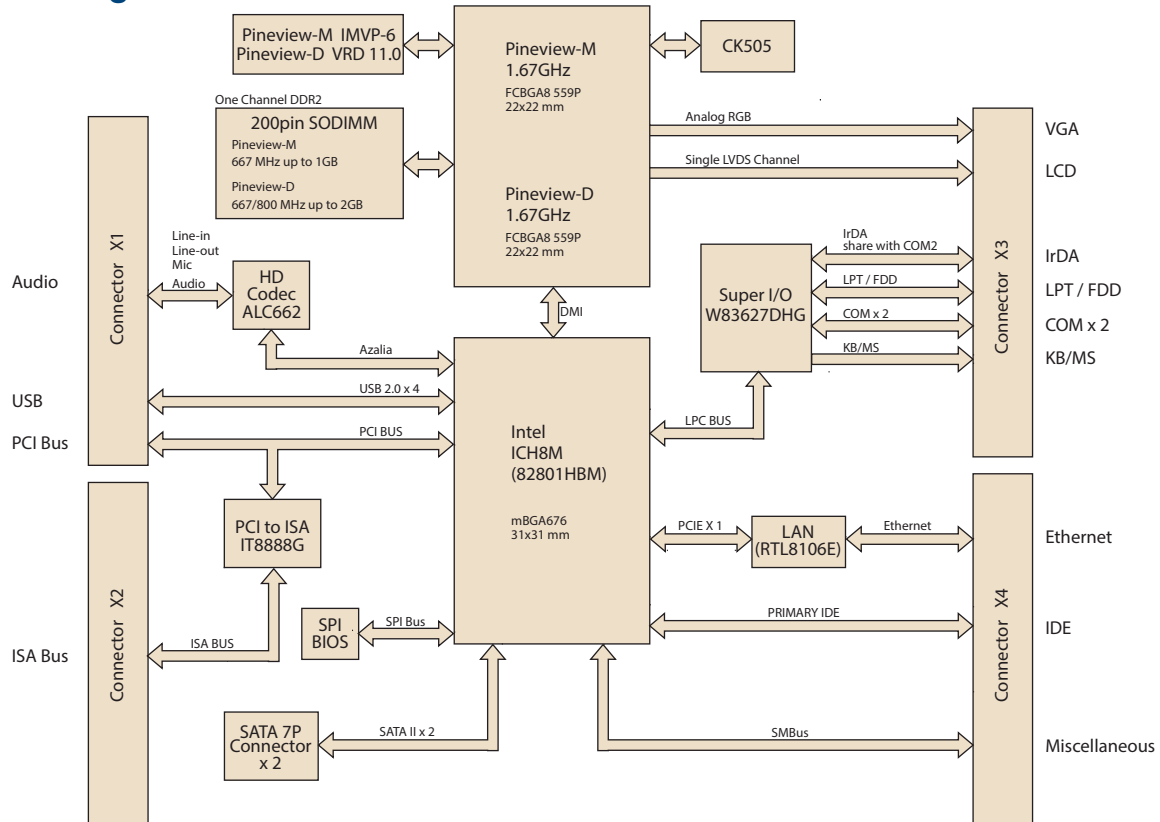
- BIOS flash
- Monitoring
- Flash Lock
- Embedded Security ID



### 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")

## Block 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
1960090719N001	H.S R2 Semi-Cooler 114x96x15-SC 12V0.3A 4200RPM

## 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