

SOM-6763

Intel® Atom N450/D510 COM-Micro CPU Module

Preliminary



Features

- Embedded Intel® Atom N450 SC 1.67 GHz/D510 DC 1.67 GHz processor + ICH8M
- Intel Gen 3.5 DX9, MPEG2 Decode in HW, support 18-bit LVDS, VGA
- Support 2 DDR2-667 memory SODIMM sockets up to 4 GB
- Support 5 PCIe x 1, 4 PCI masters, LPC, 3 SATAII, 8 USB 2.0, EIDE, GbE
- Support embedded software APIs and Utilities

Software APIs:

- Watchdog
- IPC
- SMBus
- H/W Monitor
- GPIO
- Backlight On/Off

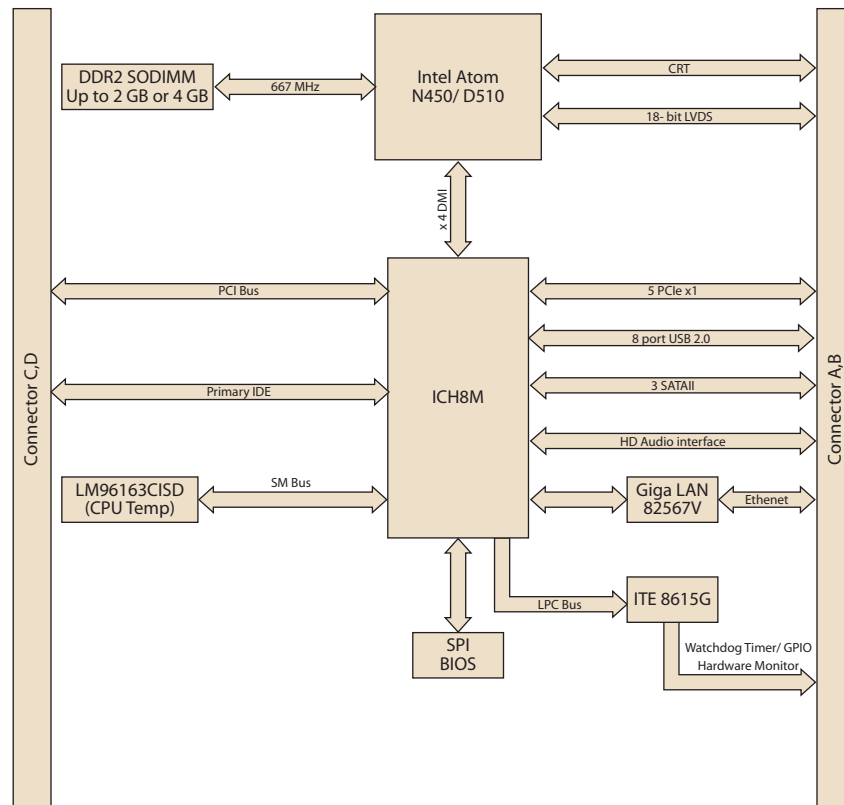
Utilities:

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

Specifications

Form Factor	COM-Micro, Module Pin-out Type II	
Processor System	CPU	Intel Atom N450 1.67 GHz (single core), 512 KB L2 Cache Intel Atom D510 1.67 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 based on Atom N450 up to 4 GB based on Atom D510
	Socket	2 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	Single channel 18-bit LVDS up to WXGA 1366 x 768
	VGA	Intel Atom N450 Single Core up to 1400 x 1050 (SXGA) Intel Atom D510 Dual Core up to 2048 x 1536
	DVI	N/A
	TV Out	N/A
	SDVO	N/A
Ethernet	Chipset	Intel 82567V Gigabit Ethernet
	Speed	10/100/1000Base-T
WatchDog Timer	256 levels timer interval, from 0 to 255 sec or min setup by software, jumperless selection, generates system reset	
Expansion	LPC, 5 PCIe x 1 (1 PCIe x 4 and 1 PCIe x 2 option), 4 PCI masters	
I/O	PATA	1 x EIDE (UDMA 100)
	SATA	3 x SATAII (300 MB/s)
	USB	8 x USB 2.0
	Audio	High definition audio interface
	GPIO	8-bit GPIO
Power	Power Type	ATX, AT
	Power Supply Voltage	+12 V and +5 VSB for ATX, +12V for AT
	Power Consumption (Typical)	6763N (1 GB DDRII 667) +12 V @ 0.67 A 6763D (1 GB DDRII 667) +12 V @ 0.93 A
	Power Consumption (Max, test in HCT)	6763N (1 GB DDRII 667) +12 V @ 0.89 A 6763D (1 GB DDRII 667) +12 V @ 1.32 A
	Environment	Operating Temperature
Operation Humidity		0% ~ 90% relative humidity, non-condensing
Mechanical	Dimension	95 x 95 mm (3.74" x 3.74")

Board Diagram



Ordering Information

Part No.	CPU	L2 Cache	Chipset	LVDS	VGA	Giga LAN	HD Audio	PCIe x 4	PCIe x 1	PCI	USB 2.0	SATA	LPC	SMBUS	ATX Power	AT Power	Thermal Solution	Operation Temp.
SOM-6763N-S6A1E	Atom N450	512 KB L2	Intel Pineview	18-bit	V	1	V	Option	5	4	8	3 x SATAII	1	1	V	V	Active	0 - 60° C
SOM-6763D-S6A1E	Atom D510	1 MB L2	Intel Pineview	18-bit	V	1	V	Option	5	4	8	3 x SATAII	1	1	V	V	Active	0 - 60° C

Development Board

Part No.	Description
SOM-DB5700G-00A2E	Development Board for COM-Express with GLAN

Packing List

Part No.	Description	Quantity
	SOM-6763 CPU Module	1
	Utility CD	1
	Heatspreader	1