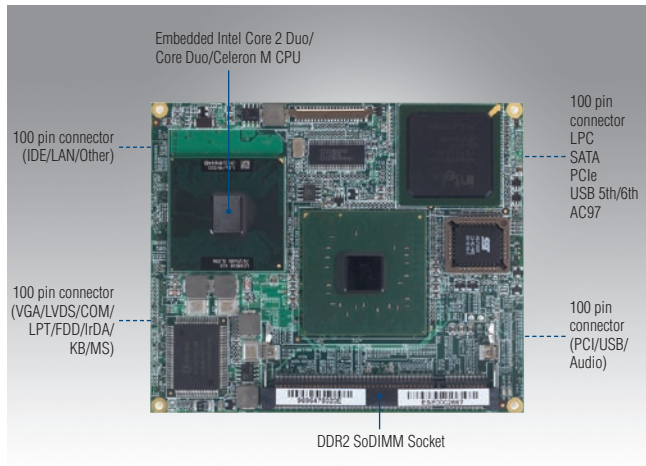


# SOM-4780

Intel® Core™ 2 Duo, 945GME XTX CPU Module



## Features

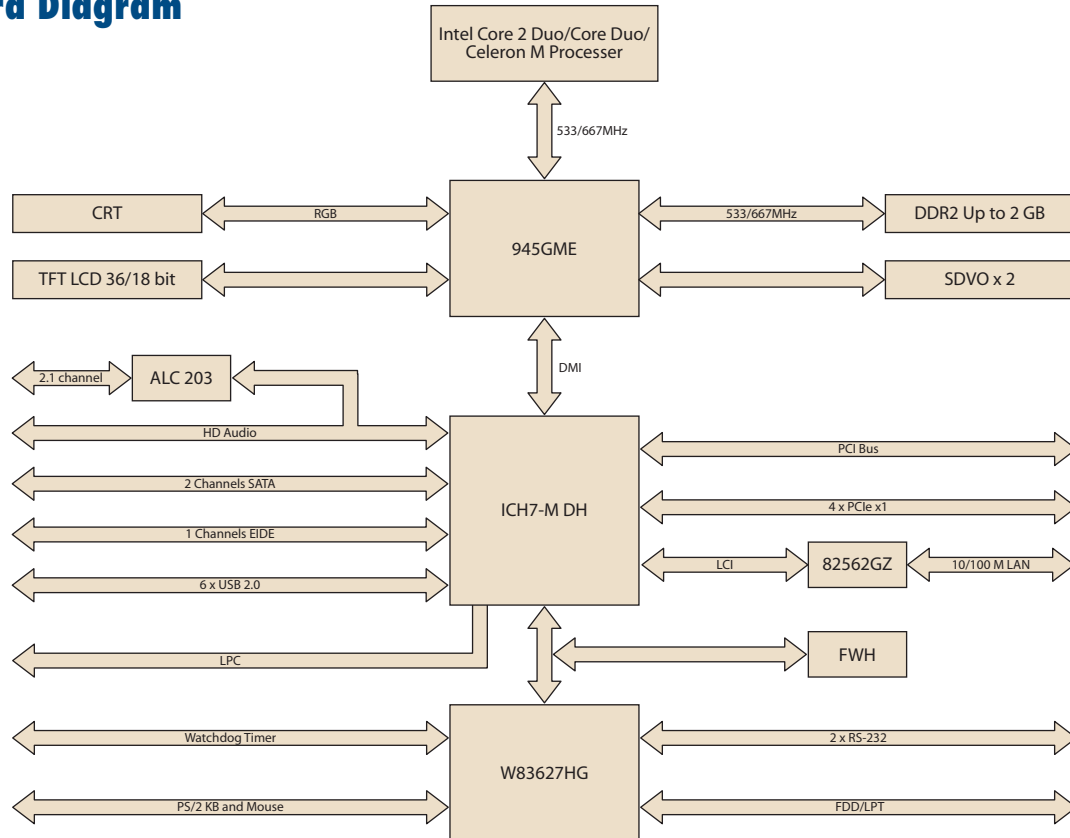
- Embedded Intel® Core™ 2 Duo/Celeron® M processor
- Intel 945GME/ICH7-MDH Chipsets
- Supports one DDR2 SODIMM up to 2 GB
- Mobile Intel GMA 950 3D/2D engine
- Display type: 2 x 18-bit LVDS/ VGA/ 2 SDVO
- Intel 10/100 Mbps LAN
- Expansion: 4 PCIe x 1, 4 PCI master, LPC
- 6 x USB 2.0, 2 SATA, 1 EIDE



## Specifications

Form Factor		XTX 1.0
Processor System	CPU	Intel Core 2 Duo/Celeron M Processor
	Front Side Bus	533/667MHz
	System Chipset	Intel 945GME GMCH/ICH7-M DH
	BIOS	AWARD 4 Mbit Flash BIOS
Memory	Technology	DDR2 533/667 MHz
	Max. Capacity	up to 2 GB
	Socket	1 x 200-pin SODIMM socket
Display	Chipset	Intel 945GME
	VRAM	DVMT 3.0 supports up to 224 MB
	Graphics Engine	Mobile Intel GMA 950 3D/2D engine
	LCD	36-bit LVDS
	VGA	up to 2048 x 1536
	SDVO	2 SDVO Ports
	Dual Display	CRT + LCD (Note: SDVO function is supported by customized BIOS)
Ethernet	Chipset	Intel 82562GZ 10/100 M Ethernet
	Speed	10/100 Mbps
WatchDog Timer		256 timer intervals, from 0 to 255 sec or min setup by software, jumperless selection, generates system reset
Expansion		LPC, 4 PCIe x 1, 4 PCI master
I/O	PATA	1 x EIDE (UDMA 100)
	SATA	2 x SATA
	USB	6 x USB 2.0
	Audio	AC97/ High definition audio interface
	GPIO	1-bit GPIO, 2-bit GPE
	COM	2 COM ports
	FDD/LPT	1 FDD or LPT
Power	Power Type	ATX, AT
	Power Supply Voltage	+5 V only (+5 VSB needs for ATX)
	Power Consumption (Typical)	Typical: (1 GB DDRII 533) +5 V @ 2.34 A (L2400)
	Power Consumption (Max, test in HCT)	Max: (1 GB DDRII 533) +5 V @ 3.80 A (L2400)
Environment	Operating Temperature	0 ~ 60° C (32 ~ 140° F)
	Operating Humidity	0% ~ 90% relative humidity, non-condensing
Mechanical	Dimensions	114 x 95 mm (4.5" x 3.74")

## Board Diagram



## Ordering Information

Part No.	CPU	L2 Cache	Chipset	LVDS	VGA	SDVO	TV out	10/100 LAN	AC97 Audio	PCIe x 1	PCI	USB 2.0	SATA	LPC	SMBUS	ATX Power	AT Power	Thermal Solution	Operating Temp.
SOM-4780FL-00A2E	Socket		945GME	2 x 18-bit	Yes	2	Yes	1	Yes	4	4	6	2	Yes	Yes	Yes	Yes	Active	0 ~ 60° C
SOM-4780FL-S0A2E	Celeron M 423	1 MB	945GME	2 x 18-bit	Yes	2	Yes	1	Yes	4	4	6	2	Yes	Yes	Yes	Yes	Passive	0 ~ 60° C
SOM-4780FL-S1A2E	Core 2 Duo U7500	4 MB	945GME	2 x 18-bit	Yes	2	Yes	1	Yes	4	4	6	2	Yes	Yes	Yes	Yes	Active	0 ~ 60° C
SOM-4780FL-S5A2E	Core 2 Duo L7400	4 MB	945GME	2 x 18-bit	Yes	2	Yes	1	Yes	4	4	6	2	Yes	Yes	Yes	Yes	Active	0 ~ 60° C
SOM-4780FL-S7A2E	Core Duo L2400	2 MB	945GME	2 x 18-bit	Yes	2	Yes	1	Yes	4	4	6	2	Yes	Yes	Yes	Yes	Active	0 ~ 60° C

## Development Board

Part No.	Description
SOM-DB4700X-00A1E	Development Board for XT X 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 12 V Fan

## Packing List

Part No.	Description	Quantity
	SOM-4780 CPU Module	1
	Utility CD	1
1960012089T00B	Heatspreader (SOM-4780FL-00A2E only)	1
1960012090T00B	Heatspreader (SOM-4780FL-S0A2E, SOM-4780FL-S5A2E, SOM-4780FL-S7A2E)	1