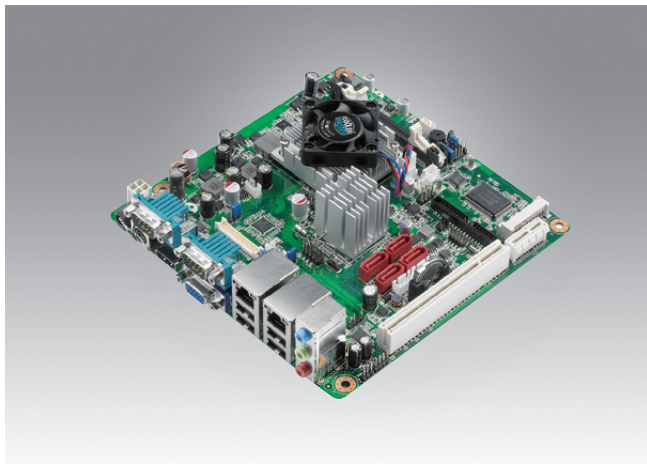


AIMB-223

**Mobile AMD G-series Dual Core/Single Core
Mini-ITX with CRT/LVDS/HDMI, 6 COM and Dual LAN**



susIAccess



CE FCC

Features

- Supports AMD Mobile G-series Dual Core/Single Core processor
- One 204-pin SO-DIMM up to 4 GB DDR31066/1333 MHz SDRAM
- Supports Dual display with CRT/HDMI/LVDS (eDP)
- Dual LANs, 6COM, Mini PCIe, and CFast
- Supports SUSIAccess and Embedded Software APIs

Software APIs:



SMBus



H/W Monitor



Watchdog



GPIO



Brightness

Utilities:



BIOS flash

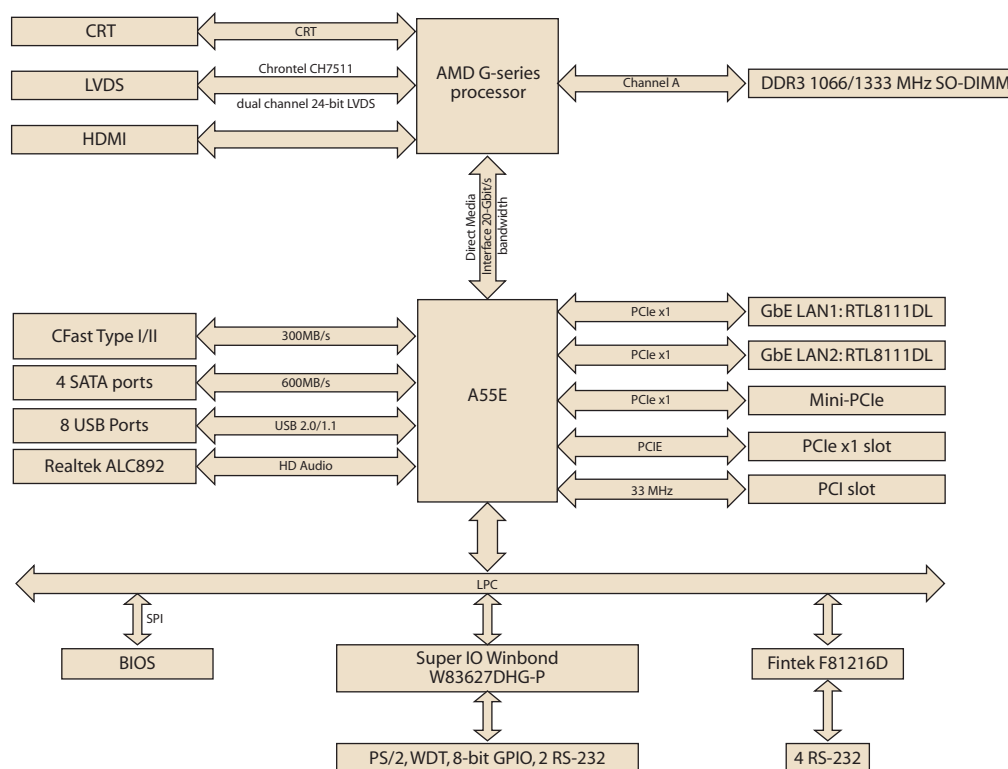


Monitoring

Specifications

Processor System	CPU	AMD Dual Core T56N	AMD Single Core T44R	AMD Dual Core T40E
	Max. Speed	1.65 GHz (dual core 18W TDP)	1.2 GHz (Single core 9W TDP)	1.0 GHz (dual core 6W TDP)
	L2 Cache	512 KB		
	Chipset	AMD G-Series + A55E		
	BIOS	AMI EFI 16 Mbit SPI		
Expansion Slot	PCI	1		
	Mini-PCIe	1		
	PCIe	PCIe x1 (PCIe gen2)		
Memory	Technology	One channel DDR3 1066/1333 MHz		
	Max. Capacity	4 GB		
	Socket	1 x 204-pin SO-DIMM (Non-ECC)		
Graphics	Controller	ATI Radeon HD 6310, support DirectX 11, UVD3		
	VRAM	Shared system memory up to 224 MB SDRAM		
	CRT	Supports up to 2560 x 1536 @ 32bpp		
	LVDS	Supports dual channel 48 bit up to 1920 x 1200		
	HDMI	1920 x 1200 @ 60 MHz		
Ethernet	Dual Display	CRT+LVDS, LVDS+HDMI, CRT+HDMI		
	Interface	10/100/1000 Mbps		
	Controller	GbE LAN1: RTL8111DL; GbE LAN2: RTL8111DL		
SATA	Connector	RJ-45 x 2		
	Max Data Transfer Rate	600 MB/s (SATA 3.0)		
EIDE	Channel	4		
	Mode	None		
SSD	Channel	None		
	CFast CompactFlash	CFast type I/II		
Rear I/O	CRT	1		
	HDMI	1		
	Ethernet	2		
	USB	4 (USB 2.0 compliant)		
	Audio	3 (Mic-in, Line-out, Line-in)		
	Serial	2 (RS-232)		
	DCjack	1 (2.5 mm)		
Internal Connector	LVDS & Inverter	1		
	USB	4 (USB 2.0 compliant)		
	Serial	4 (RS-232, COM3 support 5V/12V by jumper selection)		
	IDE	None		
	SATA	4		
	CFast CompactFlash	1		
	Parallel	None		
Watchdog Timer	GPIO	8-bit		
	Output	System reset		
Power	Interval	Programmable 1 ~ 255 sec/min		
	Power Type	Single voltage 12V DC input; 1 x External DC jack; 1 x Internal 4-pin (2x2) power connector; Supports AT/ATX mode		
Environment	Power Consumption	12 V @ 2.97 A (AMD T56N 1.65 GHz processor/DDR3 1333 MHz 4 GB, SATA HDDx1)		
		12 V @ 1.36 A (AMD T40E 1.0 Hz processor/DDR3 1333 MHz 4 GB, SATA HDDx1)		
Physical Characteristics	Operating	Non-Operating		
	Temperature	0 ~ 60° C (32 ~ 140° F)	-40 ~ 85° C (-40 ~ 185° F)	
Physical Characteristics	Dimensions	170 mm x 170 mm (6.69" x 6.69")		

Block Diagram



Ordering Information

Part Number	CPU	Display	LAN	COM	TPM	Thermal solution
AIMB-223G2-S0A1E	SC 1.2 GHz	CRT/LVDS/ HDMI	2	6	(1)	Active
AIMB-223G2-S1A1E	DC 1.0 GHz	CRT/LVDS/ HDMI	2	6	(1)	Active
AIMB-223G2-S2A1E	DC 1.65 GHz	CRT/LVDS/ HDMI	2	6	1	Active

Note: Passive = fanless; Active = with fan

*() BOM options available on MP version.

Packing List

Part Number	Description	Quantity
1700018785	SATA Power cable	2
1700003194	SATA HDD cable	2
1700008876	Serial port cable	2
1960046526N001	CPU cooler	1
1960058596T000	I/O port bracket	1
2006022310	Startup manual	1
2062022300	Driver CD	1

Optional Accessories

Part Number	Description
1700003195	USB cable with two ports, 17.5 cm
1700002204	USB cable with two ports, 27 cm
1700008461	USB cable with four ports, 30.5 cm
1757003064	Adapter AC100-240V, 84W, +12V/ 7A FSP
1757003995	Adapter AC100-240V, 60W, +12V/ 5A FSP
1960056560T001	Fanless heatsink for T50E processor

Optional Chassis

Part Number	Description
AIMB-B2000-00YE	Mini-ITX chassis with optional DC Adaptor

Embedded OS/API

OS/API	Part No.	Description
Win XPE	2070010939	WES09 AIMB-223 V4.0 ENG ATIP
WES7	2070010998	WES7E SP1 x32 AIMB-223 V5.1 ENG ATIP
Software API	TBD	SUSI V3.0 SW API for AIMB-223 XP

I/O View



AIMB-223G2-S0A1E
AIMB-223G2-S1A1E
AIMB-223G2-S2A1E

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Advantech:](#)

[AIMB-223G2-S2A1E](#) [AIMB-223G2-S1A1E](#) [AIMB-223G2-S0A1E](#)