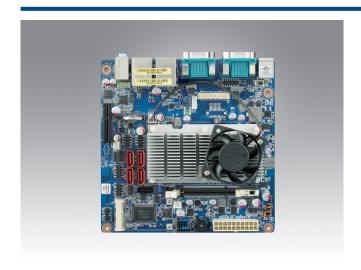
GMB-A55E

AMD® G-Series mini-ITX Motherboard



Features

- The latest AMD G-series APU supports 40nm process technology
- Supports AMD Controller Hub A55E
- AMD Radeon™ HD6320/HD6290 /HD6250 Graphics Engine supports HDMI 1.3a, DirectX 11, OpenGL4.0, dedicated hardware (UVD3.0) for H.264, VC-1, MPEG-2, DivX decode.
- Multiple display I/O supports versatile Dual display functions: HDMI, VGA, 18-bit single channel LVDS
- Dual Realtek RTL8111DL Gigabit LAN
- 1PCle x4 Gen.2, 1 Mini PCle
- 5SATA 3.0 (6Gb/s)
- 4COM (2Powered COM), 8 USB2.0









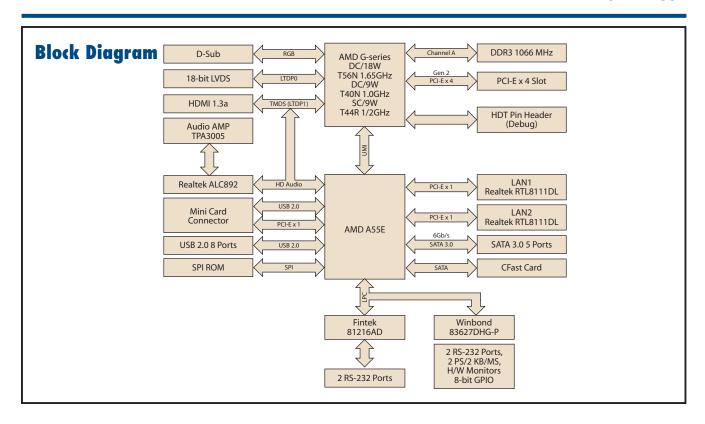
Introduction

The GMB-A55E is a complete AMD embedded platform. The APU is integrated with Radeon™ HD 6320/6290/6250 and supports dual/single core processors. With the mini-ITX form factor, GMB-A55E supports dual displays for flexible output combinations. It has one reserved Mini PCle slot, which could work with an optional VGA card to support various extended display requirements. A full feature set of I/Os and COMs (8x USB 2.0, 4x COM ports, dual LANs, 5 SATA 3.0) is an ideal replacement for your existing solution.

GMB-A55E provides the best performance-to-cost solution supporting multiple display applications in gaming, amusement, signage, advertisement, kiosk, retail and surveillance.

Specifications

	APU	AMD G-series T56N 1.65 GHz	AMD G-series T44R 1.2 GHz	AMD G-series T40N 1.0 GHz					
	Core Number	2	1	2					
D	L2 Cache	512 KB x2	512 KB x1	512 KB x2					
Processor System	Power Consumption	18 W	9 W	9 W					
	Package	FT1(413-BGA)							
	Fusion Controller Hub	AMD A55E							
System Memory	Technology	DDR3 1066/1333 (T56N only) (no	n-ECC support)						
	Socket	1x SODIMM 204 pin/single channel							
	Max. Capacity	4 GB							
	PCIe x4 Slot (Gen2)	1 slot							
Expansion Slot	Mini PCI –E	1 slots							
		AMD Radeon HD 6320 (T56N)							
	lata and a disconsistant of the last	AMD Radeon HD6290 (T40N)							
	Integrated Graphic Controller	AMD Radeon HD6250 (T44R)							
Integrated 2D/3D Display	DirectX 11, OpenGL4.0, dedicated hardware (UVD3.0) for H.264, VC-1, MPEG-2, DivX decode								
	Dual Display	VGA+LVDS, VGA+HDMI, LVDS+HI	OMI						
		Onboard							
	VGA - T56N (18W) supports up to 2560 x 1600								
		- T40N/T44R(9W) support up to 19							
	HDMI	Onboard, support HDMI 1.3a & 10							
	LVDS	Onboard, 18-bit single channel LV							
	LVDS Backlight		sted from AMD A55E Controller Hub)						
	MIO		1HDMI, 1VGA, 1 LVDS, 1inverter, 18	PS/2 Keyboard, 1PS/2 Mouse					
/0	USB	8 USB 2.0 (4Rear, 4 Internal)							
, 0	GPI0	8-bit General Purpose							
		<u> </u>							
Gigabit Ethernet	LAN1	Realtek RTL8111DL Gigabit LAN							
	LAN2	Realtek RTL8111DL Gigabit LAN							
IOS	BIOS Core	AMI EFI 2 MB SPI							
Others functions	Super I/O Chipset	Winbond							
	· ·	W83627DHG-P							
	Audio Codec	Realtek ALC892, 5.1 Channel HD Audio							
	H/W Status Monitor	Monitoring temperature, voltage and cooling fan status, Auto throttling control when CPU overheats							
	Power state	S3, S4, S5							
	Watchdog Timer	Reset: 1~255 sec/min per step							
	Wake up on LAN or Ring	LAN	<u> </u>						
	Power Type	ATX (support at AT mode)	40.14	10.11					
Power	Power Requirement	+3.3 V +5 V	+12 V	-12 V 5 VSB					
		0.47 A 1.66 A	1.07 A	0.05 A 0.16 A					
	Power Connector	20-pin ATX Power Connector							
	Dimension	6.69" x 6.69" (170 x 170) mm							
Environment	Operating Temperature	0 ~ 60° C (32 to 140° F)							
	Operating Humidity	0% to 90% relative humidity, non-condensing							
	Weight	0.96 lbs (0.436 Kg)							





Rear I/Os

- 1 PS/2 Keyboard
- 1 PS/2 Mouse
- 1 VGA Port
- 1 HDMI Port
- 2 COM RS-232 Ports
- 4 USB 2.0 Ports
- 2 LAN RJ45 Ports
- Audio I/O (3Jacks)

Internal I/O Connectors

- 1 HDT Header
- 1 SPI Connector
- 4 USB Connectors
- 2 COM Port Headers
- 5 SATA Connectors
- 1 CFast Connectors (only T44R & T40N)
- 1 Front Audio Header
- 1 CPU Fan Connector
- 1 System Fan Connector
- 1 Digital I/O Connector
- 1 LVDS Connector
- 1 VGA Header
- 1 LVDS Backlight Header



Ordering Information

Part Number	APU	Chipset	Memory	HDMI	VGA	COM	GbE LAN	USB 2.0
GMB-A55E-S0A1E	T56N (DC /1.65GHz)	A55E	Non-ECC	1	1	2	2	4

Design & Manufacturing Services

ODM products are designed for customers with consistent orders and specific design requirements. ODM products are subject to minimum annual order quantities and engineering charges. Evaluation units are available without such restrictions. Advantech has a dedicated project team to serve ODM customers.

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