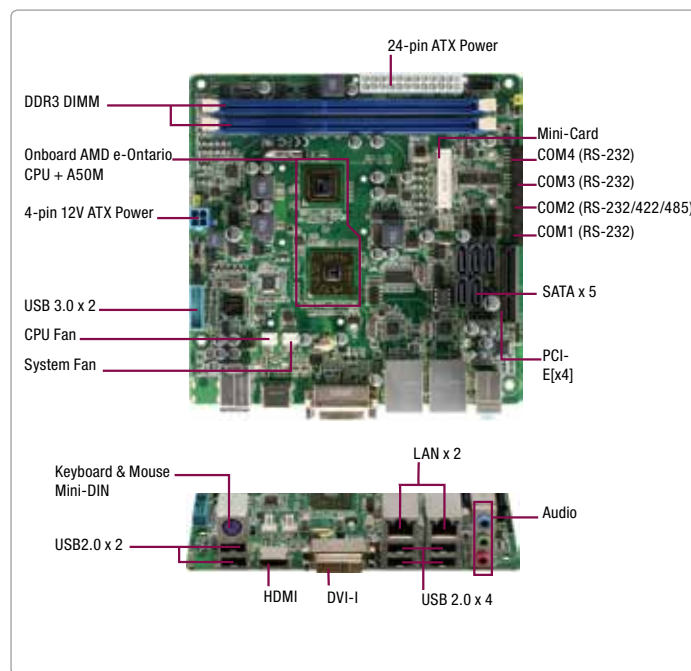


EMB-A50M

Embedded Motherboard with Onboard AMD Fusion APU Processor



Features

- Onboard AMD CPU, Fusion APU T56N/ T44R Dual-Core/ Single Core Processor
- AMD Hudson M1/ A50M
- 240-pin DDR3 800/1066 MHz DIMM x 2, Unbuffered Memory, Up to 8 GB (Supports Up To DDR3 1333 For T56N APU)
- Gigabit Ethernet x 2
- Integrated AMD Radeon™ HD 6310 (6250 for T44R)
- DVI-I, HDMI
- HD 5.1CH Audio
- SATA 6.0 Gb/s x 5
- USB3.0 x 2, USB2.0 x 10, COM x 4
- PCI-Express 2.0 [x4] x 1, Mini-PCIe (Half-size) x 1, 8-bit Digital I/O



Specifications

System	
Form Factor	Mini-ITX
Processor	Onboard AMD T56N Dual Core 1.6 GHz (Cooler) /T44R Single Core 1.2 GHz (Fanless) Processor
System Memory	240-pin DDR3 800/1066 MHz DIMM x 2, up to 8 GB (Supports Up To DDR3 1333 For T56N APU) Non-ECC, Unbuffered Memory
Chipset	AMD Hudson M1/ A50M
I/O Chipset	ITE IT8771E
Ethernet	Realtek 8111E for 10/1000/1000Base-TX, RJ-45 x 2
BIOS	AMI BIOS, 32 Mb Flash ROM, PnP, DMI 2.0, WfM 2.0, ACPI 2.0a, SM BIOS 2.6
Wake On LAN	Yes
Watchdog Timer	System reset : 1~255 steps programmable
H/W Status Monitoring	Supports system temperature, voltage, and cooling fan status monitoring
Expansion Interface	PCI-Express 2.0 [x4] x 1, Mini-PCIe (Half-size) x 1
Power Requirement	Standard 24pin ATX connector x 1, 4-pin 12V ATX connector x 1
Power Consumption (Typical)	AMD G-T56N 1.6 GHz, DDR3 1333 4 GB 0.65@+5V; 1A@+12V, 0.1A@+3.3V
Board Size	6.7"(L) x 6.7"(W)(170mm x 170mm)
Gross Weight	1.1 lb (0.5 kg)
Operation Temperature	32 °F ~ 140 °F (0 °C ~ 60 °C)
Storage Temperature	-40 °F ~ 176 °F (-40 °C ~ 80 °C)
Operation Humidity	0% ~ 90% relative humidity, non-condensing
MTBF	70,000
Display	
Chipset	Integrated AMD Radeon™ HD 6310 (6250 for T44R) graphics engine
Memory	Shared system memory up to 512 MB
Resolutions	Up to 1920 x 1200 for HDMI/DVI output resolution
Video Interface	HDMI, DVI-I
I/O	
Storage	SATA 6.0 Gb/s x 5 support AHCI mode
Serial Port	RS-232 x 3 RS-232/422/485 x 1
USB	USB3.0 x 2, USB2.0 x 10
Digital I/O	Supports 8-bit (Programmable)
PS/2 Port	Keyboard/Mouse x 1
Audio	Line-in, Mic-in, Line-out

Packing List

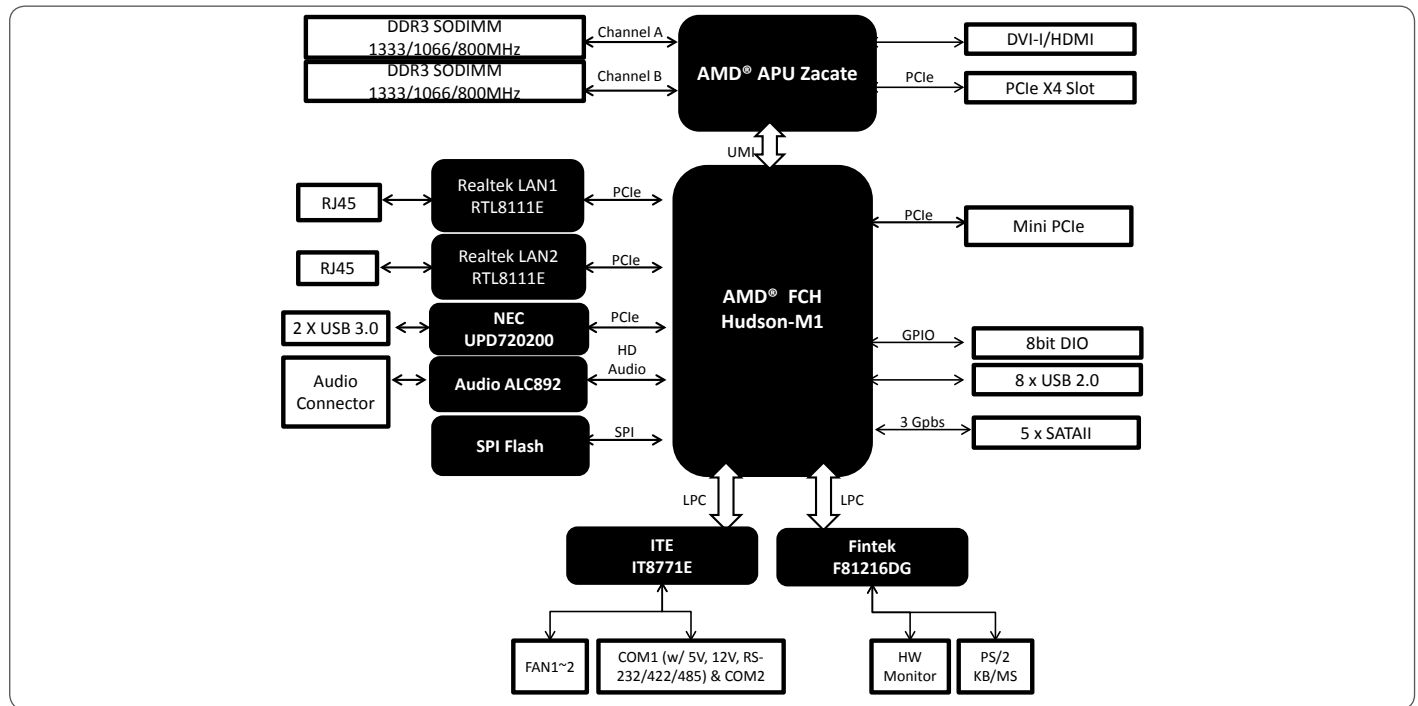
- 1709070800
SATA Cable
- M20A50M000
I/O Shield
- Product DVD
- EMB-A50M

Optional Accessories

- 1700200301
(TF)USB3.0 Cable, 2 PORTS USB3.0, to 20P 2.0mm Housing, 30.5cm, For EMB-A50M
- 1709100208
(TF)USB Cable, 10pin, (5P x 2, 2.0mm Housing), 20cm, W/O Bracket, Modified from 1709100201
- 1701100206
(TF)Flat Cable, 9P DB 9P Male, 10P 2.00mm Pitch Housing, 20cm
- 1709070800
(TF)SATA Cable, 7P Pitch 1.27mm, 80cm, W/ Lock
- 1702151201
(TF)Power Cable, 4P 2.5mm Housing, 15P SATA (F), 12cm, for FWS-2150

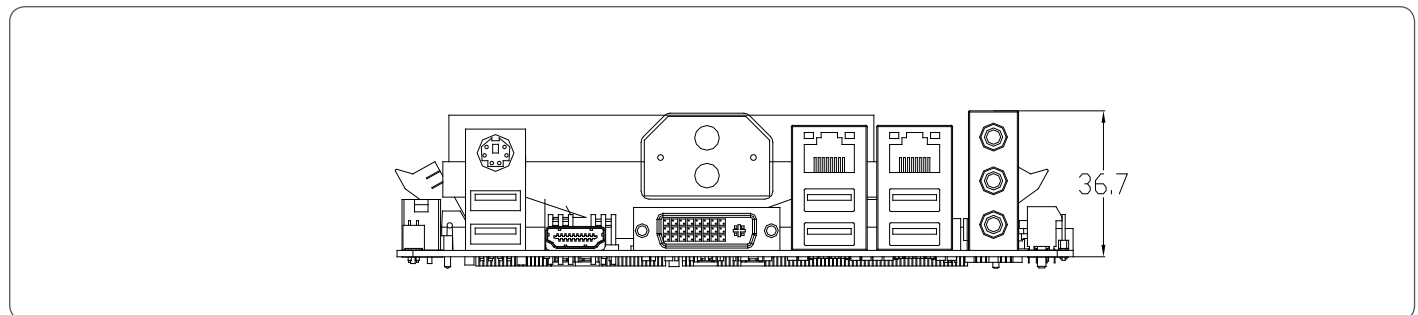
EMB-A50M

Block Diagram



Dimension

Unit: mm



Ordering Information

Part Number	CPU	RAM	Fan/Fanless	Display	Storage	LVDS	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	Temp.
TF-EMB-A50M-A10	AMD T56N	DIMM	Fan	DVI-D/HDMI	SATA3 x 5	—	GbE x 2	10	3	1	Mini-PCIe x 1, PCI-E[x4] x 1	ATX	0°C ~ 60°C
TF-EMB-A50M-A10-01	AMD T44R	DIMM	Fanless	DVI-D/HDMI	SATA3 x 5	—	GbE x 2	10	3	1	Mini-PCIe x 1, PCI-E[x4] x 1	ATX	0°C ~ 60°C