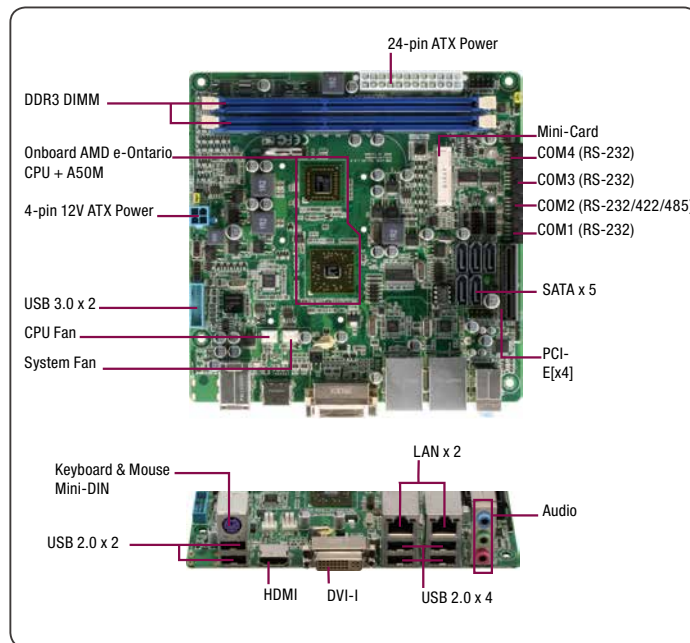


# 10 EMB-A50M

Embedded Motherboard with Onboard AMD Fusion APU Processor

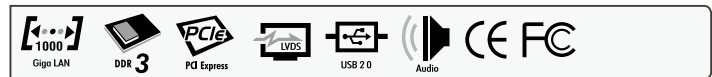


## Specifications

System	
Processor	On board AMD® Fusion APU T56N/T44R
Chipset	AMD® M1/A50M
Memory	Dual-Channel with 204-pin SDRAM x 2, DDR3 1066/800, up to 8GB
Graphics	AMD Raden HD 6310 Graphic Engine
I/O Chipset	ITE IT8771E
Ethernet	Realtek® 8111E, Gigabit Ethernet, RJ-45 x 2
Audio	Realtek® ALC892
TPM	—
Expansion Slots	PCIe [x4] x 1, Mini-PCIe x 1, mSATA x 1
BIOS	AMI BIOS - 32MB ROM
H/W Monitor	Supports System temperature, Voltage, and Cooling fan status monitoring
WatchDog Timer	System Reset: 1~255 steps programmable
Smart Fan Control	—
Wake On LAN/ PXE	Yes
Power State	S3,S4,S5
Graphics	
Graphics Chipset	AMD® M1/A50M
Graphics Multi Display	HDMI+DVI
VGA	—
DVI	1
HDMI	1
Display Port	—
LVDS	—
eDP	—
Backlight Control	Voltage
Environment & Power & ME	
Battery	Lithium Battery
Power Requirement	12V DC
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40 °F ~ 176 °F (-40 °C ~ 80 °C)
Operating Humidity	0% ~ 90% R/H, non-condensing
Certificate	CE/FCC
Form Factor	Mini-ITX 6.7" x 6.7" (170mm x 170mm)
Weight	1.32 lb(0.6 kg)
MTBF (Hours)	70,000
Rear Panel I/O Ports	
USB	USB 2.0 x 6 with Type A connectors
Display I/O	HDMI x 1, DVI-Dx1
Audio I/O	Line-in, Mic-in, Line-out

## 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
- USB 3.0 x 2, USB 2.0 x 10, COM x 4
- PCI-Express 2.0 [x4] x 1, Mini-PCIe (Half-size) x 1, 8-bit Digital I/O



LAN I/O	RJ-45 x 2
Serial Port	—
PS/2 Port	Mini-Din PS/2 K/B and Mouse x 1
Others	—
Internal I/O Connectors	
Storage	SATA 3.0 Gb/s x 5
USB	USB 3.0 x 2, USB 2.0 x 4
Display I/O	—
Audio I/O	—
Serial Port	RS-232 x 3, RS-232/422/485 x 1
PS/2 Port	—
Parallel Port	—
DIO	8-bit programmable (4-in/4-out)
FAN	CPU Fan connector(s) (4-pin) x 1, Chassis Fan connector(s) (4-pin) x 1
Power	24-pin ATX connector x 1, 4-pin connector x 1
Others	—
OS	
OS Support	Windows® XP, Windows® 7 32/64-bit, Linux Fedora

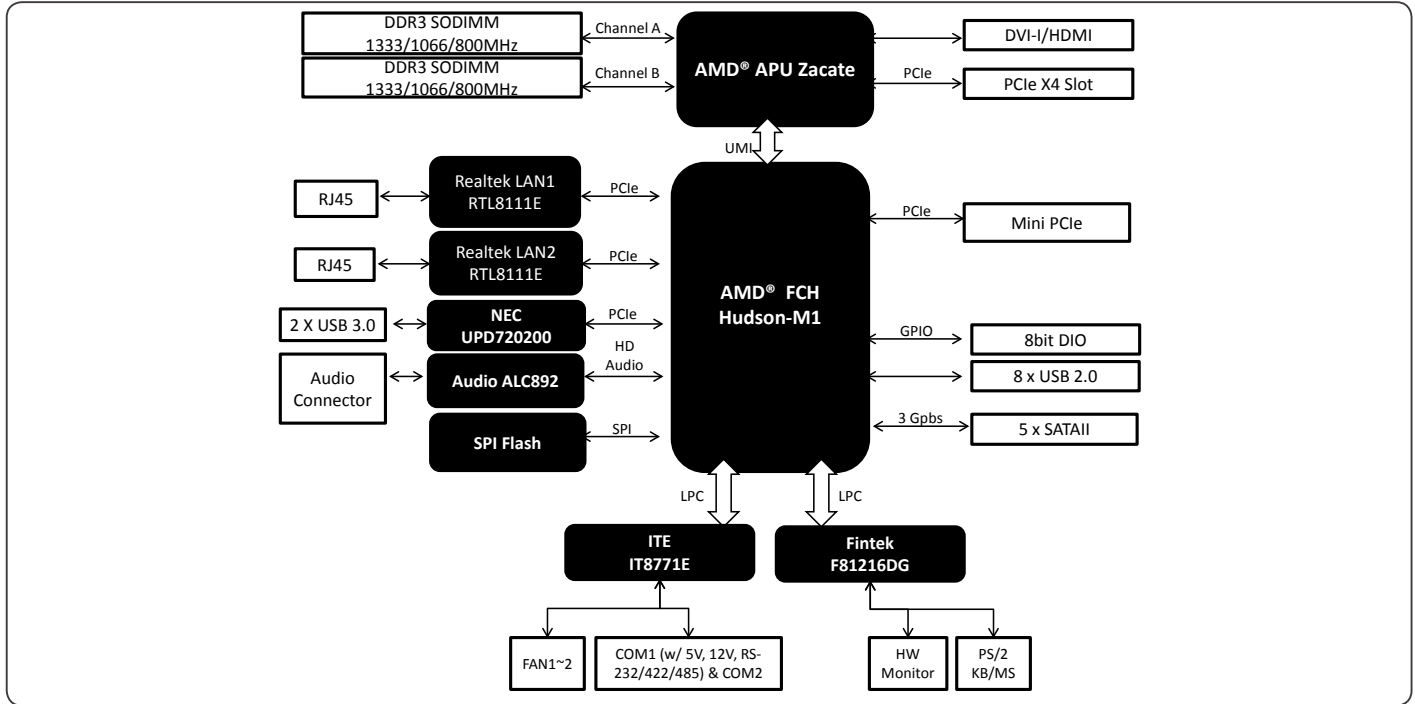
## Packing List

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

## Optional Accessories

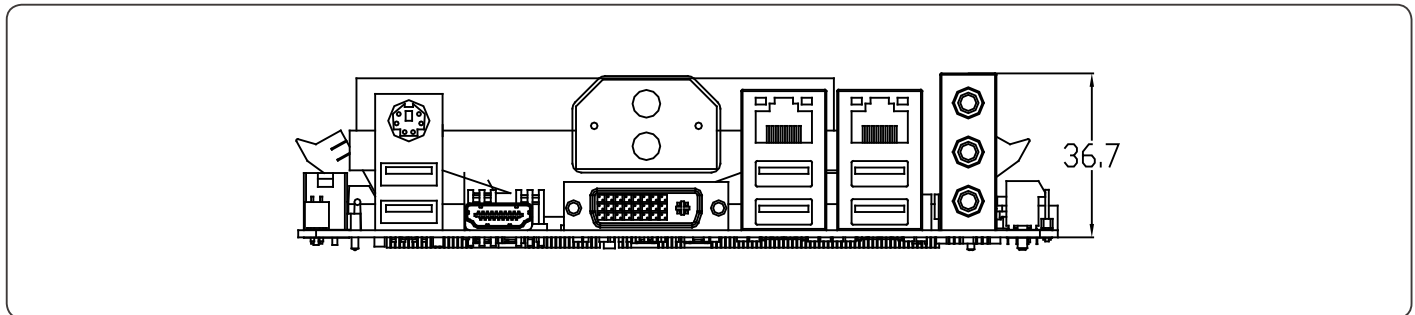
- 1700200301  
(TF)USB 3.0 Cable, 2 PORTS USB 3.0, to 20P 2.0mm Housing, 30.5cm, For EMB-A50M
- 1709100208  
(TF)USB Cable, 10pin, (5P x 2, 2.0mm Housing), 20cm, W/O Bracket, Modified from 1709100201
- 1701100206  
(TF)Flat Cable, 9P DB 9P Male, 10P 2.00mm Pitch Housing, 20cm
- 1709070800  
(TF)SATA Cable, 7P Pitch 1.27mm, 80cm, W/ Lock
- 1702151201  
(TF)Power Cable, 4P 2.5mm Housing, 15P SATA (F), 12cm

## Block Diagram



## Dimension

Unit: mm



## Ordering Information

Part number	CPU	RAM	Fan/Fanless	Display	Storage	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	TPM	Temp.
TF-EMB-A50M-A10	T56N	DDR3 8GB	Fan	DVI-D/HDMI	SATA3 x 5	GbE x 2	USD3.0 x 2, USB 2.0 x 10	3	1	PCIe [x4] x 1, mPCIe x 1	ATX	—	32°F ~ 140°F (0°C ~ 60°C)
TF-EMB-A50M-A10-01	T44R	DDR3 8GB	Fanless	DVI-D/HDMI	SATA3 x 5	GbE x 2	USD3.0 x 2, USB 2.0 x 10	3	1	PCIe [x4] x 1, mPCIe x 1	ATX	—	32°F ~ 140°F (0°C ~ 60°C)