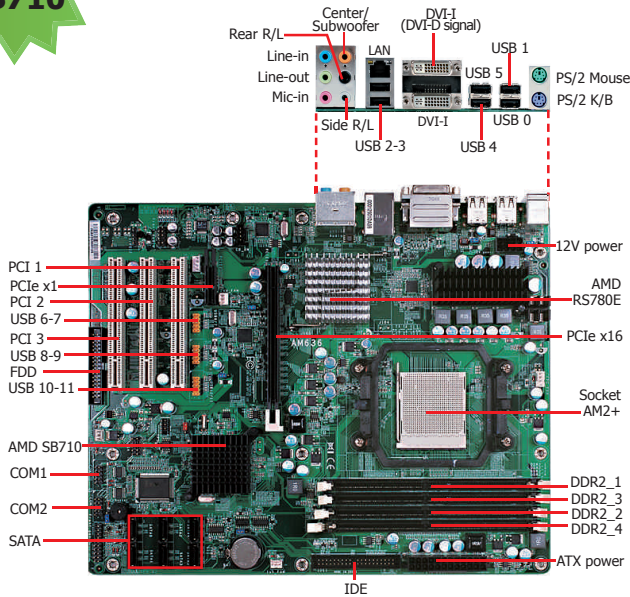


# DFI® AM636-B ATX

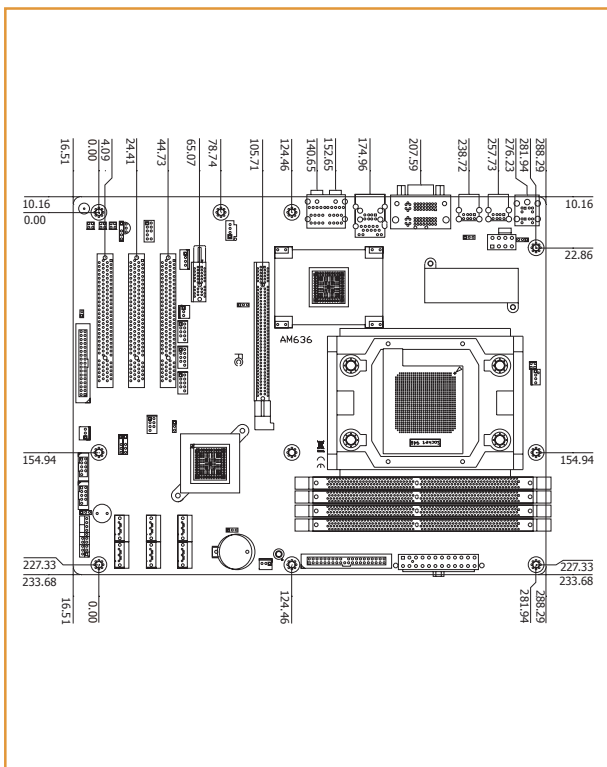
**RS780E/  
SB710**



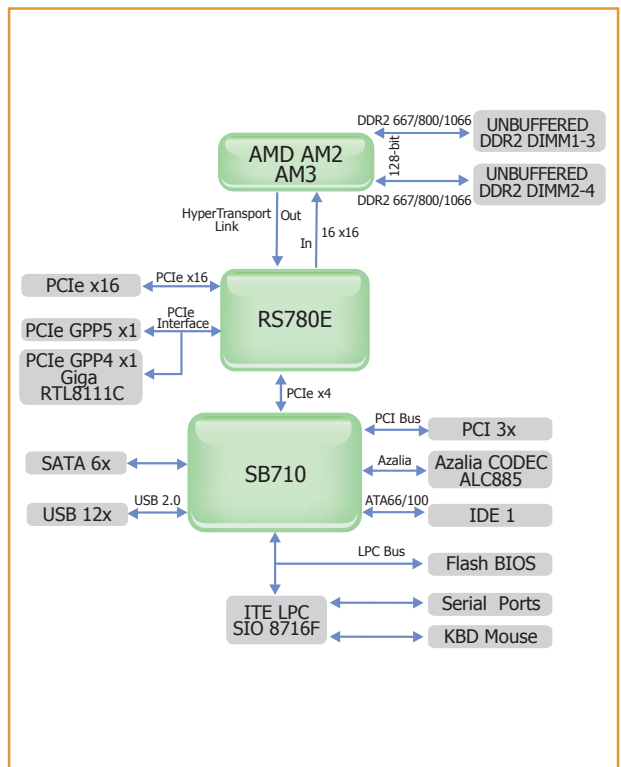
## Features

CHIPSET	<b>AMD® RS780E/SB710</b>
CPU	<b>AMD® AM2 Athlon™ series AMD® AM2 Sempron™ AMD® AM3 Phenom™ series</b>
MEMORY	<b>4 DDR2 DIMM up to 16GB</b>
EXPANSION	<b>1 PCIe x16, 1 PCIe x1, 3 PCI</b>
DISPLAY OUTPUTS	<b>1 DVI-I, 1 DVI-I (DVI-D signal)</b>
LAN	<b>1 Gigabit LAN port</b>
COM	<b>2 COM</b>
USB	<b>12 USB 2.0</b>
STORAGE	<b>6 SATA 2.0 1 IDE 1 FDD</b>

## Mechanical Drawing



## Block Diagram



## Specifications

### PROCESSOR

- Socket 940 AM2+ 65nm for:
  - AMD® AM2 processors: Athlon series / Sempron™
  - AMD® AM3 Phenom™ processors
- HyperTransport 3.0

### CHIPSET

- AMD® chipset
  - Northbridge: AMD® RS780E
  - Southbridge: AMD® SB710

### SYSTEM MEMORY

- Four 240-pin DDR2 DIMM sockets
- Supports maximum of 16GB system memory
- Supports DDR2 667/800/1066MHz DIMMs
- Supports dual channel 128-bit wide memory interface
- Supports unbuffered x8 and x16 DIMMs

### EXPANSION SLOTS

- 1 PCI Express x16 slot
- 1 PCI Express x1 slot
- 3 PCI slots

### ONBOARD GRAPHICS FEATURES

- Integrated ATI Radeon HD3200 graphics engine
- Microsoft DirectX 10
- Dual independent displays
  - Completely independent resolution, refresh rates, and display data for the two display paths
- Graphics interface:
  - DVI interface

### ONBOARD AUDIO FEATURES

- Realtek ALC885 HD audio codec
- 7.1-channel audio output
- DAC SNR/ADC SNR of 106dB/101dB
- Full-rate lossless content protection technology

### ONBOARD LAN FEATURES

- One Realtek RTL8111C PCI Express Gigabit controller
- Supports 10Mbps, 100Mbps and 1Gbps data transmission
- IEEE 802.3 (10/100Mbps) and IEEE 802.3ab (1Gbps) compliant

### SERIAL ATA INTERFACE

- Supports 6 SATA (Serial ATA) interfaces which are compliant with SATA 1.0a specification
- SATA speed up to 3Gb/s
- RAID 0 and RAID 1

### REAR PANEL I/O PORTS

- 1 mini-DIN-6 PS/2 mouse port
- 1 mini-DIN-6 PS/2 keyboard port
- 1 DVI-I port
- 1 DVI-D port
- 1 RJ45 LAN port
- 6 USB 2.0/1.1 ports
- Center/Subwoofer, Rear R/L and Side R/L jacks
- Mic-in, line-in and line-out jacks

### I/O CONNECTORS

- 3 connectors for 6 additional external USB 2.0/1.1 ports
- 1 front audio connector for line-out and mic-in jacks
- 2 connectors for 2 external RS232 serial ports
- 1 CD-in connector
- 1 40-pin IDE connector
- 1 FDD connector
- 6 Serial ATA connectors
- 1 IrDA connector
- 1 CIR connector
- 1 24-pin ATX power connector
- 1 8-pin 12V power connector
- 1 front panel connector
- 4 fan connectors

### BIOS

- Award BIOS
  - 8Mbit SPI flash memory

### ENERGY EFFICIENT DESIGN

- ACPI specification 2.0 compliant power management schemes
- Supports S1 and S3
- Wake-On-Events include:
  - Wake-On-PS/2 KB/Mouse
  - Wake-On-USB KB/Mouse
  - Wake-On-LAN
  - Wake-On-Ring
  - RTC timer to power-on the system
- AC power failure recovery

### DAMAGE FREE INTELLIGENCE

- Monitors CPU/system temperature
- Monitors CPU/DIMM/3.3V/5V/12V/5VSB/1.2V/Vbat voltages
- Monitors CPU/system fan speed
- Read back capability that displays temperature, voltage and fan speed
- Watchdog timer function

### POWER CONSUMPTION

- 150.16 W with Athlon series and 2x 1GB DDR2 DIMM

### OS SUPPORT

- Windows XP Professional x86 & SP3 (32-bit)
- Windows XP Professional x64 & SP2 (64-bit)
- Windows 7 Ultimate x86 & SP1 (32-bit)
- Windows 7 Ultimate x64 & SP1 (64-bit)

### TEMPERATURE

- 0°C to 60°C

### HUMIDITY

- 10% to 90%

### DIMENSIONS

- ATX form factor
- 305mm (12") x 244mm (9.6")

### CERTIFICATION

- CE
- FCC Class B
- RoHS

## Packing List

- 1 AM636-B motherboard
- 1 Bracket mounted with a COM port
- 1 USB cable
- 1 Serial ATA data cable
- 1 Serial ATA power cable
- 1 I/O shield
- 1 QR (Quick Reference)
- 1 CD

## Optional Items

- USB port cable
- COM port cable
- Serial ATA data cable
- Serial ATA power cable
- IDE cable
- I/O shield