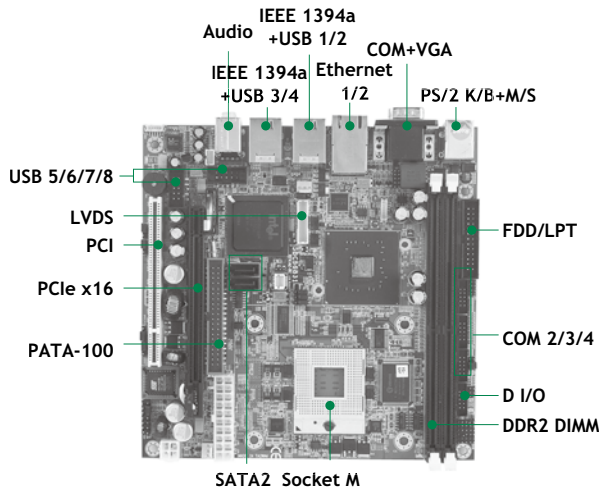


# SBC86831

Socket M Intel® Core™2 Duo Mini ITX SBC with Intel® 945GME + ICH7M/-DH Chipset, VGA/LVDS, PCI Express x16 and Firewire



Socket M
Intel® 945GME
LVDS/VGA
RS-232/422/485
2 1394a
1 PCIe x16
USB DoM

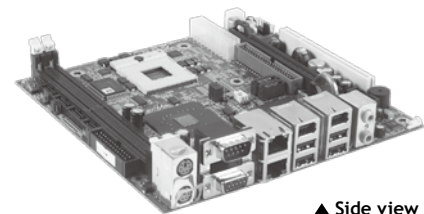


Low Power

DualView

## Features

- Socket M for Intel® Core™2 Duo/ Core™ Duo/ Core™ Solo processor with FSB 533/667 MHz
- Intel® 945GME + ICH7M/-DH chipset
- With high performance integrated graphics controller and discrete solution through PCIe x16 interface
- RAID 0/1 (optional with ICH7M-DH)
- 4 COM ports for transaction terminal applications
- 8 USB 2.0 ports and 2 IEEE 1394a ports



▲ Side view

## System

CPU	Socket M for Intel® Core™2 Duo/ Core™ Duo/ Core™ Solo/ Celeron® M processors with FSB 533/667 MHz; Intel® Celeron® M processor ULV 423 onboard
System Memory	2 x 240-pin DIMM supports DDR2-533/667 max. up to 4 GB
Chipset	Intel® 945GME + ICH7M/ICH7M-DH
BIOS	Phoenix-Award 4Mbit with RPL/PXE LAN Boot ROM, SmartView and customer CMOS backup
SSD	1 x CompactFlash™ type-II (optional)
Watchdog Timer	255 levels, 1-255 sec.
Expansion Interface	1 x PCIe x16 graphics port supports for SDVO or PCIe x1 devices 1 x PCI for 32-bit PCI supports 2 bus masters 1 x PCI Express Mini Card (optional)
Battery	Lithium 3V/220 mAh
Power Requirements	Intel® Core™2 Duo T7600 2.33 GHz, 2GB DDR2 Max. RMS: +5V_SBY @ 0.025A, +3.3V @ 0.105A, +5V @ 1.93A, +12V @ 1.583A, -12V @ NA
Size	170 x 170 mm
Board Thickness	1.6 mm
Temperature	0°C ~ +60°C (32°F ~ 140°F), operation
Relative Humidity	10% ~ 95% relative humidity, non-condensing

## I/O

MIO	1 x IDE; PATA-100 1 x FDD/LPT(default); with SPP/EPP/ECP supported 1 x PS/2 keyboard 1 x PS/2 mouse 3 x RS-232 (COM 2/3/4); with +5V/+12V powered 1 x RS-232/422/485 (COM 1); with +5V/+12V powered
SATA	2 x SATA-150; with RAID 0/1 (optional with ICH7M-DH)
Hardware Monitoring	Detect CPU/system temperature, voltage and fan speed
Ethernet	2 ports as 10/100/1000Mbps support Wake-on-LAN, RPL/PXE Boot ROM with Realtek RTL8111B
Audio	AC'97 Codec audio as MIC-in/Line-out with Realtek ALC655
USB	8 x USB 2.0
Firewire	2 x IEEE 1394a
TPM	Infineon SLB9635 for trusted platform (optional)
SMBus	System Management Bus for advanced monitoring/control interface
Digital I/O	8 channels (3-IN & 5-OUT)

## Display

Chipset	Intel® GMA 950 graphics Core
Memory Size	Intel® DVMT 3.0 compliant
Display Interface	1 x VGA 1 x LVDS; 18/24-bit single/dual channel

## Packing List

Standard		
Quick installation guide, user's manual/utility CD, cable, CPU cooler		
Cable		
Part Number	Description	Qty
593826A0000E	SATA signal cable 500mm	1
59382601000E	Ultra DMA66 IDE cable 40-pin 455mm	1
59384500200E	COM x 2 w/ bracket, P=2.0, L=250mm	1
59386831000E	USB cable x 2 w/ bracket, P=2.54mm L=180mm	1

## Ordering Information

Standard	
SBC86831VGGAF	Socket M Mini ITX SBC with VGA/LVDS LCD,
(P/N: E386831100)	2 10/100/1000Mbps Ethernet, AC'97 audio, 4 COM ports and firewire

SBC Services and Solutions

System on Modules

Embedded SBCs &gt; EPIC

Embedded SBCs &gt; 3.5" Capa

Embedded SBCs &gt; Nano-ITX

Embedded SBCs &gt; Pico-ITX

Embedded SBCs &gt; PC/104

Industrial Motherboards

Slot CPU Cards

Accessories

Appendix