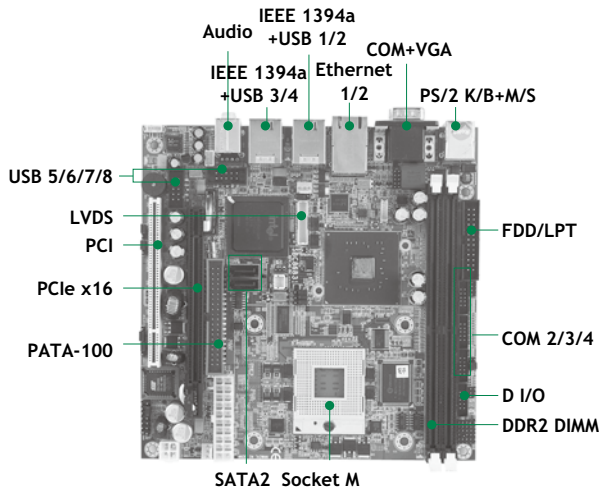


# SBC86831

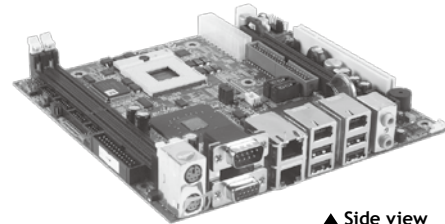
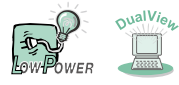
Socket M Intel® Core™2 Duo Mini ITX SBC with Intel® 945GME + ICH7M/-DH Chipset, VGA/LVDS, PCI Express x16 and Firewire



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

## 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



## 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 4GB   |
| 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<br>1 x PCI for 32-bit PCI supports 2 bus masters<br>1 x PCI Express Mini Card (optional) |
| Battery             | Lithium 3V/220 mAh   |
| Size                | 170 x 170 mm   |
| Temperature         | 0°C - +60°C (32°F - 140°F), operation  |
| Operation Humidity  | 10% - 95% relative humidity, non-condensing  |

## I/O

|                     |  |
|---------------------|--|
| MIO                 | 1 x IDE; PATA-100<br>1 x FDD/LPT(default); with SPP/EPP/ECP supported<br>1 x PS/2 keyboard<br>1 x PS/2 mouse<br>3 x RS-232 (COM 2/3/4); with +5V/+12V powered<br>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 ports  |
| Firewire            | 2 x IEEE 1394a ports   |
| 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® DVM 3.0 compliant                           |
| Display Interface | 1 x VGA<br>1 x LVDS; 18/24-bit single/dual channel |

## Packing List

| Standard  |  |                   |
|---|--|-------------------|
| Quick installation guide, user's manual/utility CD, cable |  |                   |
| Cable   |  |                   |
| Part Number   | Description                                | SBC86831VGGAF Qty |
| 593826A0000E  | SATA singal 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, AC'97 audio, 4 COM ports and firewire |

SBC Services and Solutions

System on Modules

Embedded SBCs > EPIC

Embedded SBCs > 3.5" Capa

Embedded SBCs > Pico-ITX

Embedded SBCs > PC/104

Industrial Motherboards

Slot CPU Cards

Accessories

Appendix