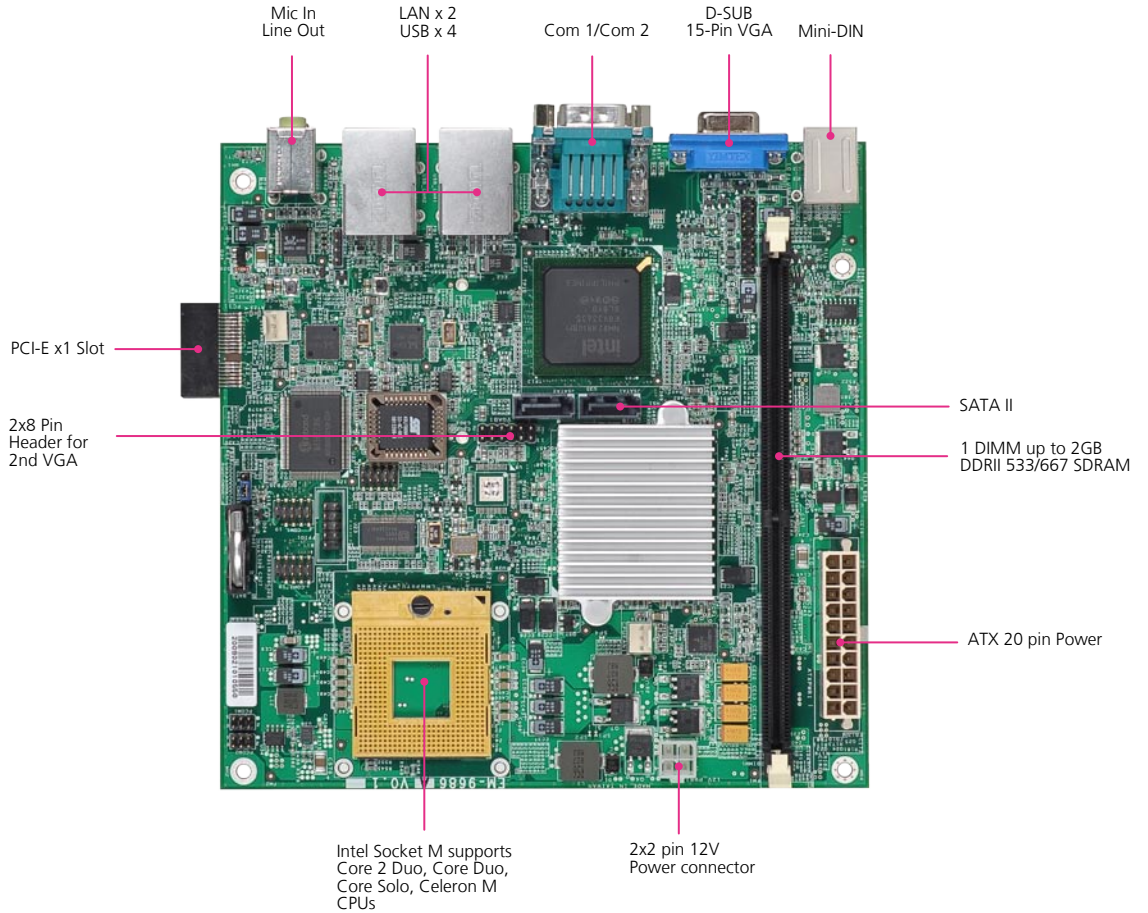


# EM-9686

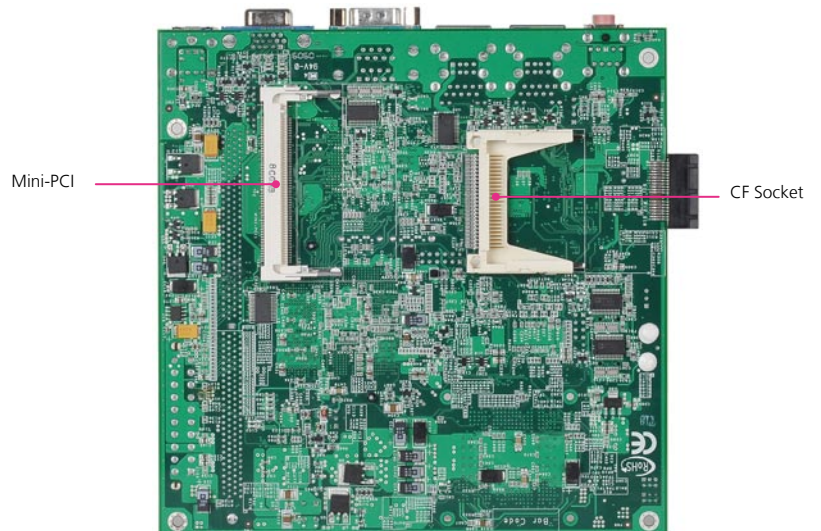
Mini-ITX Core 2 Duo/Core Duo/Core Solo Socket M embedded motherboard, with dual VGA, PCI-E x 1, COM x2, USB 2.0 x4, GbE LAN x2

- VGA x2
- AUDIO
- LAN x2
- PCI-E x1
- Core 2
- USB x 4
- LVDS



## FEATURES

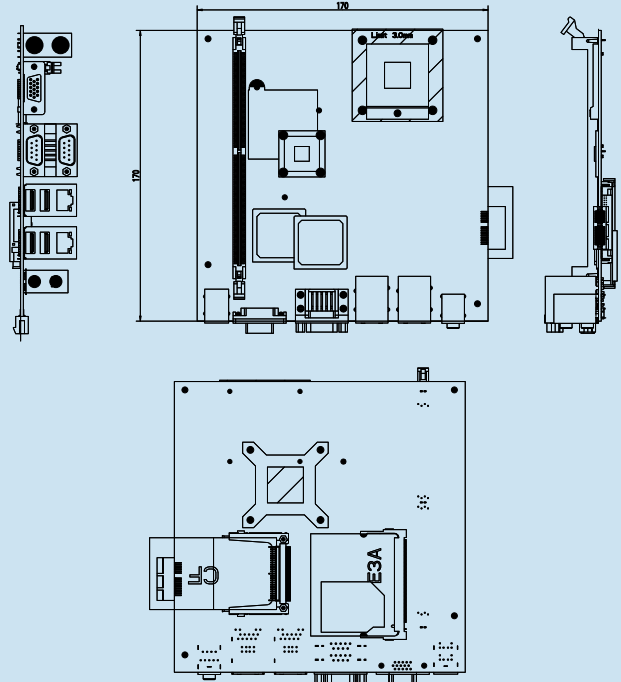
- Supports Intel Core 2 Duo, Core Solo, Core Duo, Celeron M
- Intel 945GME + ICH7M chipset
- Intel Gen 3.5 integrated graphics controller
- PCI-E (x1) x 1
- 5.1 channel audio
- USB x 4, COM x 2, GbE LAN x 2



**FEATURE DESCRIPTION**

|                                 |                                  |  |
|---------------------------------|----------------------------------|--|
| <b>Platform</b>                 | Form Factor                      | Mini-ITX   |
|                                 | Processor                        | Intel Core 2 Duo/Core Duo/Core Solo/Celeron M 423 CPU (Socket M, BGA Type)                       |
|                                 | Chipset                          | Intel 945GME+ICH7M   |
|                                 | BIOS                             | AMI 8-bit BIOS   |
|                                 | Front Side Bus                   | 533/667 Mhz  |
| <b>System Memory</b>            | Technology                       | DDR2 533/667 SDRAM   |
|                                 | Max Capacity                     | 2GB  |
|                                 | Socket                           | 240-pin DIMM x1  |
| <b>Storage Interface</b>        | SATA II                          | 2 ports  |
|                                 | SSD                              | CompactFlash Type III socket x1  |
| <b>Networking</b>               | Speed                            | IEEE 802.3u 10/100/1000 Base-Tx Gigabit Ethernet   |
|                                 | I/O                              | RJ45 x 2   |
|                                 | Controller                       | Realtek RTL8111C-VC-VR 10/100/1000Mbps Ethernet controller                                       |
| <b>Display</b>                  | Controller                       | Intel Gen 3.5 Integrated Graphics Engine   |
|                                 | Memory                           | Intel Dynamic Video Memory up to 128MB shared  |
|                                 | VGA                              | D-Sub 15-pin CRT connector (Maximum resolution 2048 x 1536)                                      |
|                                 | Secondary VGA                    | Chrontel 7317 supports 2nd VGA connector via 2 x 8 pin header                                    |
| <b>Audio</b>                    | Codec                            | ALC 888 HD Codec - Supports 5.1-Channel  |
|                                 | I/O                              | Mic-in, Line-out   |
| <b>OS Supported</b>             |                                  | Linux Kernel 2.4.16 or above<br>Windows XP (32 bit)<br>Win XPe                                   |
| <b>I/O Interface</b>            | RJ45 Ports                       | 2  |
|                                 | Keyboard/Mouse                   | PS/2 with Mini-Din connector   |
|                                 | COM Ports                        | RS232 x2 (D-Sub 9 pin)   |
|                                 | USB 2.0                          | 4  |
|                                 | Mini-PCI socket                  | 1  |
| <b>Hardware Monitoring</b>      | RTC                              | Internal RTC with Li Battery   |
|                                 | Watchdog timer                   | Software Programmable, 1-255 Level   |
| <b>Cooling</b>                  |                                  | Heatsink & Fan   |
| <b>Expansion</b>                |                                  | PCI Express (x1) x 1   |
|                                 |                                  | Mini-PCI x 1   |
| <b>Environmental Parameters</b> | Temperature, ambient operating   | 0~60°C (32~140°F) (depending on CPU)   |
|                                 | Humidity (RH), ambient operating | 0%~90% relative humidity, non-condensing   |
|                                 | Storage Temperature              | -20~70°C (-4~158°F)  |
| <b>Physical Dimensions</b>      | Dimensions                       | 170 mm x 170 mm (6.69" x 6.69" )   |
| <b>Power</b>                    | Input                            | 20 Pin Power connector/2x2 Pin +12V Power connector  |
|                                 | Form Factor                      | ATX support  |
| <b>Ordering information</b>     | EM-9686A                         | Socket M Intel Core2 Duo/Core Duo/Core Solo CPU with PCIe x1/Dual VGA/Mini-PCI/Dual LAN/Audio/CF |
|                                 | EM-9686B                         | Intel Celeron M 423 BGA CPU Onboard with PCIe x1/Dual VGA/Mini-PCI/Dual LAN/Audio/CF             |
| <b>Compliance</b>               |                                  | CE, RoHS   |

**MECHANICAL DRAWING**



**About Lanner**

Founded in 1986 and publicly listed (TAIEX: 6245) since 2003, Lanner Electronics Inc. is an ISO 9001 certified designer and manufacturer of reliable, frontline security, network video and applied computing platforms and solutions. With headquarters in Taipei, Taiwan and branches in the U.S. and China, Lanner is uniquely positioned to deliver custom technical solutions with localized, value-added service.

**Contact information**

Lanner Electronics Inc  
7F, 173, Section 2 Datong road  
Sijhih City, Taipei County 221, Taiwan

**T** +886 2 86926060

**F** +886 2 86926101

**E** sales@lannerinc.com

**W** www.lannerinc.com