Mainboard Diagram

I31GM4-L-LF

1. Intel® G31 Express Chipset + ICH7 Chipset
2. Intel® Core2 Processors
3. Support FSB 1333/1066MHz
4. Integrated GMA3100 GPU
5. Supports Dual Channel DDR2 800/667
6. Integrated Serial ATA2 3Gb/s
7. Integrated ALC662 HD Audio CODEC with 6.0 CH
8. Integrated 10/100 LAN
9. CPU Vcore 8-Shift
10. Micro ATX Form Factor

Features and Benefits

LGA775 Intel Core Processor Family Supported

The Intel® Core™ processor family delivers unrivaled performance and breakthrough energy efficiency. For your extreme computing, the Intel core processor family delivers unrivaled performance and breakthrough energy efficiency, to let you enjoy revolutionary performance with vivid, high-definition experiences and multi-tasking responsiveness by state-of-the-art Intel dual-core and quad-core technologies (Core 2 Quad and Core 2 Duo Processors).

INTEL G31 Express Chipset and ICH7 Chipset

The Intel G31 Express Chipset supports new technologies such as 1066 MHz System Bus speed, next-generation 45nm dual- and quad-core processors, and DDR2 memory to deliver increased system bandwidth and improved performance. With built-in design headroom, Intel® Fast Memory Access (Intel® FMA) and Intel® Turbo Memory, platforms based on the Intel G31 Express Chipset enable best-of-class performance and offer the best value for performance desktop computing. Desktop PC platforms based on the Intel G31 Express Chipset, combined with either the Intel® Core™2 Duo or Intel® Core™2 Quad processor, deliver new technologies and innovative capabilities for enthusiasts and digital home consumers

INTEL Graphics Media Accelerator 3100

The Intel G31 Express Chipset Integrated GMA3100 enables enhanced 3D and high-definition video technologies for a better end-user experience. 3D enhancements enable greater flexibility and scalability and improved realism with support for Microsoft DirectX* 9.0c Shader Model 2.0, OpenGL* 1.5. Intel® Graphics also support the highest levels of the Windows Vista* Aero experience

CPU Thermal Throttling / The Anti-superheated CPU protection Technology

To prevent the increasing heat from damaging of CPU, the CPU Thermal Throttling Technology will make CPU be idling from 87.5% to 12.5% by manually preset CPU operating temperature from 40℃ to 90℃. When the system senses the climbing operating temperature of CPU over the value preset, CPU Thermal Throttling Technology will narrow the operating bandwidth of CPU actively to low down the temperature to the value preset as the perfect protection system of hardware dynamic over-clocking technology.

CPU Vcore Shift / Shift_to the scalabilities and flexibilities

The adjustable voltage for CPU Vcore can be upgraded over 16 stages for the precisely hardware dynamic over-clocking of demanding computing performance.

Mainboard Specifications

■ **CPU**	**Supports INTEL® LGA775:** ■ Intel®Core2 Quad Processors, Core2 Duo Processors
■ **Chipset**	■ Intel®G31 Express Chipset + ICH7 Chipset
■ **Front Side BUS**	■ 1333/1066MHz
■ **Memory**	■ Dual Channel DDR2 memory technology ■ 2 * 240-pin DDR2 DIMM slots ■ Supports DDR2 800/667 non-ECC ,un-buffered memory ■ Max.4GB
■ **Expansion Slots**	■ 2 * 32-bit PCI Slots ■ 1 * PCI Express x16 slot by 16-LANE ■ 1 * PCI Express x1 slot
■ **Storage**	**Embedded INTEL ICH7 Chipset:** ■ 4 * Serial ATA2 3Gb/s connectors ■ 1 * Ultra DMA 100 / 66 IDE Connector
■ **Audio**	■ Realtek ALC662 HD Audio CODEC with 6-Channel
■ **Ethernet LAN**	■ Realtek RTL8103EL PCI-E 10/100 LAN
■ **USB**	■ Embedded 8 * USB 2.0/1.1
■ **Special Features**	■ Advanced Power Design that supports the latest LGA 775 Core Processor ■ "IMAGE IT!"System Backup Software and "ProMagicPLUS!" System Recovery System
■ **Rear I / O**	■ 4 * USB 2.0/1.1 ports ■ 1 * PS/2 mouse port ■ 1 * PS/2 keyboard port ■ 1 * VGA port ■ 1 * COM port ■ 1 * RJ-45 port ■ 1 * Audio I / O
■ **Internal I / O**	■ 2 * USB 2.0/1.1 headers for 4 USB 2.0/1.1 ports ■ CPU / Chassis Fan connectors ■ 1 * 4-pin ATX 12V Power connector ■ 1 * 24-pin ATX Power connector ■ 1 * Parallel port of 25-Pin block ■ CD / AUX Audio in ■ 1 * Ultra DMA 100 / 66 IDE connector ■ 1 * Floppy connector ■ 1 * HDMI_SPDIF header
■ **BIOS**	■ Award 8MB SPI Flash ROM
■ **Form Factor**	■ Micro ATX Form Factor

PCI-Express x1
PCI-Express x16
10/100m LAN
6-CH HD Audio
USB 2.0
VGA port
COM port
PS2/Keyboard Connector
PCI Slots
Floppy Connector
INTEL LGA775
INTEL G31 Chipset
DDR2 800 DIMMS
SATA 2 Connector
E-IDE Connector
ATX 24-PIN PW Connector