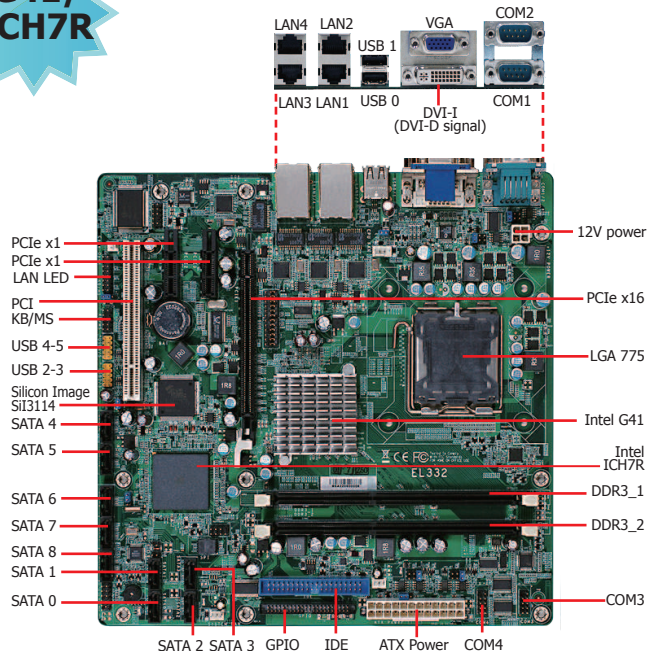


**G41/
ICH7R**

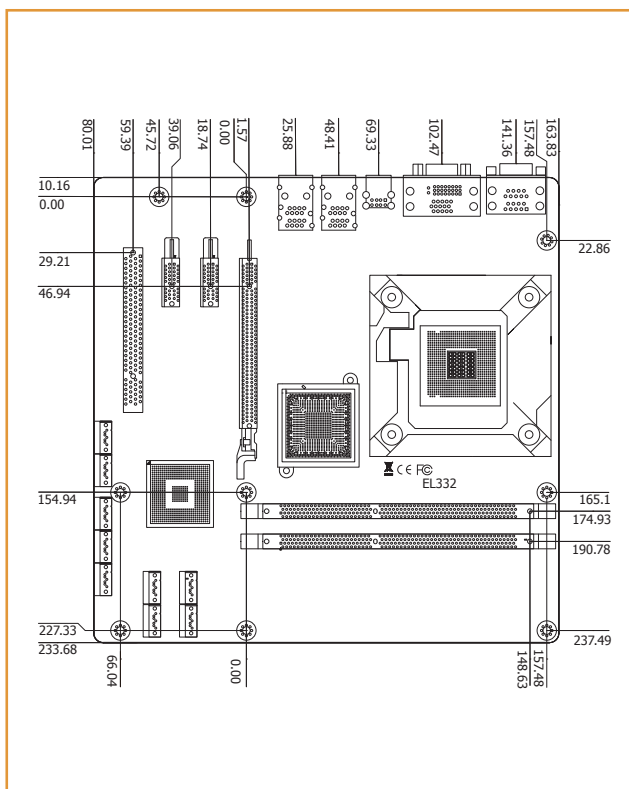
Desktop



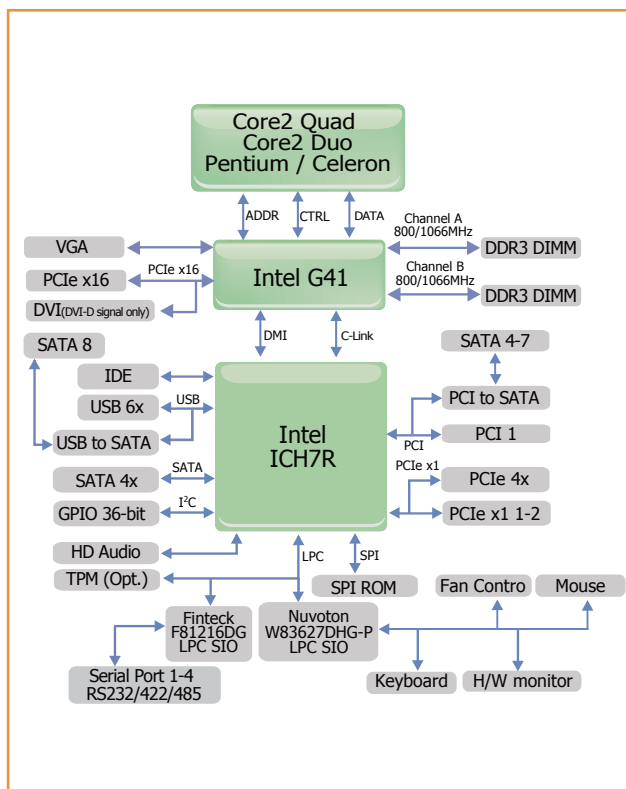
Features

CHIPSET	Intel® G41/ICH7R
CPU	Intel® Core™2 Quad Intel® Core™2 Duo Intel® Pentium® Intel® Celeron®
MEMORY	2 DDR3 DIMM up to 4GB
EXPANSION	1 PCIe x16, 2 PCIe x1, 1 PCI
DISPLAY OUTPUTS	1 DVI-I (DVI-D signal), 1 VGA
LAN	4 Gigabit LAN ports
COM	4 COM
USB	6 USB 2.0
STORAGE	9 SATA 2.0 1 IDE
DIO	36-bit DIO

Mechanical Drawing



Block Diagram



Specifications

PROCESSOR

- LGA 775 socket for:
 - Intel® Core™2 Quad Q9400
 - Intel® Core™2 Duo E8400/E7400/E6400/E4300
 - Intel® Pentium® E6500/E5300/E2160
 - Intel® Celeron® E3400/E1500/440
- Supports Intel Enhanced Memory 64 Technology (EM64T)
- Supports Enhanced Intel SpeedStep Technology (EIST)
- 1333/1066/800MHz FSB

CHIPSET

- Intel® chipset
 - Intel® G41 Express chipset
 - Intel® ICH7R I/O Controller Hub

SYSTEM MEMORY

- Two 240-pin DDR3 DIMM sockets
- Supports DDR3 800/1066MHz DIMM
- Maximum memory bandwidth of 17GB/s in dual-channel mode when using DDR3 1066MHz
- Supports dual channel memory interface
- Supports up to 4GB system memory
- Supports unbuffered x8 and x16 DIMMs

EXPANSION SLOTS

- 1 PCI Express x16 slot (PCIe 1.1)
- 2 PCI Express x1 slots (PCIe 1.1)
- 1 PCI slot (PCI 2.3)

ONBOARD GRAPHICS FEATURES

- Integrated Intel® GMA X4500
 - Supports 3D, 2D and video capabilities, DX10 and OpenGL 1.5
- Display ports: DVI-I (Chrontel CH7307C) and VGA

ONBOARD AUDIO FEATURES

- Realtek ALC262 2-channel High Definition Audio
- DACs with 100dB SNR and ADCs with 90dB SNR

ONBOARD LAN FEATURES

- 4 Intel WG82574L PCI Express Gigabit Ethernet controllers
- Supports 10Mbps, 100Mbps and 1Gbps data transmission
- IEEE 802.3u (10/100Mbps) and IEEE 802.3ab (1Gbps) compliant

SERIAL ATA (SATA) INTERFACE

- SATA speed up to 3Gb/s (SATA 2.0)
- 9 Serial ATA interfaces compliant with SATA 1.0 specification
 - 4 SATA ports supported by Intel ICH7R
 - * Supports RAID 0/1/5/10
 - 4 SATA ports supported by Silicon Image SiI3114 PCI to SATA controller
 - * PCI Local Bus Specification Rev. 2.3 compliant
 - * APM Specification Rev. 1.0 compliant
 - * PCI IDE Controller Specification Rev. 1.0 compliant
 - * Supports RAID 0/1/10
 - 1 SATA port supported by Genesys Logic GL830 USB to SATA bridge controller
 - * USB Specification Rev. 2.0 compliant
 - * USB Storage Class Specification Rev. 1.0 compliant

IDE

- Supports up to two IDE devices
- Supports Ultra ATA 100/66/33

TRUSTED PLATFORM MODULE (TPM) - optional

- Provides a Trusted PC for secure transactions
- Provides software license protection, enforcement and password protection

BIOS

- AMI BIOS
 - 8Mbit SPI BIOS

REAR PANEL I/O PORTS

- 2 DB-9 RS232/422/485 serial ports
- 1 DB-15 VGA port
- 1 DVI-I port (DVI-D signal)
- 4 RJ45 LAN ports
- 2 USB 2.0/1.1 ports

I/O CONNECTORS

- 2 connectors for 4 external USB 2.0/1.1 ports
- 2 connectors for 2 external RS232/422/485 serial ports
- 1 front audio connector for line-out and mic-in jacks
- 1 LAN LED connector
- 1 PS/2 connector for keyboard/mouse port
- 9 Serial ATA connectors
- 1 40-pin IDE connector
- 1 36-bit GPIO connector
- 1 24-pin ATX power connector
- 1 4-pin 12V power connector
- 1 chassis intrusion connector
- 1 front panel connector
- 3 fan connectors

ENERGY EFFICIENT DESIGN

- ACPI v3.0b specification
- System Power Management
- Wake-On-Events include:
 - Wake-On-PS/2 Keyboard/Mouse
 - Wake-On-USB Keyboard/Mouse
 - Wake-On-LAN
 - RTC timer to power-on the system
- Microsoft®/Intel® APM 1.2 compliant
- AC power failure recovery

DAMAGE FREE INTELLIGENCE

- Monitors CPU/System/AUX temperature and overheat alarm
- Monitors CPU/DIMM/3.3V/5V/12V/1.1V/VBAT voltages and failure alarm
- Monitors CPU/System/2nd fan speed and failure alarm
- Read back capability that displays temperature, voltage and fan speed
- Watchdog timer function

POWER CONSUMPTION

- 111.64 W with Intel® Core™2 Quad Q9400 at 2.66GHz and 2x 2GB DDR3 DIMM

TEMPERATURE

- 0°C to 60°C

HUMIDITY

- 10% to 90%

DIMENSIONS

- microATX form factor
- 244mm (9.6") x 244mm (9.6")

CERTIFICATION

- CE
- FCC Class B
- UL
- RoHS

Packing List

- 1 System board
- 2 USB cables
- 2 Serial ATA data cables
- 2 Serial ATA power cables
- 1 Bracket mounted with a COM port cable
- 1 I/O shield
- 1 DVD
- 1 QR (Quick Reference)

Optional Items

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