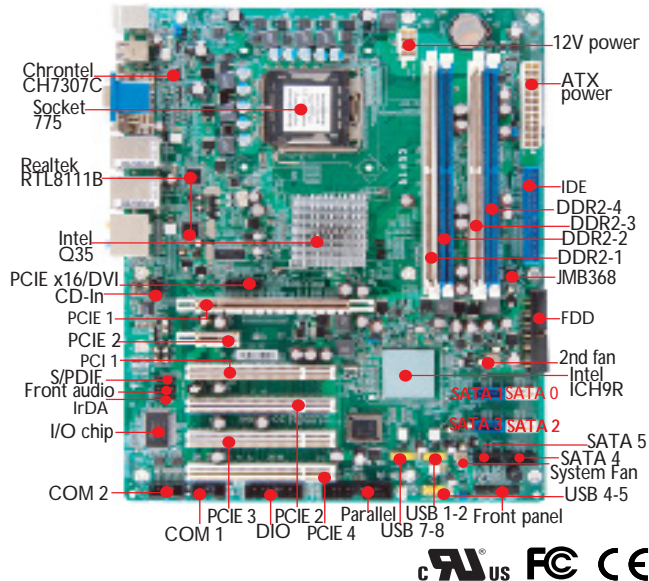


# ATX Form Factor BL630-D/-DR

Intel® Core™ 2 Quad  
Q35 / ICH9(-D), ICH9R(-DR)



## Specifications

### PROCESSOR

- LGA 775 socket for:
    - Intel® Core™ 2 Quad / Intel® Core™ 2 Duo
  - Supports Intel® Enhanced Memory 64 Technology (EMT64T)
  - Supports Enhanced Intel SpeedStep Technology (EIST)
  - 1333\*/1066/800MHz FSB
- \*Available on CPUs that support 1333MHz FSB

### CHIPSET

- Intel® chipset
  - Intel® Q35 Express chipset
  - Intel® ICH9 I/O Controller Hub (-D)
  - Intel® ICH9R I/O Controller Hub (-DR)

### SYSTEM MEMORY

- Four 240-pin DDR2 DIMM sockets
  - Supports dual channel (128-bit wide) memory interface
  - Supports 667MHz and 800MHz DDR2 SDRAM
  - Supports maximum of 8GB system memory using 512Mbit or 1Gbit technology for x8 and x16 devices
- \*ECC DDR2 DIMMs are not supported

### BIOS

- Award BIOS
- 8Mbit flash memory

### ENERGY EFFICIENT DESIGN

- Supports ACPI specification and OS Directed Power Management
- Supports ACPI STR (Suspend to RAM) function
- Wake-On-Events include:
  - Wake-On-PS/2 Keyboard/Mouse
  - Wake-On-USB Keyboard/Mouse
  - Wake-On-LAN and Wake-On-Ring
  - RTC timer to power-on the system
- System power management supported
- Microsoft®/Intel® APM 1.2 compliant
- Soft Power supported - ACPI v1.0a specification
- AC power failure recovery

### DAMAGE FREE INTELLIGENCE

- Monitors CPU/system/AUX temperature and overheat alarm
- Monitors CPU(V)/5V/1.5V/dimm(V)/12V/VBAT(V)/3.3V/V3.3sb(V) 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

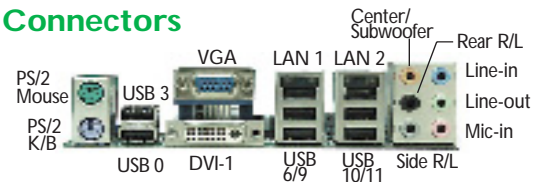
### ONBOARD AUDIO FEATURES

- Realtek ALC882 High Definition audio CODEC
- 7.1 + 2 channel audio output
  - 8 DAC channels support 16/20/24-bit PCM format for 7.1 audio output on rear panel
  - Extra 2 DAC channels support 16/20/24-bit PCM format for multiple stream streaming on front panel

## Features

- Intel® Core™ 2 Quad / Intel® Core™ 2 Duo / Including 45nm technology processors / Q35 (ICH9x)
- 4 dual channel (128-bit wide) memory interface
- 2 Realtek RTL8111B PCI Express Gigabit controllers
- 12 USB 2.0/1.1 ports
- RAID 0, RAID 1, RAID 0+1 and RAID 5 (SATA ports 0/1/2/3 only) (-DR)

## I/O Connectors



- DACs support up to 192kHz sample rate capable for DVD-Audio support
- ADCs support up to 96K sample rate
- S/PDIF-in/out supports 16/20/24/32-bit resolution and up to 192kHz sample rate

### ONBOARD GRAPHICS FEATURES

- Integrated Intel GMA3100
  - Up to 384MB maximum video memory
  - 2048x1536 at 75 Hz maximum resolution
  - Supports DVI port through Serial Digital Video Out (SDVO) interface
  - Dual screen display through CRT and DVI ports

### ONBOARD LAN FEATURES

- Two Realtek RTL8111B PCI Express Gigabit controllers
- Supports 10Mbps, 100Mbps and 1Gbps data transmission
- IEEE 802.3 (10/100Mbps) and IEEE 802.3ab (1Gbps) compliant

### SERIAL ATA INTERFACE

- Supports 4 SATA (Serial ATA) interfaces which are compliant with SATA 1.0 specification (-D)
- Supports 6 SATA (Serial ATA) interfaces which are compliant with SATA 1.0 specification (-DR)
- SATA speed up to 3Gb/s
- RAID 0, RAID 1, RAID 0+1 and RAID 5 (SATA ports 0/1/2/3 only) (-DR)

### IDE INTERFACE

- JMicron JMB368 PCI Express to PATA host controller
- Supports up to 2 UltraDMA 33/66/100Mbps IDE devices

### REAR PANEL I/O PORTS

- 1 mini-DIN-6 PS/2 mouse port
- 1 mini-DIN-6 PS/2 keyboard port
- 1 DB-15 VGA port
- 1 DVI-I port
- 2 RJ45 LAN ports
- 6 USB 2.0/1.1 ports
- 6 audio jacks for center/subwoofer, rear R/L, side R/L, line-in, line-out (front R/L) and mic-in

### I/O CONNECTORS

- 3 connectors for 6 additional external USB 2.0/1.1 ports
- 2 connectors for external serial ports
- 1 DIO connector
- 1 parallel connector
- 1 front audio connector for line-out and mic-in jacks
- 1 CD-in internal audio connector
- 1 S/PDIF-in/out connector
- 1 connector for IrDA interface
- 4 Serial ATA connectors (-D)
- 6 Serial ATA connectors (-DR)
- 1 40-pin IDE connector
- 1 floppy connector
- 1 24-pin ATX power connector
- 1 8-pin 12V power connector
- 1 chassis open connector
- 1 front panel connector
- 3 fan connectors

# ATX Form Factor

# BL630-D/-DR

### EXPANSION SLOTS

- 1 PCI Express x16 slot
- 1 PCI Express x1 slot
- 4 PCI slots

### TEMPERATURE

- 0°C to 60°C

### HUMIDITY

- 10% to 90%

### PCB

- 4 layers, ATX form factor
- 30.5cm (12") x 24.4cm (9.6")

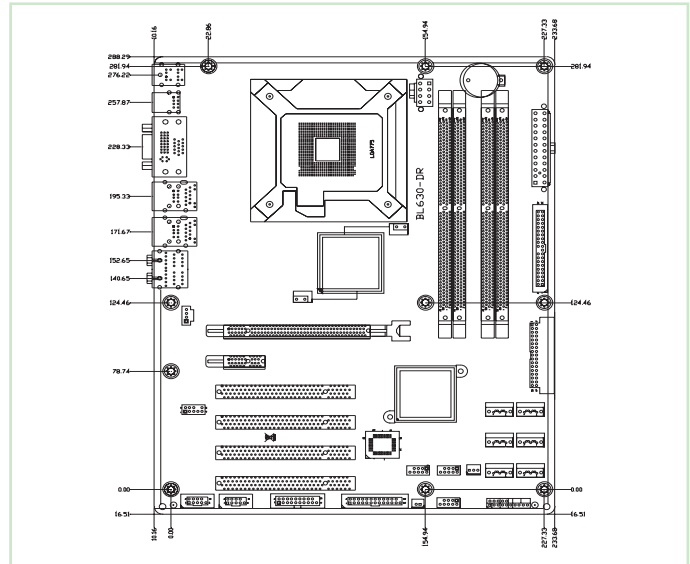
### SAFETY

- UL, cUL, FCC, CE

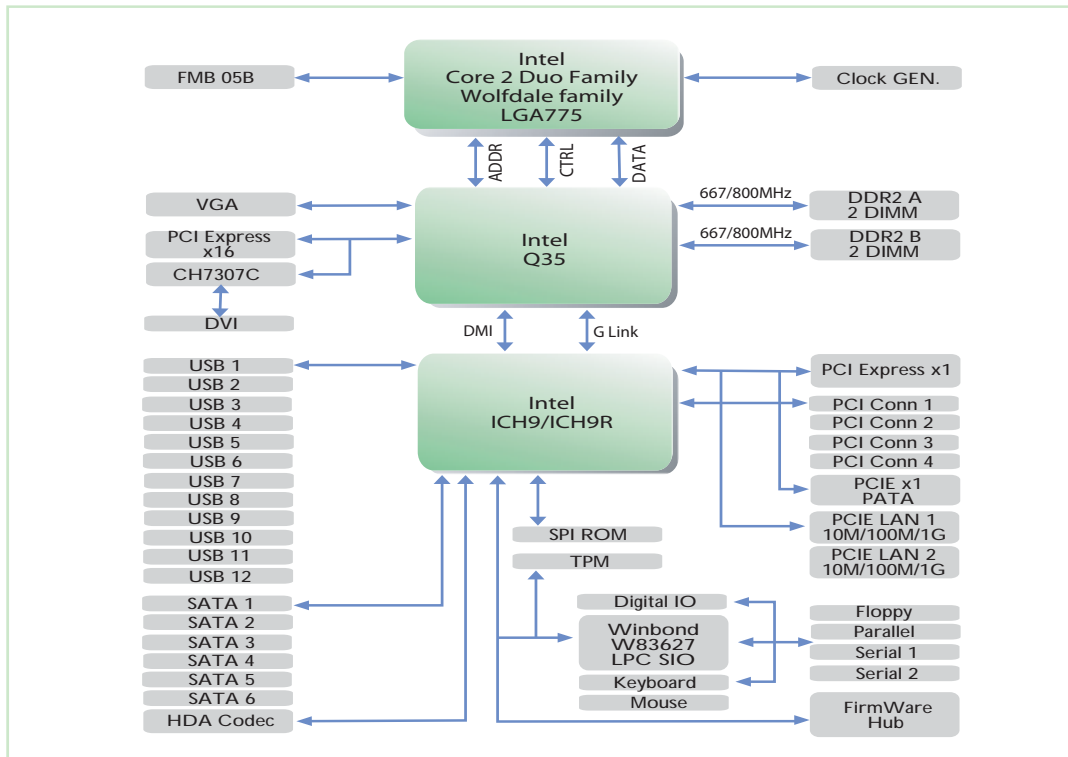
### Packing List

- The system board
- A user's manual
- One IDE cable
- One FDD cable
- Two USB port cables
- Two Serial ATA data cables
- Two Serial ATA power cables
- One "Main Board Utility" CD
- Two RAID driver floppy diskettes (BL630-DR only)
- One I/O shield

### Mechanical Drawing



### Block Diagram



Gaming Machine Application



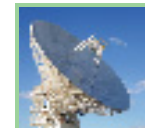
ATM Application



Automation Application



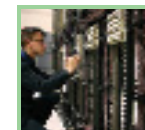
Medical Equipment Application



Tel - Com Application



Transportation Application



Networking Application

### Ordering Information

Model	Description
BL630-D	Intel® ICH9, 4 SATA
BL630-DR	Intel® ICH9R, 6 SATA, RAID 0, 1, 0+1 and 5 (SATA ports 0/1/2/3 only)

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