

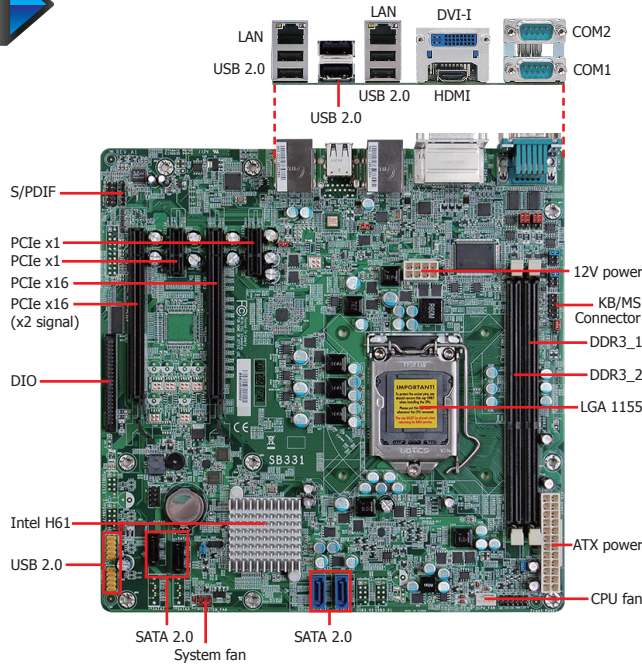


# 3rd/2nd Gen Intel® Core™ microATX

## SB331-D

Desktop

H61



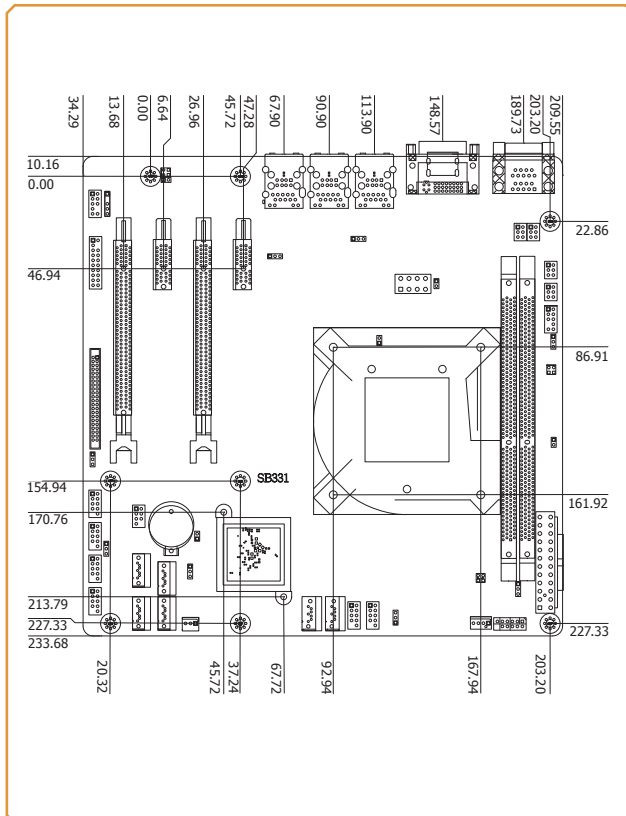
### Features

MEMORY	2 DDR3 DIMM up to 16GB
EXPANSION	2 PCIe x16 (1 x16 and 1 x2 signal) 2 PCIe x1
DISPLAY OUTPUTS	1 HDMI, 1 DVI-I
LAN	2 LAN
COM	2 COM
USB	10 USB 2.0
STORAGE	4 SATA 2.0
DIO	36-bit DIO

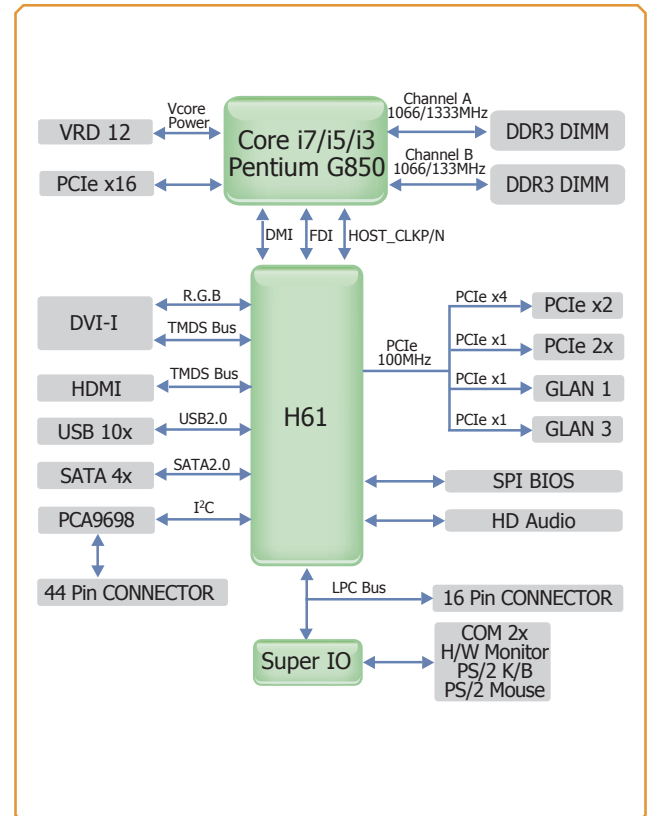
36-bit DIO



### Mechanical Drawing



### Block Diagram



## SB331-D

## ► Specifications

## PROCESSOR

- LGA 1155 socket for:
  - 3rd generation Intel® Core™ processors (22nm process technology) (Rev. A80 or later)
    - : Intel® Core™ i7-3770 (8M Cache, up to 3.9GHz); 77W
    - : Intel® Core™ i5-3550S (6M Cache, up to 3.7GHz); 65W
    - : Intel® Core™ i3-3220 (3M Cache, 3.3GHz); 55W
    - : Intel® Pentium® G2120 (3M Cache, 3.1 GHz); 65W
  - 2nd generation Intel® Core™ processors (32nm process technology)
    - : Intel® Core™ i7-2600 (8M Cache, up to 3.8 GHz); 95W
    - : Intel® Core™ i5-2400 (6M Cache, up to 3.4 GHz); 95W
    - : Intel® Core™ i3-2120 (3M Cache, 3.3 GHz); 65W
    - : Intel® Pentium® G850 (3M Cache, 2.9 GHz); 65W
- Intel® Advanced Vector Extensions (Intel® AVX) Instructions
- Intel® Turbo Boost Technology

## CHIPSET

- Intel® H61 Express Chipset

## SYSTEM MEMORY

- Two 240-pin DDR3 DIMM sockets
- Supports DDR3 1333/1600MHz (3rd generation processors)
- Supports DDR3 1066/1333MHz (2nd generation processors)
- Supports dual channel memory interface
- Supports up to 16GB system memory
- DRAM device technologies: 1Gb, 2Gb and 4Gb DDR3 DRAM technologies are supported for x8 and x16 devices, unbuffered, non-ECC

## EXPANSION SLOTS

- 2 PCIe x16 slots
  - Supports Gen 3.0 (3rd generation processors)
  - Supports Gen 2.0 (2nd generation processors)
  - 1 x16 signal and 1 x2 signal
- 2 PCIe x1 slots (PCI 2.3: supports universal PCI card)

## ONBOARD GRAPHICS FEATURES

- Intel® HD Graphics
- Display ports: HDMI and DVI-I
- HDMI and DVI-I display resolution up to 1920x1200 @ 60Hz
- Supports 6 Graphics Execution Units (EUs)
- Intel® Clear Video Technology
- DirectX Video Acceleration (DXVA) support for accelerating video processing

## ONBOARD AUDIO FEATURES

- Realtek ALC262 2-channel High Definition Audio
- DACs with 100dB SNR; two stereo DACs support 24-bit PCM format for stereo audio playback
- ADCs with 90dB SNR; three stereo ADCs support 20-bit PCM format for multiple input streaming
- S/PDIF audio interface

## ONBOARD LAN FEATURES

- 1 Intel® W82579LM Gigabit Ethernet Phy
- 1 Intel® W82574 PCI Express Gigabit Ethernet controller
- Integrated 10/100/1000 transceiver
- Fully compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab

## SERIAL ATA (SATA) INTERFACE

- 4 SATA 2.0 ports with data transfer rate up to 3Gb/s

## TRUSTED PLATFORM MODULE (TPM) - optional

- Infineon SLB9635
- Provides a Trusted PC for secure transactions
- Provides software license protection, enforcement and password protection

## REAR PANEL I/O PORTS

- 2 DB-9 serial ports
  - Supports RS232/422/485 (RS232 and/or Power)
- 1 DVI-I port
- 1 HDMI port
- 2 RJ45 LAN ports
- 6 USB 2.0/1.1 ports

## ► Packing List

- 1 SB331-D motherboard
- 2 Serial ATA data cables
- 2 USB port cables (with bracket)
- 1 I/O shield
- 1 DVD

## I/O CONNECTORS

- 2 connectors for 4 external USB 2.0/1.1 ports
- 1 PS/2 KB/Mouse connector
- 1 36-bit Digital I/O connector
- 1 front audio connector for line-out and mic-in jacks
- 1 S/PDIF connector
- 4 Serial ATA ports
- 1 24-pin ATX power connector
- 1 8-pin 12V power connector
- 1 chassis intrusion connector
- 1 front panel connector
- 2 fan connectors

## BIOS

- AMI BIOS
- 64Mbit SPI BIOS

## ENERGY EFFICIENT DESIGN

- Supports ErP Lot6 power saving (optional)
- Supports ACPI
- System Power Management
  - Wake-On-Events include:
    - Wake-On-PS/2 KB/Mouse
    - Wake-On-USB KB/Mouse
    - Wake-On-LAN
    - RTC timer to power-on the system
- CPU stopped clock control
- AC power failure recovery

## DAMAGE FREE INTELLIGENCE

- Monitors CPU/system temperature and overheat alarm
- Monitors VCore/5V/3.3V/V\_DIMM/12V/5VSB voltages and failure alarm
- Monitors CPU/system fan speed and failure alarm
- Read back capability that displays temperature, voltage and fan speed
- Watchdog timer function

## POWER CONSUMPTION

- 121.91 W with i7-2600 at 3.40GHz and 2x 2GB DDR3 DIMM

## OS SUPPORT

- Windows XP Professional x86 & SP3 (32-bit)
- Windows XP Professional x64 & SP2 (64-bit)
- Windows 7 Ultimate x86 & SP1 (32-bit)
- Windows 7 Ultimate x64 & SP1 (64-bit)
- Windows 8 Enterprise x86 (32-bit)
- Windows 8 Enterprise x64 (64-bit)

## TEMPERATURE

- Operating: 0°C to 60°C
- Storage: -20°C to 85°C

## HUMIDITY

- 10% to 90%

## DIMENSIONS

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

## CERTIFICATION

- CE
- FCC Class B
- UL
- RoHS

## ► Optional Items

- USB port cable
- Serial ATA data cable
- Serial ATA power cable
- I/O shield
- PS/2 Keyboard/Mouse cable