

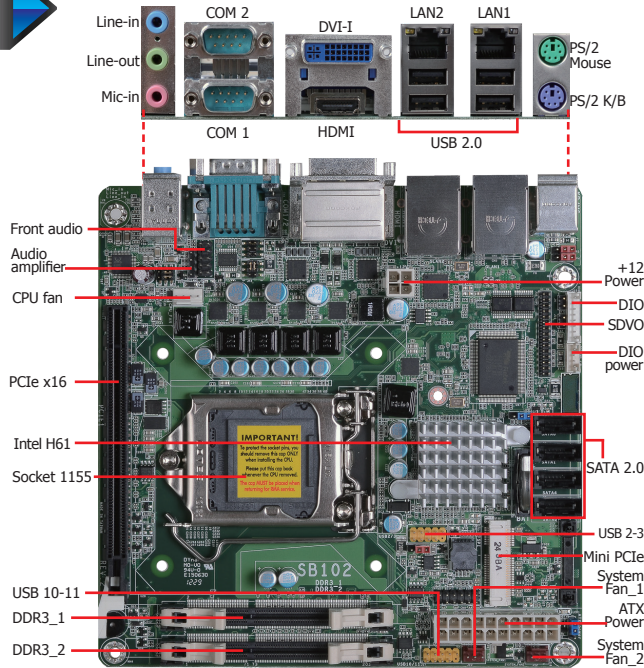


# 3rd/2nd Gen Intel® Core™ Mini-ITX

## SB102-D

Desktop

H61

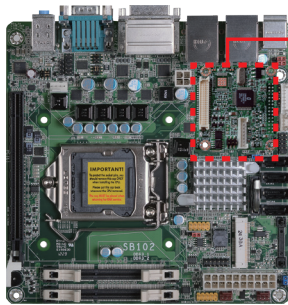


### Features

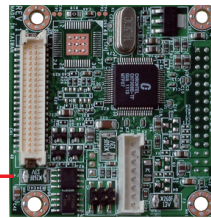
MEMORY	2 DDR3 SODIMM up to 16GB
EXPANSION	1 PCIe x16 1 Mini PCIe
DISPLAY OUTPUTS	1 HDMI, 1 DVI-I
LAN	2 LAN
COM	2 COM
USB	8 USB 2.0
STORAGE	4 SATA 2.0
DIO	8-bit DIO



### SB102-D+ SDVO-LVDS



### SDVO-LVDS Daughterboard (optional)



Top



Bottom

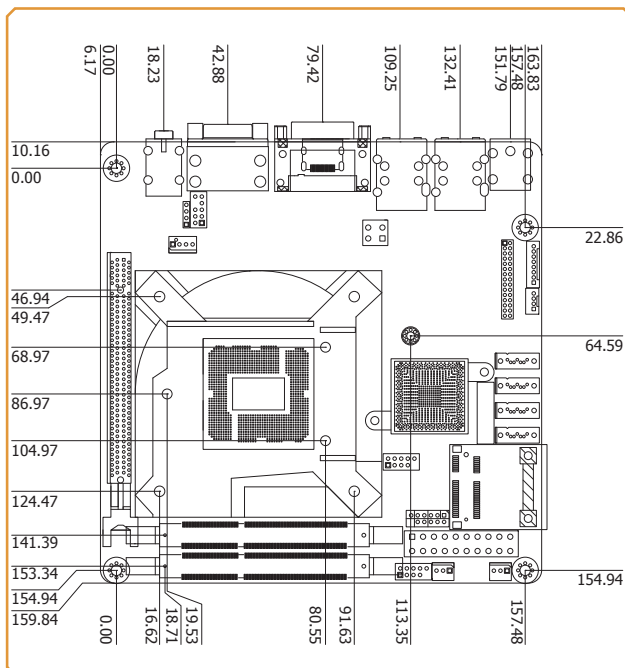
### I/O PORTS

- Chrontel CH7308B
- Supports 18/24-bit 1600x1200 LVDS panel
- 1 LVDS LCD panel connector
- 1 LCD/Inverter power connector
- SDVO interface
- Supports dimming control via hot keys or AP tool

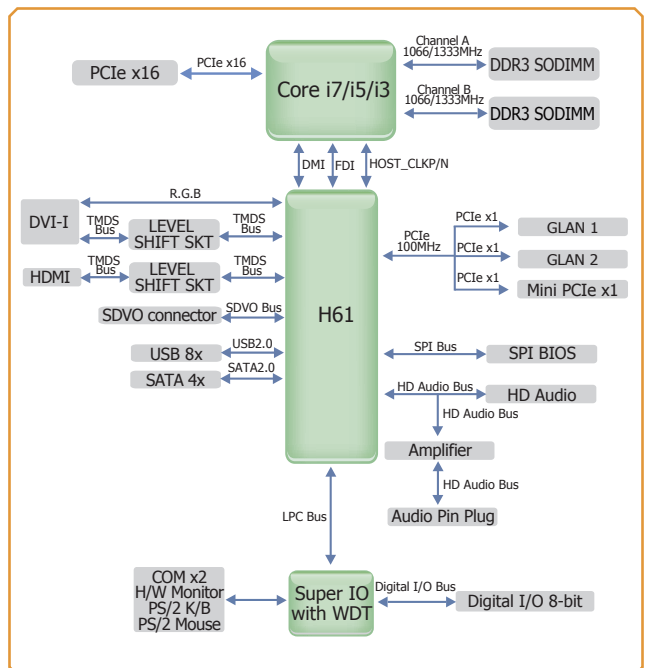
### DIMENSIONS

- 45mm (1.77") x 38mm (1.49")

### Mechanical Drawing



### Block Diagram



## SB102-D

## ► Specifications

## PROCESSOR

- LGA 1155 socket for:
  - 3rd generation Intel® Core™ processors (22nm process technology)
    - : 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 204-pin DDR3 SODIMM sockets
- Supports DDR3 1333/1600MHz (3rd generation processors)
- Supports DDR3 1066/1333MHz (2nd generation processors)
- Supports up to 16GB system memory
- Supports dual channel memory interface
- DRAM device technologies: 1Gb, 2Gb and 4Gb DDR3 DRAM technologies are supported for x8 and x16 devices, unbuffered, non-ECC

## EXPANSION SLOTS

- 1 PCIe x16 slot
  - Supports Gen 3.0 (3rd generation processors)
  - Supports Gen 2.0 (2nd generation processors)
- 1 Mini PCIe slot
  - Supports USB and PCIe signals
  - Supports half size Mini PCIe card

## ONBOARD GRAPHICS FEATURES

- Intel® HD Graphics
- Display ports: HDMI and DVI-I
- HDMI and DVI-I display resolution up to 1920x1200 @ 60Hz
- VGA display resolution up to 2048x1536 pixels with 32-bit color at 75Hz
- Supports 6 Graphics Execution Units (EUs)
- Intel® Clear Video Technology
- DirectX Video Acceleration (DXVA) support for accelerating video processing

## ONBOARD AUDIO FEATURES

- Realtek ALC886 5.1-channel High Definition Audio
- Supports audio amplifier
- High performance DACs with 97dB SNR
- ADCs with 90dB SNR
- 8 stereo DACs support 24-bit PCM format for stereo audio playback
- 2 stereo ADCs support 24-bit PCM format for multiple input streaming

## ONBOARD LAN FEATURES

- Intel® 82579LM Gigabit Ethernet Phy
- Intel® 82574L 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

## REAR PANEL I/O PORTS

- 1 mini-DIN-6 PS/2 mouse port
- 1 mini-DIN-6 PS/2 keyboard port
- 2 DB-9 serial ports
  - 1 RS232/422/485 (RS232 and/or Power)
  - 1 RS232
- 1 HDMI port
- 1 DVI-I port
- 2 RJ45 LAN ports
- 4 USB 2.0/1.1 ports
- Mic-in, line-in and line out jacks

## I/O CONNECTORS

- 2 connector for 4 external USB 2.0/1.1 ports
- 1 SDVO connector for the optional SDVO-LVDS daughterboard
- 1 8-bit Digital I/O connector
- 1 Digital I/O power connector
- 1 front audio connector for line-out and mic-in jacks
- 1 audio amplifier connector
- 4 Serial ATA ports
- 1 20-pin ATX power connector
- 1 4-pin 12V power connector
- 1 chassis intrusion connector
- 1 front panel connector
- 3 fan connectors

## BIOS

- AMI BIOS
  - 32Mbit 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 V<sub>CORE</sub>/5V/3.3V/V<sub>DIMM</sub>/12V/5V<sub>SB</sub> 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

- 138.74 W with i7-2600 at 3.4GHz and 2x 4GB DDR3 SODIMM

## 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

- 0°C to 60°C

## HUMIDITY

- 10% to 90%

## DIMENSIONS

- Mini-ITX form factor
- 170mm (6.7") x 170mm (6.7")

## CERTIFICATION

- CE, FCC Class B, RoHS, UL

## ► Packing List

• 1 SB102-D motherboard
• 1 USB port cable (with bracket)
• 2 Serial ATA data cables
• 1 I/O shield

## ► Optional Items

• USB port cable
• Serial ATA data cable
• Serial ATA power cable
• I/O shield