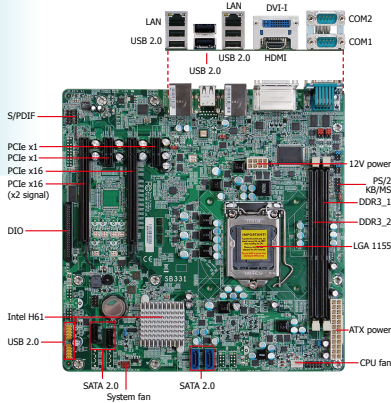


**SB331-D**

**SB331-D DFI**

Industrial Motherboards  
microATX

Specifications



**Features**

<b>CHIPSET</b>	<b>Intel® H61 PCH</b>
<b>CPU</b>	<b>Intel® Core™ i7/i5/i3 Intel® Pentium®</b>
<b>MEMORY</b>	<b>2 DDR3 DIMM up to 16GB</b>
<b>EXPANSION</b>	<b>2 PCIe x16 (1 x16 and 1 x2 signal), 2 PCIe x1</b>
<b>DISPLAY OUTPUTS</b>	<b>1 HDMI, 1 DVI-I</b>
<b>LAN</b>	<b>2 Gigabit LAN</b>
<b>COM</b>	<b>2 COM</b>
<b>USB</b>	<b>10 USB 2.0</b>
<b>SATA</b>	<b>4 SATA 2.0</b>
<b>DIO</b>	<b>36-bit DIO</b>

**Specifications**

- PROCESSOR**
- LGA 1155 socket for:
    - Intel® Core™ i7-2600 (3.4GHz, 95W)
    - Intel® Core™ i5-2400 (3.1GHz, 95W)
    - Intel® Core™ i3-2120 (3.3GHz, 65W)
    - Intel® Pentium® G850
  - New microarchitecture on 32nm process technology
  - 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 1066/1333MHz
  - 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 Gen 2 slots (PCIe 2.0)
    - 1 x16 signal and 1 x2 signal
  - 2 PCIe x1 slots (PCIe 2.0)

- 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
- 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

- ONBOARD GRAPHICS FEATURES**
- Intel® HD Graphics
  - Display ports: HDMI and DVI-I
  - HDMI and DVI-I display resolution up to 1920x1200
  - 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
  - Supports wire management

- 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

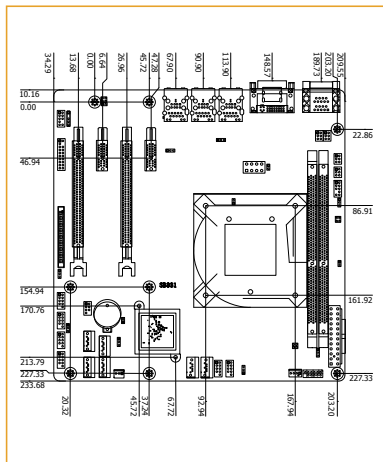
- ENERGY EFFICIENT DESIGN**
- Supports EPP Lot6 power saving (optional)
  - Supports ACPI
  - System Power Management
  - Wake-On-Events include:
    - Wake-On-PS/2 KB/Mouse
    - Wake-On-USB KB/Mouse
    - Wake-On-LAN
    - RTC timer to power-on the system
  - CPU stopped clock control
  - AC power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

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

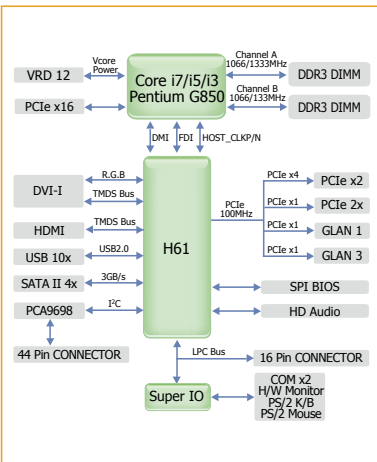
- HUMIDITY**
- 10% to 90%

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

**Mechanical Drawing**



**Block Diagram**



**Packing List**

- 1 SB331-D motherboard
- 2 Serial ATA data cables
- 2 USB port cables (with bracket)
- 1 COM port cable (with bracket)
- 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
- PS/2 Keyboard/Mouse cable

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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