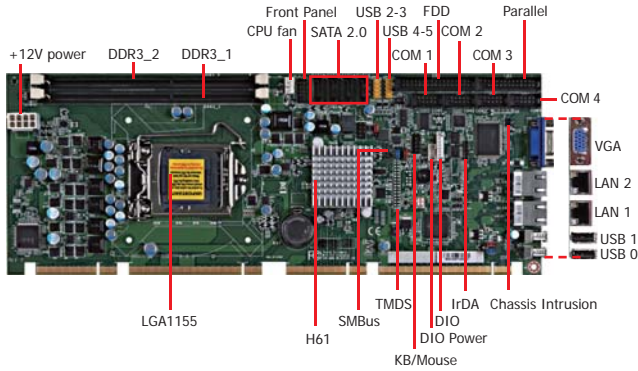


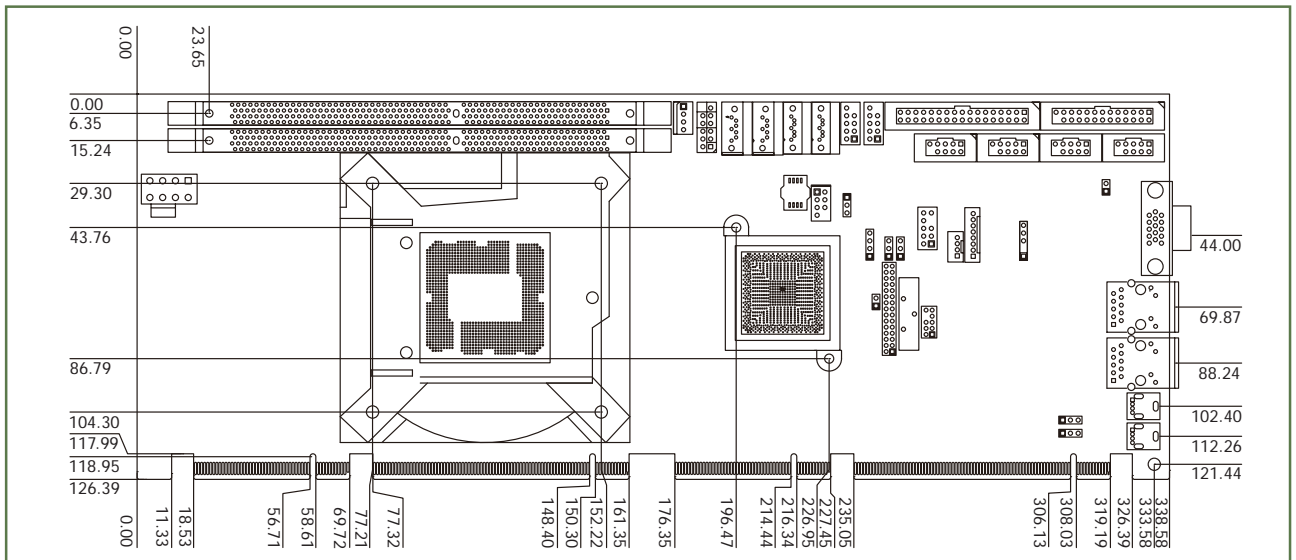
# PIC-H61 Full Size PICMG 1.3



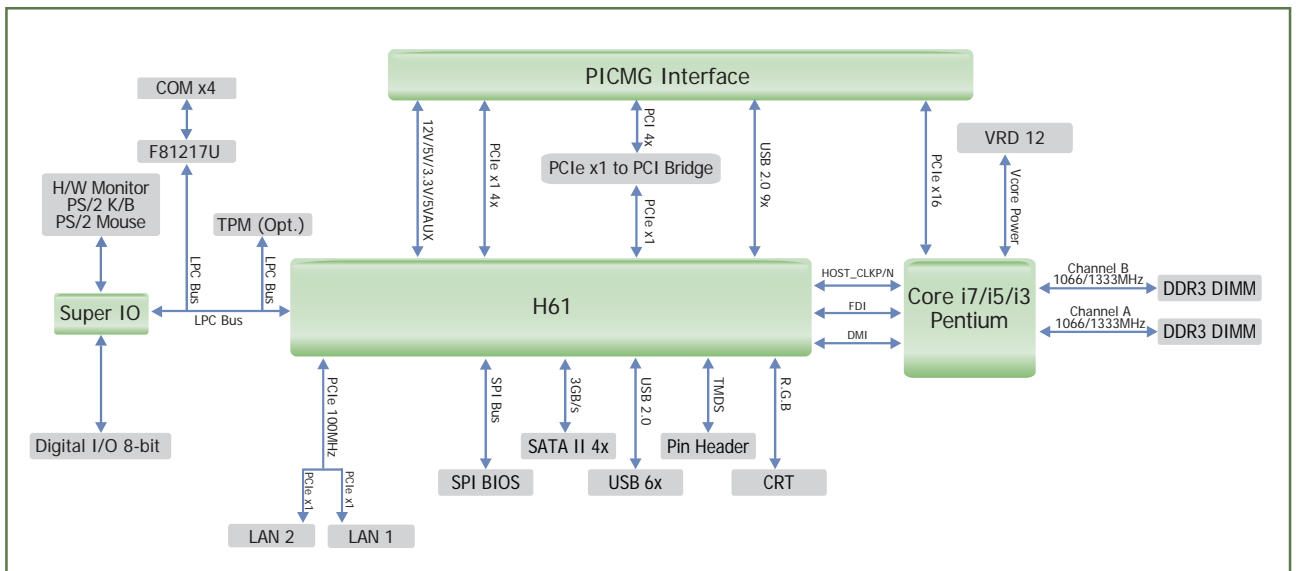
## Features

CHIPSET	Intel® H61
CPU	3rd Generation Intel® Core™ processors 2nd Generation Intel® Core™ processors
MEMORY	2 DDR3 DIMM up to 16GB
EXPANSION (via gold fingers)	1 PCIe x16, 3 PCIe x1, 8 PCI
DISPLAY OUTPUTS	1 DVI-D (optional), 1 VGA
LAN	2 Gigabit LAN ports
COM	4 COM
USB	10 USB 2.0
PARALLEL	1 Parallel
STORAGE	4 SATA 2.0 1 FDD
DIO	8-bit DIO
DIMENSIONS	338mm x 122mm (13.3" x 4.8")

## Mechanical Drawing



## Block Diagram



## 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 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 INTERFACES (via gold fingers)

- 1 PCIe x16 slot
  - Supports Gen 3.0 (3rd generation processors)
  - Supports Gen 2.0 (2nd generation processors)
- 3 PCIe x1
- 8 PCI

### ONBOARD GRAPHICS FEATURES

- Intel® HD Graphics
- Display outputs:
  - 1 VGA port at rear I/O
  - 1 TMDS port pin header supports PIC-DVI module (optional)
- DVI-D supports up to 1920x1080 @ 60Hz resolution (optional)
- VGA supports up to 2048x1536 @ 75Hz resolution
- Supports 6 Graphics Execution Units (EUs)
- Intel® Clear Video Technology
- DirectX Video Acceleration (DXVA) support for accelerating video processing

### ONBOARD LAN FEATURES

- 2 Intel® W82574L PCI Express Gigabit Ethernet controllers
- Integrated 10/100/1000 transceiver
- Fully compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab

### ONBOARD USB FEATURES

- 10 USB 2.0
  - 2 USB at the rear I/O
  - 4 USB via 2 USB connectors
  - 4 USB via the gold fingers

### TRUSTED PLATFORM MODULE (TPM) - optional

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

### SERIAL ATA (SATA) INTERFACE

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

### BIOS

- AMI BIOS
- 64Mbit SPI BIOS

### REAR I/O PORTS

- 1 DB-15 VGA port
- 2 RJ45 LAN ports
- 2 USB 2.0/1.1 ports

### I/O CONNECTORS

- 1 PS/2 KB/Mouse connector
- 4 serial connectors
  - 1 RS232/422/485
  - 3 RS232
- 4 SATA 2.0 ports
- 1 parallel connector
- 1 floppy connector
- 2 connectors for 4 USB 2.0/1.1 ports
- 1 8-bit Digital I/O connector
- 1 SMBus connector
- 1 IrDA connector
- 1 front panel connector
- 1 chassis intrusion connector
- 1 CPU fan connector (supports Smart fan)
- 1 8-pin 12V ATX power connector

### 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

### TEMPERATURE

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

### HUMIDITY

- 10% to 90%

### DIMENSIONS

- 338mm (13.3") x 122mm (4.8")

### CERTIFICATION

- CE
- FCC Class B
- RoHS

## Packing List

- 1 SBC-H61 board
- 2 USB port cables (with bracket)
- 2 COM port cables (with bracket)
- 2 Serial ATA data cables
- 1 DVD
- 1 QR (Quick Reference)

## Optional Items

- USB port cable
- COM port cable
- Serial ATA data cable
- Serial ATA power cable