**G5C900-B**  
**COM Express Board**

**PROCESSOR**
- Intel® Core™ Duo/Solo processor  
  - 667MHz/533MHz system data bus  
- Intel® Core™2 Duo processor  
  - 533MHz system data bus (on Ultra Low Voltage)  
- Processor socket: mPGA478M  
- Cooling options:  
  - Heatspreader  
  - Heat sink with cooling fan

**CHIPSET**
- Intel® chipset  
  - Intel® 945GME Graphics Memory Controller Hub (GMCH)  
  - Intel® 82801GB I/O Controller Hub (ICH7M)

**SYSTEM MEMORY**
- One 200-pin SODIMM socket (1.8V)  
- Supports up to 2GB DDR2 SDRAM  
- Supports 533MHz and 667MHz DDR2 SDRAM

**BIOS**
- SPI interface BIOS (8Mbit)

**GRAPHICS FEATURES**
- Internal graphics features:  
  - DVMT 3.0 support  
  - Intel® Dual-Frequency Graphics Technology  
  - Intel® Smart 2D Display Technology  
  - Dual Independent display pipes  
- Intel® Gen 3.5 Integrated Graphics Engine  
- Integrated graphics interface:  
  - Analog CRT  
  - Integrated 400MHz RAMDAC  
  - Analog monitor supports up to UXGA  
  - LVDS interface  
  - Panel support up to UXGA (1600x1200)  
  - 25MHz-112MHz single/dual channel @ 18bpp, TFT panel type support

**LAN FEATURES**
- One Realtek RTL8111C PCI Express Gigabit controller  
- Supports 10Mbps, 100Mbps and 1Gbps data transmission  
- IEEE 802.3 (10/100Mbps) and IEEE 802.3ab (1Gbps) compliant

**AUDIO FEATURES**
- Supports AC97 digital interface

**EXPANSION INTERFACES**
- 1 PCI Express x16  
- 3 PCI Express x1  
- 4 PCI (Master)

**SERIAL ATA INTERFACE**
- Supports two Serial ATA interfaces which are compliant with SATA 1.0 specification  
- Supports SATA devices with speed up to 1.5Gb/s

**IDE INTERFACE**
- Supports up to 2 IDE devices  
- Supports up to Ultra ATA 100

**DAMAGE FREE INTELLIGENCE**
- Monitors CPU temperature and overheat alarm  
- Monitors CPU Smart fan speed and failure alarm  
- Monitors Vcore/1.8V/1.5V voltages and failure alarm

**CONNECTORS**
- COM Express connectors:  
  - Two 220-pin COM Express standard connectors  
  - 1 CPU fan connector

**TEMPERATURE**
- Operating: 0°C to 60°C  
- Non-operating: -40°C to 85°C

**HUMIDITY**
- Operating: 10% to 90%

**POWER**
- Input: 12V, 5VSB  
- Max load power: 130W

**REGULATORY**
- EMC: CE, FCC Part 15 Class B

**PCB**
- Dimensions:  
  - COM Express basic form factor  
  - 9.5cm (3.74”) x 12.5cm (4.9”)  
- Compliance:  
  - PICMG COM Express R1.0 basic form factor, Type 2

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Heatspreader

Heatspreader on G5C900-B (top view)

Dimensions

Top View

"A" and "A1" mounting holes
• These mounting holes are used to secure the heatspreader onto G5C900-B.
• "A" - Use M2.5 screws with minimum length of 3.7 mm.
• "A1" - Use M2.5 screws with minimum length of 13 mm.

"B" mounting posts
• These mounting posts are used to mount the heatspreader and G5C900-B assembly onto the carrier board.
• Use M2.5 screws with minimum length of 15 mm.

Bottom View of the Heatspreader
• "1" to "5" denote the locations of the thermal pads designed to contact the corresponding components that are on G5C900-B.
• Remove the plastic covering from the thermal pads prior to mounting the heatspreader onto G5C900-B.

Bottom View

Side View
Heat Sink with Cooling Fan

Heat Sink with Cooling Fan on G5C900-B
(top view)

Bottom View of the Heat Sink

• "1" to "3" denote the locations of the thermal pads designed to contact the corresponding components that are on G5C900-B.
• Remove the plastic covering from the thermal pads prior to mounting the heat sink onto G5C900-B.

Dimensions

Top View

"A" mounting posts
• These mounting posts are used to mount the heat sink and G5C900-B assembly onto the carrier board.
• Use M2.5 screws with minimum length of 15 mm.

Side View

Bottom View