DFI-ACP

Revision Control Long Life Cycle

G5C900-B

Basic COM Express Board

PROCESSOR
- Intel® Core™ Duo/Solo processor
  Intel® Core™2 Duo processor
  - 667MHz/533MHz system data bus
- Intel® Celeron® M 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 GMA 950 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)

EXPANSION INTERFACES (TYPE II)
- Supports 1 Gigabit LAN interface
- Supports LPC (Low Pin Count) interface
- Supports SMBus interface
- Supports 2 SATA 2.0 interfaces
- Supports AC'97 audio interface
- Supports 8 USB 2.0 interfaces
- Supports 5 PCIe x1 interfaces
- Supports LVDS 18/24-bit Dual channel interface
- Supports RGB, H-sync/V-sync VGA signals
- Supports 8-bit Digital I/O interface
- Supports 1 IDE interface
- Supports PCI 2.3 interface

SERIAL ATA INTERFACE
- Supports two Serial ATA interfaces 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

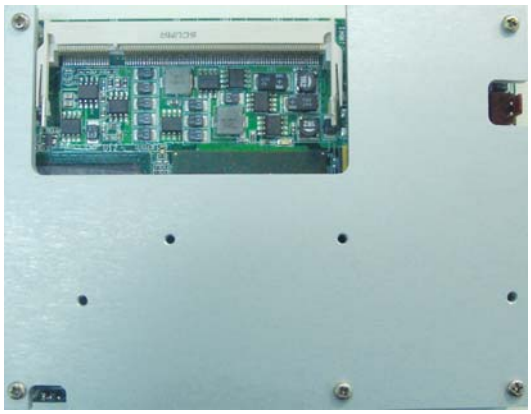
HUMIDITY
- Operating: 10% to 90%

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

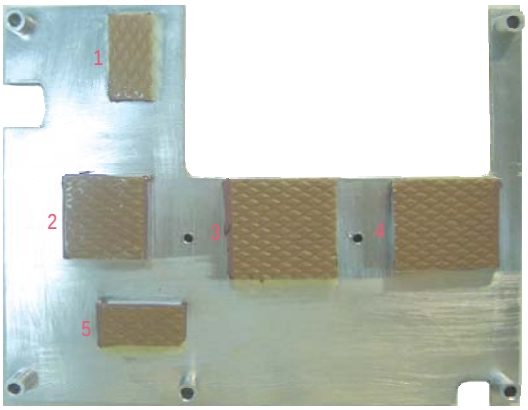
REGULATORY
- EMC: CE, FCC Part 15 Class B

PCB
- Dimensions
  - Basic COM Express form factor
  - 95mm (3.74") x 125mm (4.9")
- Compliance
  - PICMG COM Express R1.0 basic form factor, Type 2

Heatspreader



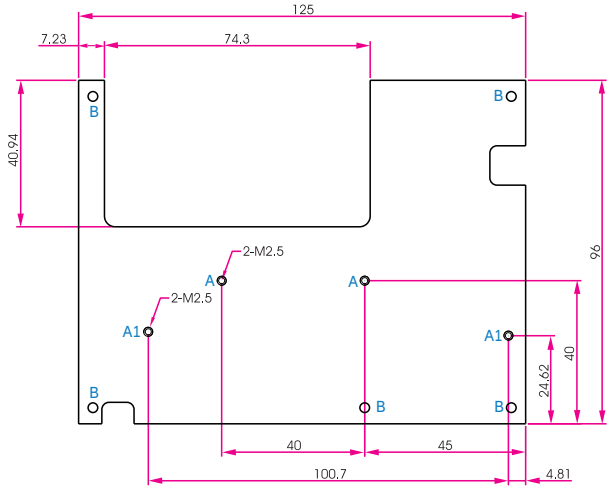
Heatspreader on G5C900-B
(top view)



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.

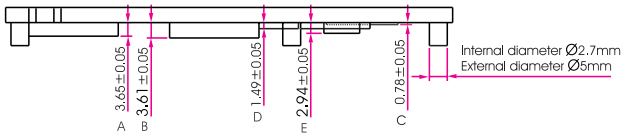
Dimensions

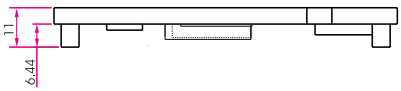


Top View

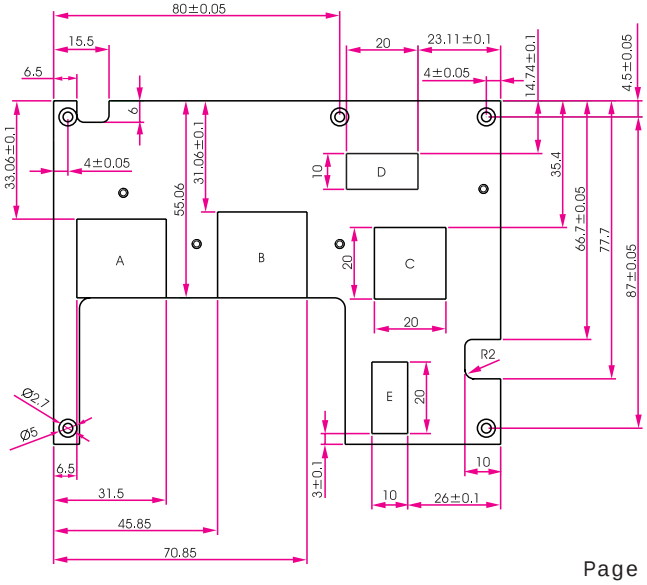
"A" and "A1" mounting holes
- These mounting holes are used to secure the heatspreader onto G5C900-B.
- "A" - Use M2.5 screws with minimum length of 3.7 mm.
  "A1" - Use M2.5 screws with minimum length of 13 mm.

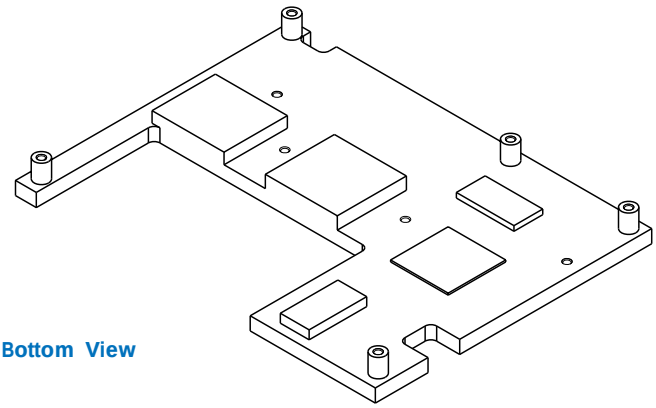
"B" mounting posts
- These mounting posts are used to mount the heatspreader and G5C900-B assembly onto the carrier board.
- Use M2.5 screws with minimum length of 15 mm.





Side View





Bottom View

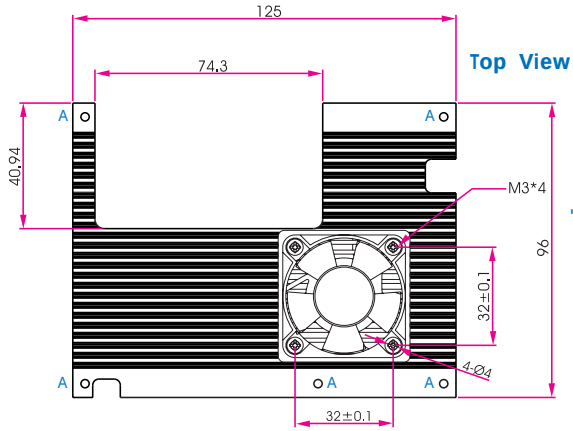
Heat Sink with Cooling Fan

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.

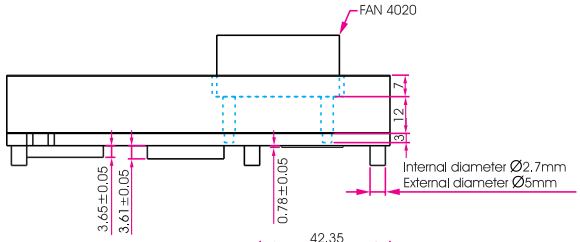
Dimensions

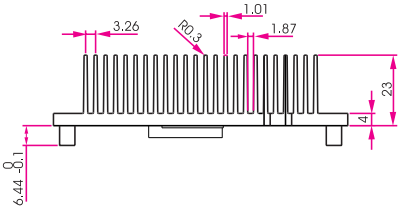


Top View

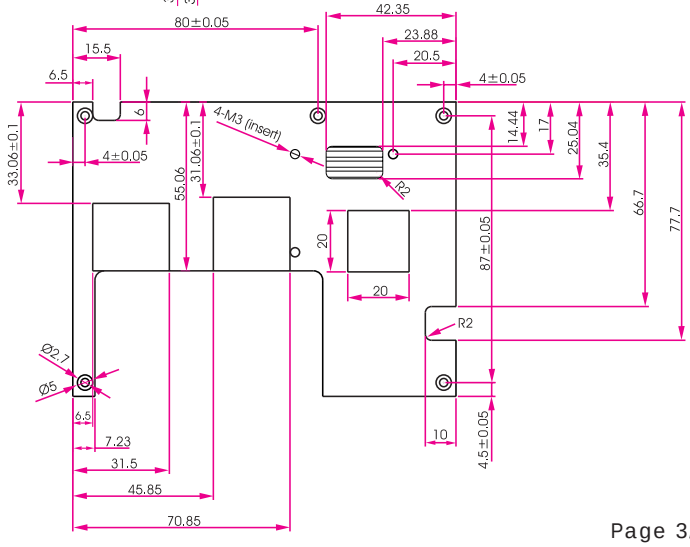
"A" mounting posts

- 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