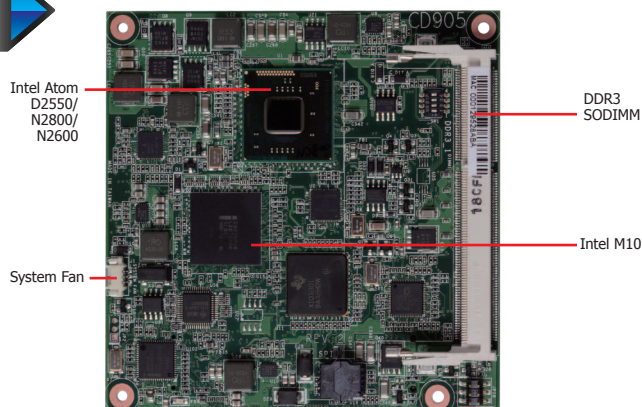




Intel® Atom™ D2550/N2800/N2600
COM Express® Compact

CD905-B Series

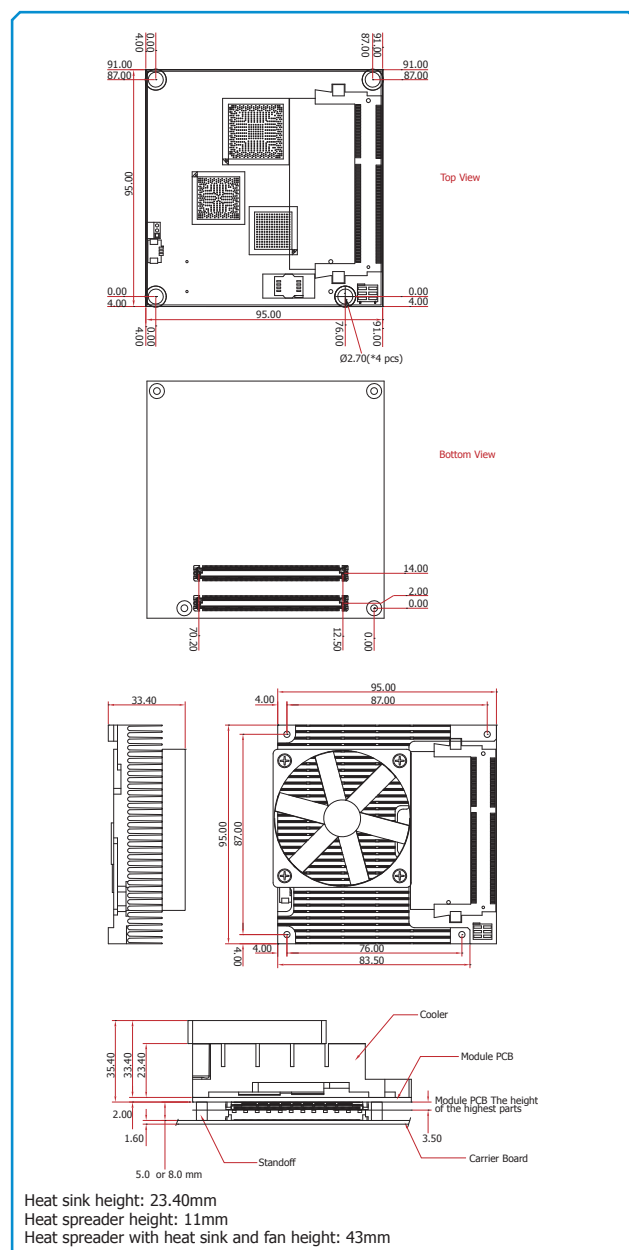
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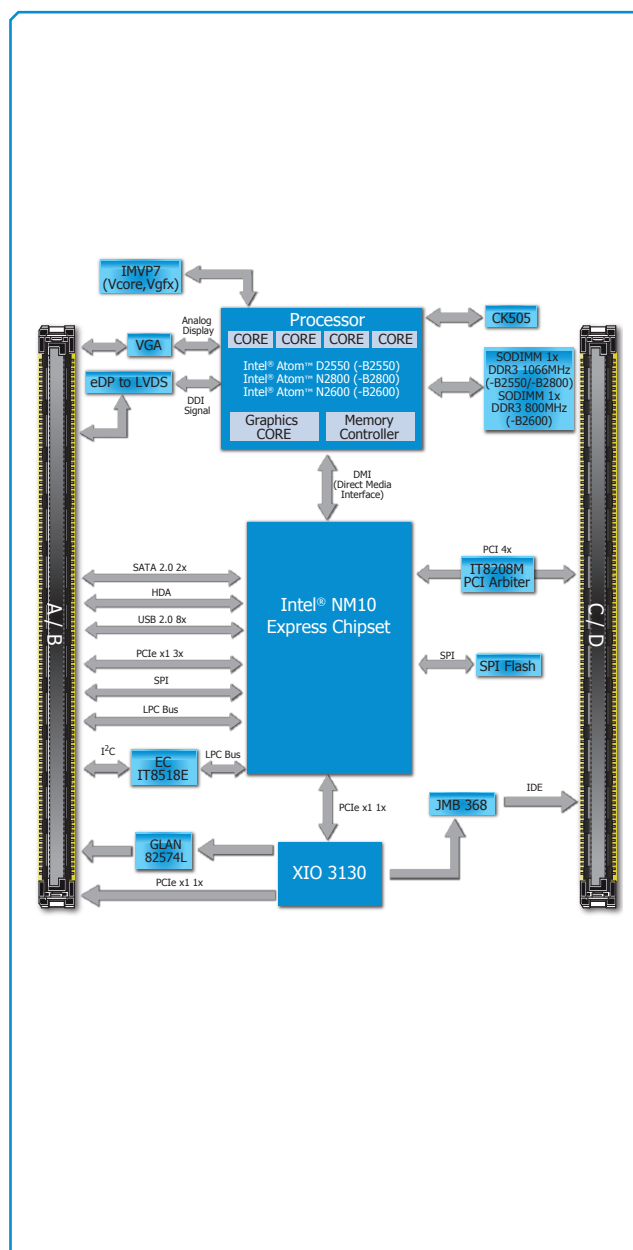
Features

MEMORY	1 DDR3 SODIMM up to 4GB (-B2550/-B2800) 1 DDR3 SODIMM up to 2GB (-B2600)
EXPANSION	4 PCIe x1, 4 PCI 1 LPC, 1 I ² C, 1 IDE 1 VGA, 1 LVDS 8 USB 2.0 2 SATA 2.0 8-bit DIO
LAN	1 LAN
DIMENSIONS	COM Express® R2.0 Compact, Type 2 95mm x 95mm (3.74" x 3.74")

Mechanical Drawing



Block Diagram



CD905-B Series

► Specifications

PROCESSOR

- CD905-B2550:
 - Intel® Atom™ D2550, 1.86GHz, 2x 512K L2, 10W TDP, dual-core
 - Cooling option: heatsink with cooling fan
- CD905-B2800:
 - Intel® Atom™ N2800, 1.86GHz, 2x 512K L2, 6.5W TDP, dual-core
 - Cooling option: heatsink (fanless solution)
- CD905-B2600:
 - Intel® Atom™ N2600, 1.6GHz, 2x 512K L2, 3.5W TDP, dual-core
 - Cooling option: heatsink (fanless solution)

CHIPSET

- Intel® NM10 Express chipset

SYSTEM MEMORY

- One 204-pin DDR3 SODIMM socket
- Supports DDR3 1066MHz (Intel® Atom™ D2550/N2800)
- Supports DDR3 800MHz (Intel® Atom™ N2600)
- Supports single channel memory interface
- Supports up to 4GB system memory (Intel® Atom™ D2550/N2800)
- Supports up to 2GB system memory (Intel® Atom™ N2600)
- DRAM device technologies: 1Gb, 2Gb and 4Gb DDR3 DRAM technologies are supported for x8 and x16 devices, unbuffered, non-ECC

ONBOARD GRAPHICS FEATURES

- Intel® GMA 3650 (Intel® Atom™ D2550/N2800)
- Intel® GMA 3600 (Intel® Atom™ N2600)
- Supports LVDS and VGA interfaces
- LVDS: Chronitel CH7511B, 24-bit, dual channel, resolution up to 1920x1200 @ 60Hz
- VGA: resolution up to 1920x1200 @ 60Hz
- Supports Hardware H.264/AVC, MPEG-2 video decoder, VC-1, DirectX 9, 1080p decoder

ONBOARD AUDIO FEATURES

- Supports High Definition Audio interface

ONBOARD LAN FEATURES

- Intel® 82574 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

- Supports 2 Serial ATA interfaces
- SATA 2.0 with data transfer rate up to 3Gb/s
- Integrated Advanced Host Controller Interface (AHCI) controller

WATCHDOG TIMER (optional)

- Watchdog timeout programmable via software from 1 to 256 seconds

EXPANSION INTERFACES

- Supports 8 USB 2.0 ports
- Supports 4 PCIe x1 interfaces
- Supports 4 PCI interfaces
- Supports LPC interface
- Supports I²C interface
- Supports 1 IDE interface
- Supports 8-bit Digital I/O

DAMAGE FREE INTELLIGENCE

- Monitors CPU temperature and overheat alarm
- Monitors CPU fan speed and failure alarm
- Monitors Vcore/V_{eff}/1.5V voltages and failure alarm
- Watchdog timer function

BIOS

- 16Mbit SPI BIOS

POWER CONSUMPTION

- 24.51 W with D2550 at 1.86GHz and 1x 1GB DDR3 SODIMM

OS SUPPORT

- Windows XP Professional x86 & SP3 (32-bit)
- Windows 7 Ultimate x86 & SP1 (32-bit)

TEMPERATURE

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

HUMIDITY

- 10% to 90%

POWER INPUT

- 12V, 5VSB, VCC_RTC (ATX mode)
- 12V, VCC_RTC (AT mode)

PCB

- Dimensions
 - COM Express® Compact
 - 95mm (3.74") x 95mm (3.74")
- Compliance
 - PICMG COM Express® R2.0, Type 2

CERTIFICATION

- CE
- FCC Class B
- RoHS
- UL

► Ordering Information

Model Name	Part Number	Description
CD905-B2550	777-CD9051-000G	Intel® Atom™ D2550, 1.86GHz, 10W TDP
CD905-B2800	777-CD9051-800G	Intel® Atom™ N2800, 1.86GHz, 6.5W TDP
CD905-B2600	777-CD9051-600G	Intel® Atom™ N2600, 1.6GHz, 3.5W TDP

► Packing List

• 1 CD905-B board
• 1 QR (Quick Reference)
• 1 DVD

► Optional Items

• COM330-B carrier board kit
• COM630-B carrier board kit
• Heat spreader: TBD
• Heat sink: A71-011003-000G
• Heat sink with fan: A71-111006-000G
• Heat spreader with heat sink and fan: TBD