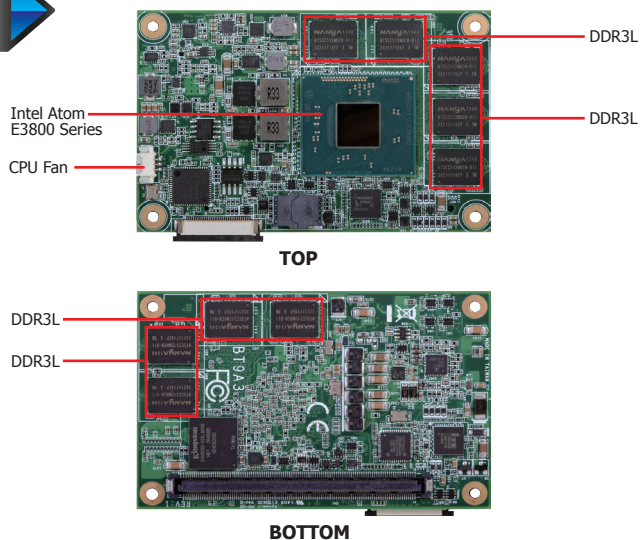




Intel® Atom™ E3800 Series COM Express® Mini

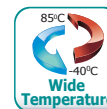
BT9A3 Series

Atom

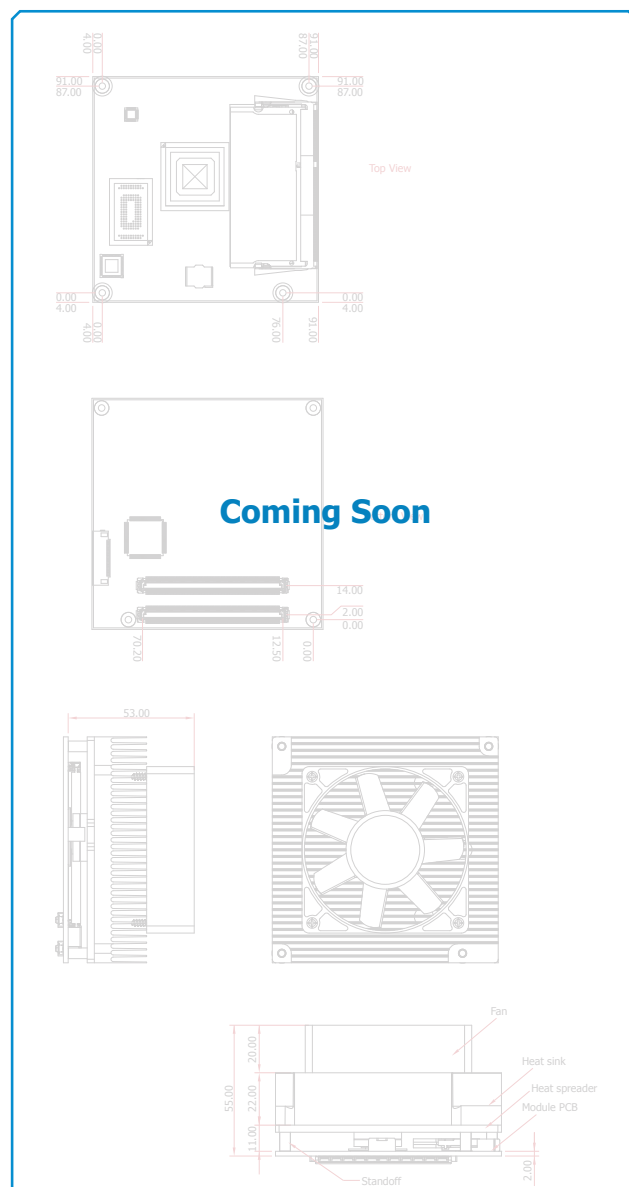


Features

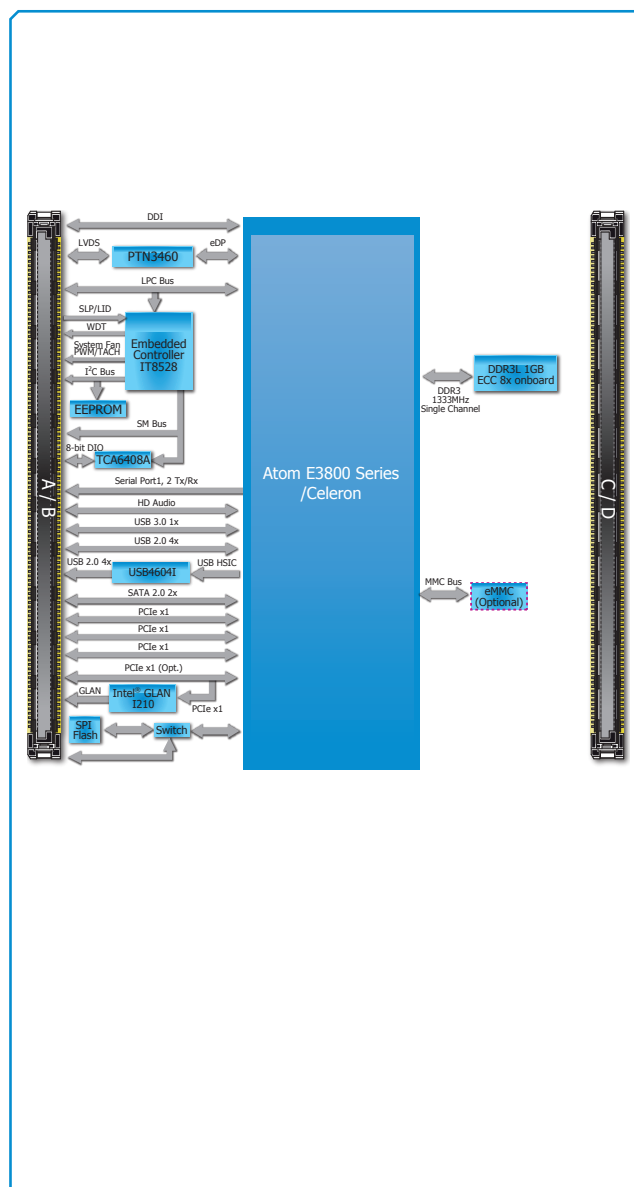
MEMORY	2GB/4GB DDR3L ECC onboard
STORAGE	4GB/8GB/16GB eMMC onboard (optional)
EXPANSION	3 PCIe x1 1 LPC, 1 SMBus, 1 I ² C, 2 serial 1 LVDS, 1 DDI (HDMI/DVI/DP) 1 HDA 9 USB: 1 USB 3.0, 8 USB 2.0 2 SATA 2.0 8-bit DIO
LAN	1 LAN
DIMENSIONS	COM Express® R2.1 Mini, Type 10 84mm x 55mm (3.30" x 2.16")



Mechanical Drawing



Block Diagram



BT9A3 Series

► Specifications

PROCESSOR

- Intel® Atom™/Intel® Celeron® processors
- BGA 1170 packaging technology
- 22nm process technology

Please refer to the Ordering Information below

SYSTEM MEMORY

- 2GB/4GB DDR3L ECC onboard
- Supports DDR3L 1333MHz (-E45/-E27/-J00/-N30/-N07)
- Supports DDR3L 1066MHz (-E26/-E25/-E15)
- Supports single channel memory interface

STORAGE

- Supports 4GB, 8GB and 16GB eMMC onboard (optional)

ONBOARD GRAPHICS FEATURES

- Intel® HD Graphics
- Supports LVDS and DDI interfaces
- LVDS: NXP PTN3460, 24-bit, dual channel, resolution up to 1920x1200 @ 60Hz
- Digital Display Interface: HDMI, DVI and DP
- HDMI, DVI: resolution up to 2560x1600 @ 24Hz
- DP: resolution up to 2560x1600 @ 60Hz
- Supports hardware acceleration for DirectX 11, OCL 1.2, OGL 3.2, H.264, MPEG2, MVC, VC-1, WMV9 and VP8

ONBOARD AUDIO FEATURES

- Supports High Definition Audio interface

ONBOARD LAN FEATURES

- Intel® I210 Gigabit Ethernet Controller
- Integrated 10/100/1000 transceiver
- Fully compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab

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

EXPANSION INTERFACES

- Supports 1 USB 3.0 port
- Supports 8 USB 2.0 ports
 - 4 integrated USB 2.0 ports
 - 1 USB HSIC for 4 USB 2.0 ports
- Supports 3 PCIe x1 (default); or 1 PCIe x4 (PCIe port 3 share with on board LAN by default)
- Supports LPC interface
- Supports I²C interface
- Supports SMBus interface
- Supports 2 serial interfaces (TX/RX)
- Supports 8-bit Digital I/O

WATCHDOG TIMER

- Watchdog timeout programmable via software from 1 to 255 seconds

DAMAGE FREE INTELLIGENCE

- Monitors CPU/system temperature and overheat alarm
- Monitors Vcore/Vg_{fx}/VDDR/3V3 voltages and failure alarm
- Monitors CPU/system fan speed and failure alarm
- Watchdog timer function

BIOS

- 16Mbit SPI BIOS

POWER CONSUMPTION

- TBD

OS SUPPORT

- TBD

TEMPERATURE

- Operating
 - Atom: 0°C to 60°C, -20°C to 70°C, -40°C to 85°C
 - Celeron: 0°C to 60°C
- Storage: -40°C to 85°C

HUMIDITY

- 5% to 90%

POWER INPUT

- 4.75V~20V, 5VSB, VCC_RTC (ATX mode)
- 4.75V~20V, VCC_RTC (AT mode)

PCB

- Dimensions
 - COM Express® Mini
 - 84mm (3.30") x 55mm (2.16")
- Compliance
 - PICMG COM Express® R2.1, Type 10

► Ordering Information

Model Name	Temperature	Memory	eMMC	Processors
BT9A3	- B	2	0	- E45
	B: 0°C to 60°C E: -20°C to 70°C T: -40°C to 85°C	2: 2GB 4: 4GB	0: None 4: 4GB 8: 8GB 1: 16GB	E45: Intel® Atom™ E3845, Quad Core, 2M Cache, 1.91GHz, 10W E27: Intel® Atom™ E3827, Dual Core, 1M Cache, 1.75GHz, 8W E26: Intel® Atom™ E3826, Dual Core, 1M Cache, 1.46GHz, 7W E25: Intel® Atom™ E3825, Dual Core, 1M Cache, 1.33GHz, 6W E15: Intel® Atom™ E3815, Single Core, 0.5M Cache, 1.46GHz, 5W J00: Intel® Celeron® J1900, Quad Core, 2M Cache, up to 2.42GHz, 10W N30: Intel® Celeron® N2930, Quad Core, 2M Cache, up to 2.16GHz, 7.5W N07: Intel® Celeron® N2807, Dual Core, 1M Cache, up to 2.16GHz, 4.3W

► Packing List

- 1 BT9A3 board
- 1 QR (Quick Reference)
- 1 DVD

► Optional Items

- COM100-B carrier board kit
- Heat sink: TBD
- Heat sink with fan: TBD