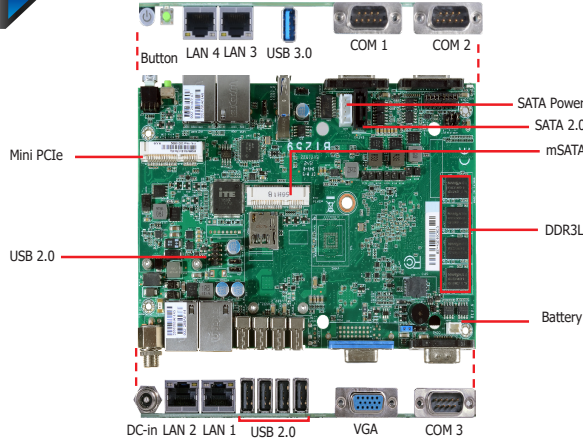


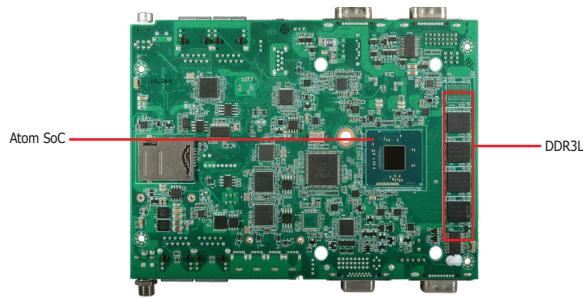


**Intel® Atom™ E3800 Series  
4" SBC**

**BT259**



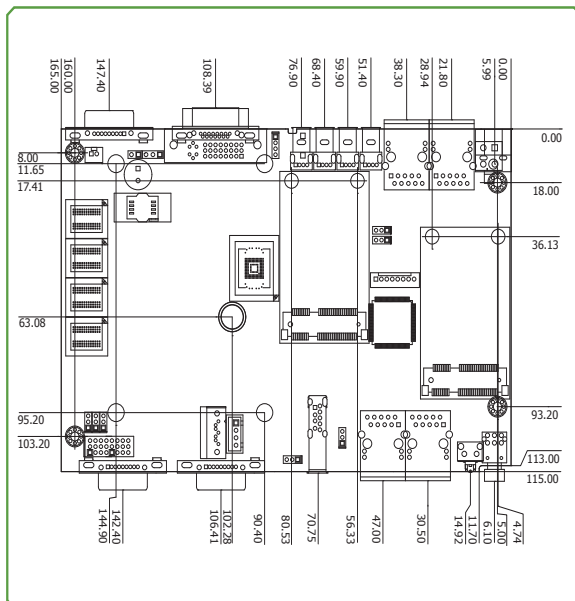
Bottom View



Top View



**Mechanical Drawing**

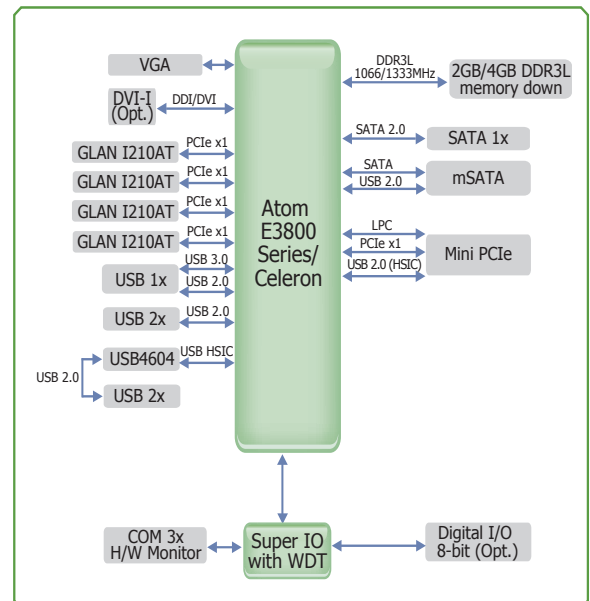


**Features**

MEMORY	2GB/4GB DDR3L memory down
EXPANSION	2 Mini PCIe
DISPLAY OUTPUTS	1 VGA or 1 DVI-I (option)
LAN	4 LAN
COM	3 COM
USB	6 USB: 1 USB 3.0, 5 USB 2.0
STORAGE	1 SATA 2.0, mSATA
DIMENSIONS	165mm x 115mm (6.49" x 4.53")



**Block Diagram**



Intel® Atom™ E3800 Series  
4" SBC



# BT259

**Specifications** \* Optional and is not supported in standard model. Please contact your sales representative for more information.

**PROCESSOR**

- Intel® Atom™ E3845, Quad Core, 2M Cache, 1.91GHz, 10W
- Intel® Celeron® J1900, Quad Core, 2M Cache, 2GHz (2.41GHz), 10W
- BGA 1170 packaging technology
- 22nm process technology

**SYSTEM MEMORY**

- Supports 4GB DDR3L onboard 1333MHz (E3845)
- Supports 2GB DDR3L onboard 1066MHz (J1900)
- Supports single channel memory interface

**EXPANSION SLOTS**

- 2 Mini PCIe slots
- 1 full size slot for communication
- : Supports PCIe, USB, and 3G signals for 3G or GPRS module
- 1 full size slot for storage
- : Supports mSATA module

**ONBOARD GRAPHICS FEATURES**

- Intel® HD Graphics
- Display ports: 1 VGA or 1 DVI-I (option)
- DVI: resolution up to 1920x1080 @ 60Hz
- VGA: 24-bit, resolution up to 2560x1600 @ 60Hz

**ONBOARD LAN FEATURES**

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

**STORAGE**

- 1x 2.5" SATA drive bay
- SATA 2.0 port with data transfer rate up to 3Gb/s
- 1 mSATA module via a Mini PCIe slot

**FRONT PANEL I/O PORTS**

- 2 DB-9 serial ports
- supports RS232/422/485
- One of the ports supports 8-bit DIO
- 1 USB 3.0 (Type A) port
- 2 RJ45 LAN ports
- 1 status LED
- 1 HDD LED
- 1 reset button
- 1 power button

**REAR PANEL I/O PORTS**

- 1 DB-9 serial port
- supports RS232/422/485
- 1 VGA port; or 1 DVI-I port (option)
- 4 USB 2.0 (Type A) ports
- 2 RJ45 LAN ports
- 1 16~24V DC-in jack

**I/O CONNECTORS**

- 1 connectors for USB 2.0
- 1 Serial ATA connector
- 1 Serial ATA power connector

**BIOS**

- AMI BIOS
- 64Mbit SPI BIOS

**WATCHDOG TIMER**

- Watchdog timeout programmable via software from 1 to 255 seconds

**ENERGY EFFICIENT DESIGN**

- Supports ACPI
- System Power Management
- Wake-On-Events include:
  - Wake-On-USB KB/Mouse\*
  - Wake-On-LAN
  - RTC timer to power-on the system
- AC power failure recovery

**POWER CONSUMPTION**

- BT259-45-I-B-4: 21.8W with E3845 at 1.91GHz and 4GB DDR3L memory down

**OS SUPPORT**

- Windows 7, WES 7, Windows 8.1, WES 8
- Linux

Note: Windows 10 will be available upon request. Please contact DFI for more information.

**TEMPERATURE**

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

**HUMIDITY**

- 5% to 90%

**MTBF**

- 367,838 hrs @ 25°C; 204,902 hrs @ 45°C
- Calculation model: Telcordia Issue 2, Method I Case 3
- Environment: GB, GC – Ground Benign, Controlled

**DIMENSIONS**

- 4" board
- 165mm (6.49") x 115mm (4.53")

**CERTIFICATION**

- CE, FCC Class B, RoHS

**Ordering Information**

Model Name	Processor	Memory	RS232/422/485	Power	Thermal	Temperature
BT259-45-I-B-4	Intel® Atom™ E3845, Quad Core, 2M Cache, 1.91GHz, 10W	4GB	3	16~24V DC-in	Fanless	0°C to 60°C
BT259-19-I-B-2	Intel® Celeron® J1900, Quad Core, 2M Cache, 2GHz (2.41GHz), 10W	2GB	3	16~24V DC-in	Fanless	0°C to 60°C

**Packing List**

- 1 BT259 board
- 1 Serial ATA data with power cable: A81-002008-000G
- 1 Heat spreader: A31-030022-200G

**Optional Items**

- USB port cable: A81-001032-016G
- Power adapter (120W, 19V): 671-112009-100G

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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