

Q7 CPU Module with Onboard Intel® Atom™ E3800 or Celeron® N2807 Product Family Processor SoC



## Features

- Intel® Atom™ E3800 or Celeron® N2807 Product Family Processor SoC
- Onboard DDR3L 2 GB Memory
- Gigabit Ethernet x 1
- 18/24-bit Single Channel LVDS LCD/eDP, DDI x 1 (Default DP Signal) High Definition Audio Interface
- SATA x 2 (One for SSD)
- USB2.0 x 6, USB3.0 x 1, GPIO 8-bit, PCI-Express [x1] x 3
- Qseven Rev. 2.0, 70mm x 70mm



## Specifications

System	
Form Factor	Q7, 70mm x 70mm
Processor	Intel® Atom™ Processor SoC N2807: Dual Core 1.58GHz/4.3W E3825: Dual Core 1.33GHz/6W E3845: Quad Core 1.91GHz/10W
System Memory	Onboard DDR3L 2 GB
Chipset	Intel® Atom™ E3800 or Celeron® N2807 Product Family Processor SoC
I/O Chipset	Intel® Atom™ E3800 or Celeron® N2807 Product Family Processor SoC
Ethernet	Intel® I211AT for 10/1000/1000Base-TX
BIOS	AMI I210 or I211 BIOS, Legacy free BIOS
Wake On LAN	Yes
Watchdog Timer	ITE IT8528VG
H/W Status Monitoring	Supports CPU Temperature Monitoring.
Expansion Interface	PCI Express [x1] x 3 SMBUS x 1 SPI x 1 SDIO x 1 DDI x 1 I2C x 1
Power Requirement	Normal : + 5V
Power Consumption (Typical)	E3845, Full load, 2.72A@5V
Board Size	2.75" x 2.75" (70mm x 70mm)
Gross Weight	0.44 lb (0.2 kg)
Operation Temperature	32 °F ~ 140 °F (0 °C ~ 60 °C) -40 °F ~ 185 °F (-40 °C ~ 85 °C) by E3815
Storage Temperature	-40 °F ~ 176 °F (-40 °C ~ 85 °C)
Operation Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	—
Display	
	Supports CRT/LCD Simultaneous/Dual view displays
Chipset	Intel® Atom™ E3800 Product Family Processor SoC
Memory	—
Resolution	LCD: up to 1366 x 768@ single LVDS HDMI: Up to 1920 x 1080
LCD Interface	18/24-bit single channel LVDS
I/O	
Storage	SATA x2 (one may share with onboard SSD)
Serial Port	4-Wire UART x1
USB	USB2.0 x 6, USB3.0 x 1
PS/2 Port	—
Audio	High definition audio
GPIO	8-bit GPIO
Others	SMBus, I2C, LPC, SPI, SDIO

## Packing List

- M2.5 Screws x 2
- Product CD
- AQ7-BT

## Optional Accessories

- **ECB-970-A10**  
Q7 Carrier Board for x86
- **PER-A143**  
Heat Spreader, For AQ7-BT, Onboard CPU
- **PER-A144**  
Heatsink, for AQ7-BT, To be used with Heat Spreader

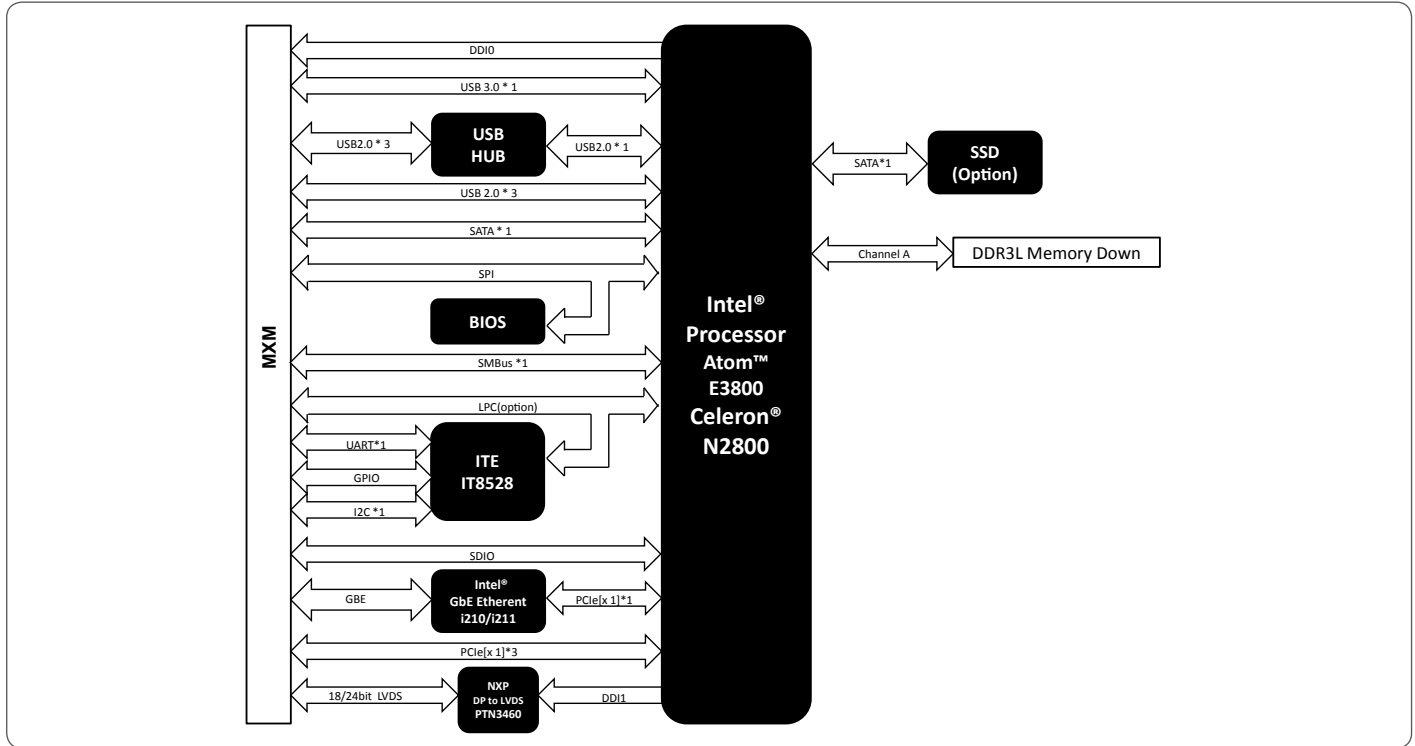
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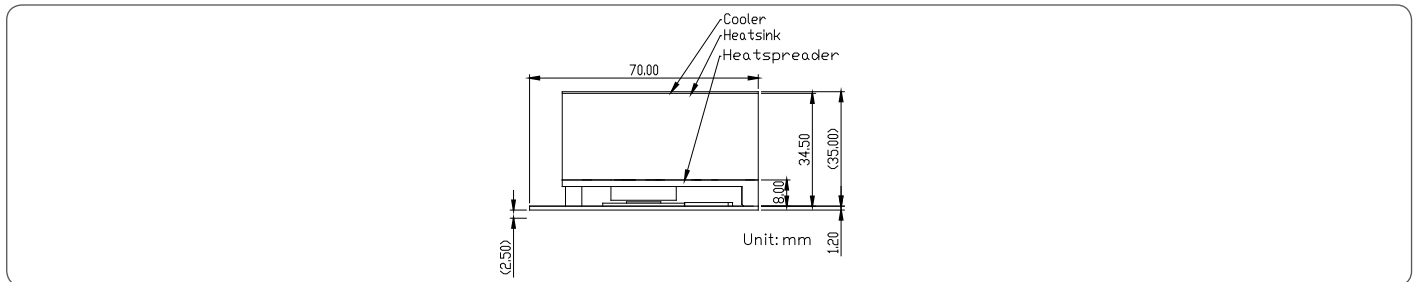
# AQ7-BT

## Block Diagram



## Dimension

Unit: mm



## Ordering Information

Part Number	Form Factor	CPU	Memory	Display	LVDS	Storage	LAN	USB	UART	Expansion Slot	Power	Temp
AQ7-BT-A10-0001	Qseven2.0	N2807	Onboard 2 GB DDR3L	DDIx1	18/24b 1Ch	SATA x 2	GbE x 1	USB2.0 x 6 USB3.0 x 1	4-wire x 1	PCIe[x1] x 3, GPIO x 8, SMBus x 1, SDIO, I2C, LPC	5V	0°C-60°C
AQ7-BT-A10-0002	Qseven2.0	E3825	Onboard 2 GB DDR3L	DDIx1	18/24b 1Ch	SATA x 1 8GB SSD MLC onboard	GbE x 1	USB2.0 x 6 USB3.0 x 1	4-wire x 1	PCIe[x1] x 3, GPIO x 8, SMBus x 1, SDIO, I2C, LPC	5V	0°C-60°C
AQ7-BT-A10-0003	Qseven2.0	E3845	Onboard 2 GB DDR3L	DDIx1	18/24b 1Ch	SATA x 1 4GB SSD SLC onboard	GbE x 1	USB2.0 x 6 USB3.0 x 1	4-wire x 1	PCIe[x1] x 3, GPIO x 8, SMBus x 1, SDIO, I2C, LPC	5V	0°C-60°C

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