

## Qseven CPU Module with Onboard Intel® Atom™ E3800 Product Family Processor SoC



Intel® Atom™ E3800/ Celeron®

## Features

- Intel® Atom™ E3800 Product Family Processor SoC
- Onboard DDR3L up to 4 GB Memory
- Gigabit Ethernet x 1
- 18/24-bit Single Channel LVDS LCD/eDP, DDI
- High Definition Audio Interface
- SATA x 2, One for Onboard SSD
- USB 2.0 x 6, USB 3.0 x 1, LPC/GPIO, PCI-Express [x1] x 3
- Qseven Rev. 2.0, 70mm x 70mm



## Specifications

System	
Form Factor	Qseven Rev.2.0
CPU	Intel® Atom™ SOC Processor
CPU Frequency	up to 1.91GHz
Chipset	Intel® Atom™ E3800 series
Memory Type	Onboard DDR3L
Max. Memory Capacity	2GB (Optional to 4 GB)
BIOS	AMI BIOS
Wake on LAN	no
Watchdog Timer	255 Levels
Power Requirement	+5V
Power Supply Type	AT/ ATX
Power Consumption (Typical)	2A@5V, full load, E3845
Dimension	2.75" x 2.75" (70mm x 70mm)
Operating Temperature	32 °F ~ 140 °F (0 °C ~ 60 °C) -40 °F ~ 185 °F (-40 °C ~ 80 °C) by E3825
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	—
Certification	CE/FCC
Display	
VGA/LCD Controller	Intel® Atom™ SOC
Video Output	24-bit LVDS LCD, DP x 1
Backlight inverter supply	—
I/O	
Ethernet	Intel® I210IT, 10/1000/1000Base-TX
Audio	High Definition Audio Interface
USB Port	USB 2.0 x 6, USB 3.0 x 1
Serial Port	4-Wire UART x 1, 2-wire UART x 1
Parallel Port	—
HDD Interface	SATA x 2, 1 share with onboard SSD
FDD Interface	—
SSD	Optional
Expansion Slot	PCI Express [x1] x 3 LPC Bus x 1(shared with GPIO) SMBus x 2
DIO	GPIO 8 bit (shared w/ LPC, optional)
TPM	—
Touch	—

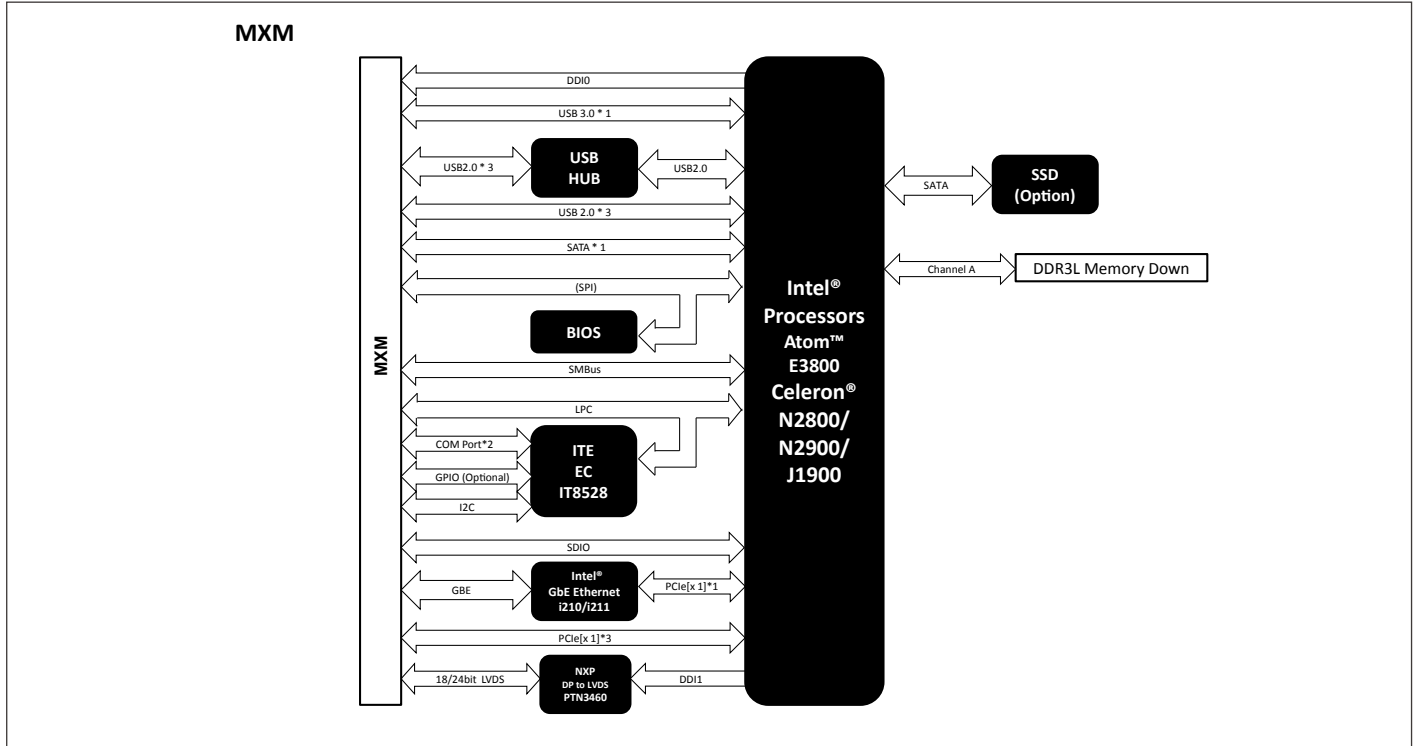
## Packing List

- M2.5 Screws x 4
- Product CD
- AQ7-BT

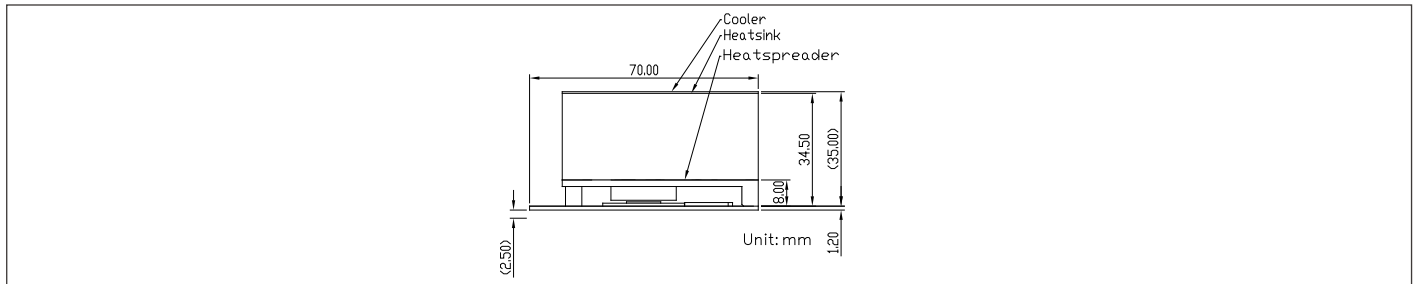
## Optional Accessories

- **ECB-970-A10**  
Q7 Carrier Board for x86
- **AQ7-BT-HSP01**  
Heat Spreader, For AQ7-BT, Onboard CPU
- **PER-A144**  
Heatsink, for AQ7-BT, to be used with Heat Spreader
- **TF-PER-A096**  
Active Cooler, for AQ7 Module, to be used with Heat Spreader

## Block Diagram



## Dimension Unit: mm



## Ordering Information

Part Number	Form Factor	CPU	Memory	Display	LVDS	Storage	LAN	USB	Expansion	Power	Temperature	Other
AQ7-BT-A20-0001	Qseven 2.0	N2807, 1.58GHz	2GB DDR3L	LVDS, DDI	24bit,1CH	SATA x 1, 8 GB SSD	GbE x 1	USB3.0 x 1, UBS2.0 x 6	PCIe[x1] x 3	+5V	0°C ~ 60°C	I2C, LPC or (GPIO), SDIO, UART x 2 (4-wire and 2-wire)
AQ7-BT-A20-0002	Qseven 2.0	E3825, 1.33GHz	2GB DDR3L	LVDS, DDI	24bit,1CH	SATA x 1, 8 GB SSD	GbE x 1	USB3.0 x 1, UBS2.0 x 6	PCIe[x1] x 3	+5V	0°C ~ 60°C	I2C, LPC or (GPIO), SDIO, UART x 2 (4-wire and 2-wire)
AQ7-BT-A20-0003	Qseven 2.0	E3845, 1.91GHz	4GB DDR3L	LVDS, DDI	24bit,1CH	SATA x 1, 8 GB SSD	GbE x 1	USB3.0 x 1, UBS2.0 x 6	PCIe[x1] x 3	+5V	0°C ~ 60°C	I2C, LPC or (GPIO), SDIO, UART x 2 (4-wire and 2-wire)