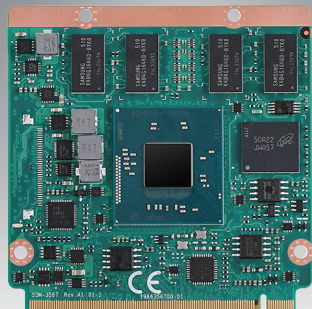


# SOM-3567

## Intel® Atom™ E3800 & Celeron® Processor QSeven CPU Module



Windows Embedded

iManager WISE-PaaS/RMM



### Features

- Intel® Atom® E3800 and Celeron® Processor Series
- Qseven® 2.1 Specification Compatible
- Onboard Dual Channel DDR3L-1333 up to 8GB, eMMC up to 32GB
- LVDS and HDMI/DP support H.264, MPEG2 HW Decode/Encode
- GbE, 3 PCIe x1, 1 USB3.0, 6 USB2.0
- iManager WISE-PaaS/RMM, and Embedded Software APIs

Software APIs:



Watchdog



I2C



SMBus



H/W Monitor



GPIO

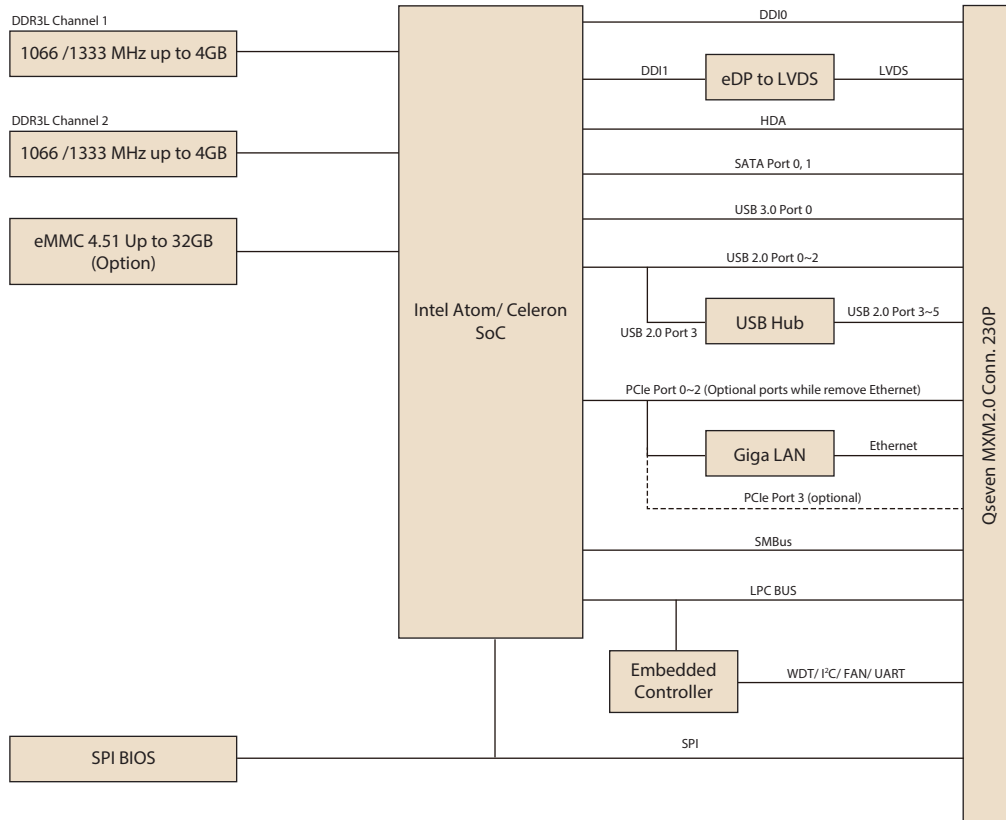


Brightness Control

### Specifications

|                 |                          |                                                                                                                                                                                                     |             |             |             |                |
|-----------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|----------------|
| Compliance      | Form-Factor              | QSeven 70 x 70 mm                                                                                                                                                                                   |             |             |             |                |
|                 | Pin-out Type             | QSeven 2.1                                                                                                                                                                                          |             |             |             |                |
| Platform        | CPU                      | Atom® E3845                                                                                                                                                                                         | Atom® E3827 | Atom® E3825 | Atom® E3815 | Celeron® J1900 |
|                 | Base Frequency           | 1.91GHz                                                                                                                                                                                             | 1.75GHz     | 1.33GHz     | 1.46GHz     | 2.00GHz        |
|                 | Burst Frequency          | -                                                                                                                                                                                                   | -           | -           | -           | 2.42GHz        |
|                 | Core/Thread              | 4/4                                                                                                                                                                                                 | 2/2         | 2/2         | 1/1         | 4/4            |
|                 | LLC                      | 2MB                                                                                                                                                                                                 | 1MB         | 1MB         | 512KB       | 2MB            |
|                 | CPU TDP                  | 10W                                                                                                                                                                                                 | 8W          | 6W          | 5W          | 10W            |
|                 | Chipset                  | N/A                                                                                                                                                                                                 |             |             |             |                |
|                 | BIOS                     | AMI EFI BIOS                                                                                                                                                                                        |             |             |             |                |
| Memory          | Technology               | DDR3L-1333                                                                                                                                                                                          | DDR3L-1333  | DDR3L-1066  | DDR3L-1066  | DDR3L-1333     |
|                 | ECC Support              | Not support                                                                                                                                                                                         |             |             |             |                |
|                 | Channel/Socket           | Onboard Single/Dual Channels                                                                                                                                                                        |             |             |             |                |
|                 | Max. Capacity            | Up to 8GB                                                                                                                                                                                           |             |             |             |                |
| Graphics        | Controller               | Intel® Gen 7                                                                                                                                                                                        |             |             |             |                |
|                 | Base/Turbo Freq.         | 542MHz                                                                                                                                                                                              | 542MHz      | 533MHz      | 400 MHz     | 688 MHz        |
|                 | Graphics Burst Frequency | 792MHz                                                                                                                                                                                              | 792MHz      | -           | -           | 854 MHz        |
|                 | Graphics Memory          | Up to 1720MB DVMT                                                                                                                                                                                   |             |             |             |                |
|                 | 3D/HW Acceleration       | DX11, OGL3.2, OCL1.1, and H.264/AVC, VC-1, MPEG2 HW Decode/Encode                                                                                                                                   |             |             |             |                |
| Display         | LCD                      | LVDS: Dual channel 18/24-bit, up to 1920 x 1080                                                                                                                                                     |             |             |             |                |
|                 | DDI                      | 1 DDI support HDMI/DVI/DP configurable<br>HDMI 1.4b: 3840 x 2160 @ 30Hz or 2560 x 1600 @ 60Hz, 24 bpp<br>DVI: up to 1920 x 1080 @ 60Hz<br>DP 1.1a: 3840 x 2160 @ 30Hz or 2560 x 1600 @ 60Hz, 24 bpp |             |             |             |                |
|                 | Multiple Display         | Dual display (LCD + DDI)                                                                                                                                                                            |             |             |             |                |
|                 | PCI Express              | 3 PCIe x1, optional 4 ports while remove Ethernet; Support x1, x2, x4 configurable                                                                                                                  |             |             |             |                |
| Expansion       | Audio Interface          | HD Audio                                                                                                                                                                                            |             |             |             |                |
|                 | LPC                      | Yes                                                                                                                                                                                                 |             |             |             |                |
| Serial Bus      | SMBus                    | Yes                                                                                                                                                                                                 |             |             |             |                |
|                 | I2C Bus                  | Yes                                                                                                                                                                                                 |             |             |             |                |
| Ethernet        | Controller               | Intel® i210IT                                                                                                                                                                                       |             |             |             |                |
|                 | Speed                    | 10/100/1000 Mbps                                                                                                                                                                                    |             |             |             |                |
| Onboard Storage | eMMC                     | eMMC4.51 up to 32GB                                                                                                                                                                                 |             |             |             |                |
| I/O             | SATA                     | 2 Ports, Support Gen3.1 (6Gb/s) and Gen2 (3 Gb/s) or Gen 1(1.5 Gb/s)                                                                                                                                |             |             |             |                |
|                 | USB3.0                   | 1 Port                                                                                                                                                                                              |             |             |             |                |
|                 | USB2.0                   | 6 ports                                                                                                                                                                                             |             |             |             |                |
|                 | SPI Bus                  | Support SPI BIOS EEPROM                                                                                                                                                                             |             |             |             |                |
|                 | GPIO                     | Not support GPIO mux with LPC                                                                                                                                                                       |             |             |             |                |
|                 | Watchdog                 | Multi-stage Watchdog Timer Output, 65536 level, 0 ~ 65535 sec                                                                                                                                       |             |             |             |                |
|                 | COM Port                 | 4-wire COM 2 Ports (1 on MFG pins), optional support GPIO                                                                                                                                           |             |             |             |                |
|                 | Smart Fan                | 1 port                                                                                                                                                                                              |             |             |             |                |
| Power           | Type                     | ATX: Vin, VSB, AT: Vin                                                                                                                                                                              |             |             |             |                |
|                 | Supply Voltage           | Vin: 5V±5%, VSB: 5V±5%, RTC Battery: 2.0-3.3V                                                                                                                                                       |             |             |             |                |
|                 | Power Consumption        | TBD                                                                                                                                                                                                 |             |             |             |                |
| Environment     | Temperature              | 0 ~ 60° C (32 ~ 140° F)                                                                                                                                                                             |             |             |             |                |
|                 | Humidity                 | Operating: 40° C @ 95% relative humidity, non-condensing<br>Storage: 60° C @ 95%relative humidity, non-condensing                                                                                   |             |             |             |                |
|                 | Vibration Resistance     | 3.5 Grms                                                                                                                                                                                            |             |             |             |                |
| Mechanical      | Dimensions               | 70 x 70 mm (2.75" x 2.75")                                                                                                                                                                          |             |             |             |                |

## Block Diagram



## Ordering Information

| Part No.           | CPU           | Freq.   | Core | CPU TDP | Memory | eMMC | Thermal Solution | Operating Temperature |
|--------------------|---------------|---------|------|---------|--------|------|------------------|-----------------------|
| SOM-3567CS0C-S9A1E | Atom E3845    | 1.91GHz | 4C   | 10W     | 4GB    | NA   | Passive          | 0 ~ 60° C             |
| SOM-3567BS0C-S7A1E | Atom E3827    | 1.75GHz | 2C   | 8W      | 2GB    | NA   | Passive          | 0 ~ 60° C             |
| SOM-3567CS0C-U0A1E | Celeron J1900 | 2.0GHz  | 4C   | 10W     | 4GB    | NA   | Passive          | 0 ~ 60° C             |
| SOM-3567CMBX-S9A1E | Atom E3845    | 1.91GHz | 4C   | 10W     | 4GB    | 32GB | Passive          | -40 ~ 85° C           |
| SOM-3567BS0X-S7A1E | Atom E3827    | 1.75GHz | 2C   | 8W      | 2GB    | NA   | Passive          | -40 ~ 85° C           |
| SOM-3567BS0X-S5A1E | Atom E3815    | 1.46GHz | 1C   | 5W      | 2GB    | NA   | Passive          | -40 ~ 85° C           |

## Packing List

| Part No.       | Description                | Quantity |
|----------------|----------------------------|----------|
| -              | SOM-3567 Qseven CPU Module | 1        |
| 1960076583N000 | Heatspreader               | 1        |

## Optional Accessories

| Part No.       | Description                                  |
|----------------|----------------------------------------------|
| 1960058145N001 | Semi-Heatsink, 70L x 63W x 13.2H (0 ~ 60° C) |
| 1960061089N001 | Semi-Heatsink, 70L x 63W x 34H (-40 ~ 85° C) |

## Development Board

| Part No.         | Description              | Quantity |
|------------------|--------------------------|----------|
| SOM-DB3520-00A1E | Qseven Development Board | 1        |

## Embedded OS

| OS   | Part No.   | Description                       |
|------|------------|-----------------------------------|
| WES7 | 2070014541 | img WES7E SOM-3567 X64 V5.7.0 Eng |

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Advantech:](#)

[SOM-3567CS0C-S9A1E](#) [SOM-3567BS0X-S7A1E](#) [SOM-3567CMBX-S9A1E](#) [SOM-3567CS0C-U0A1E](#)