

SOM-3569

Intel® Atom™/Pentium®/Celeron® Series QSeven CPU Module

NEW



Features

- Intel® Atom™/Pentium®/Celeron® Series SoC
- Qseven® 2.1 Specification
- Onboard LPDDR4 up to 8GB, onboard eMMC up to 64GB
- Support HEVC/H.265, H.264 MPEG2 HW Decode
- GbE, 4 PCIe x1, 1 USB3.0, 8 USB2.0
- Supports iManager WISE-PaaS/RMM, and Embedded Software APIs

Software APIs:

- Watchdog
- I²C
- SMBus
- H/W Monitor
- Brightness Control

Utilities:

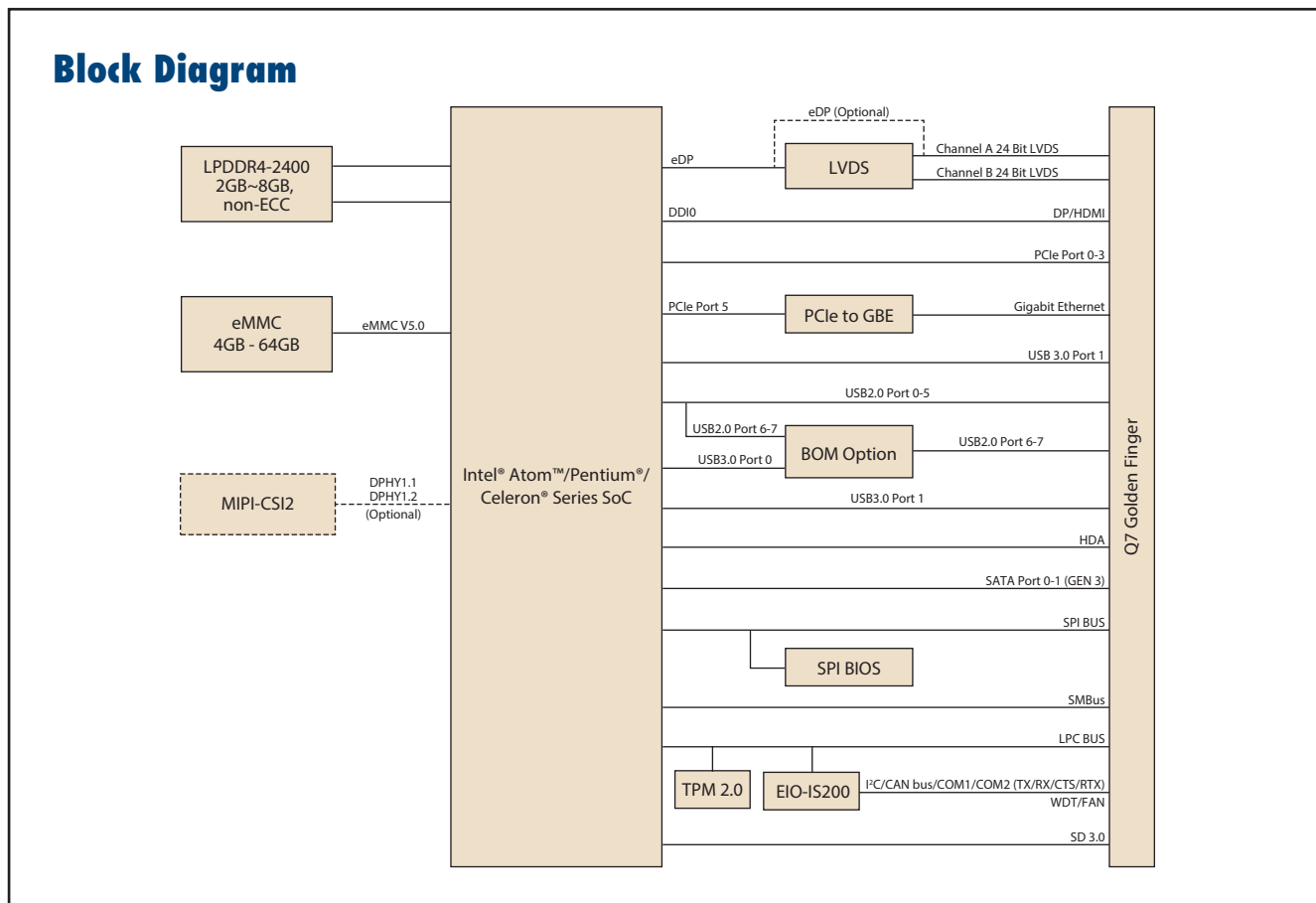
- BIOS flash
- Monitoring
- Embedded Security ID



Specifications

| | | | | | | |
|-----------------|----------------------------|--|---------------|---------------|---------------|---------------|
| Compliance | Form-Factor | QSeven 70 x 70 mm | | | | |
| | Pin-out Type | QSeven 2.1 | | | | |
| Platform | Processor | Pentium® N4200 | Celeron N3350 | Atom X7-E3950 | Atom X5-E3940 | Atom X5-E3930 |
| | Base Frequency | 1.1GHz | 1.1GHz | 1.6GHz | 1.6GHz | 1.3GHz |
| | Burst Frequency | 2.5GHz | 2.4GHz | 2.0GHz | 1.8GHz | 1.8GHz |
| | Core/Tread | 4 / 4 | 2 / 2 | 4 / 4 | 4 / 4 | 2 / 2 |
| | LLC | 2MB | 2MB | 2MB | 2MB | 2MB |
| | CPU TDP | 6W | 6W | 12W | 9.5W | 6.5W |
| | Chipset | N/A | | | | |
| Memory | BIOS | AMI UEFI BIOS @ 128 Mb | | | | |
| | Technology | LPDDR4-2400 | | | | |
| | ECC Support | Not support | | | | |
| | Channel/Socket | Dual Channel / Onboard Memory | | | | |
| Graphics | Max. Capacity | Up to 8GB | | | | |
| | Controller | Intel® HD Graphics | | | | |
| | Base/Turbo Freq. | 200/750MHz | 200/650MHz | 500/650MHz | 400/600MHz | 400/550MHz |
| | Graphics Video Max. Memory | 8GB | 8GB | 2GB | 2GB | 2GB |
| | 3D/HW Acceleration | DX (9.3, 10, 11.3, 12), OpenGL 4.3, OGL ES 3.0, OpenCL 2.0 HW Decode: HEVC/H.265, H.264, MVC, VP8, VP9, MPEG2, VC-1, WMV9, JPEG/MJPEG HW Encode: HEVC/H.265, H.264, MVC, VP8, JPEG/MJPEG | | | | |
| Display | LCD | Dual Channel 18/24-bit LVDS, up to 1920 x 1200 | | | | |
| | DDI | 1 DDI port supports HDMI/DP HDMI 1.4b: up to 3840 x 2160 @ 30Hz DP 1.2: up to 4096 x 2160 @ 60Hz | | | | |
| | Multiple Display | Dual Display | | | | |
| Expansion | PCI Express x1 | 4 PCIe x1 (or 1 PCIe x4) | | | | |
| | 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/SATA SSD | eMMC5.0, 4GB to 64GB | | | | |
| I/O | SATA | 2 Ports, Support Gen3 (6Gb/s) and Gen2 (3 Gb/s) or Gen 1(1.5 Gb/s) | | | | |
| | USB3.0 | 1 Port (up to 2 Ports by BOM option) | | | | |
| | USB2.0 | 8 Ports | | | | |
| | USB Client | N/A (up to 1 Port by BOM option) | | | | |
| | SPI Bus | Support SPI BIOS EEPROM | | | | |
| | GPIO | N/A | | | | |
| | SDIO/SDXC | Support SD 3.0 | | | | |
| | Watchdog | 65536 level, 0 ~ 65535 sec | | | | |
| | COM Port | 2 Ports (4-wire COM 1 port, 2-wire COM 1 port) | | | | |
| | TPM | Yes | | | | |
| | MIPI-CSI | Optional | | | | |
| | CAN Bus | Yes | | | | |
| | Smart Fan | 1 Ports | | | | |
| 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 | Operating Standard: 0 ~ 60 °C (32 ~ 140 °F) Extend Temp.: -40 ~ 85 °C (-40 ~ 185 °F) Storage: -40 ~ 85 °C (-40 ~ 185 °F) | | | | |
| | Humidity | Operating: 40 °C @ 95% relative humidity, non-condensing 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-3569CN0CB-S2A1 | Pentium N4200 | 1.1GHz | 4C | 6W | 4GB | N/A | Passive | 0 ~ 60 °C |
| SOM-3569CN0CB-S1A1 | Celeron N3350 | 1.1GHz | 2C | 6W | 4GB | N/A | Passive | 0 ~ 60 °C |
| SOM-3569DNBCB-S7A1 | Atom x7-E3950 | 1.6GHz | 4C | 12W | 8GB | 32GB | Passive | 0 ~ 60 °C |
| SOM-3569CNBCB-S7A1 | Atom x7-E3950 | 1.6GHz | 4C | 12W | 4GB | 32GB | Passive | 0 ~ 60 °C |
| SOM-3569CN0CB-S6A1 | Atom x5-E3940 | 1.6GHz | 4C | 9.5W | 4GB | N/A | Passive | 0 ~ 60 °C |
| SOM-3569CN0CB-S3A1 | Atom x5-E3930 | 1.3GHz | 2C | 6.5W | 4GB | N/A | Passive | 0 ~ 60 °C |
| SOM-3569CNBxB-S7A1 | Atom x7-E3950 | 1.6GHz | 4C | 12W | 4GB | 32GB | Passive | -40 ~ 85 °C |
| SOM-3569CN0XB-S6A1 | Atom x5-E3940 | 1.6GHz | 4C | 9.5W | 4GB | N/A | Passive | -40 ~ 85 °C |
| SOM-3569CN0XB-S3A1 | Atom x5-E3930 | 1.3GHz | 2C | 6.5W | 4GB | N/A | Passive | -40 ~ 85 °C |

*Any other sku or combination is project based support. Please contact sales for details.

Packing List

| Part No. | Description | Quantity |
|----------------|---|----------|
| - | SOM-3569 Qseven CPU Module | 1 |
| 1960083260N001 | SOM-3569 N SKU heat spreader | 1 |
| 1960083261N001 | SOM-3569 E3900 SKU heat spreader (60°C) | 1 |
| 1960089558T001 | SOM-3569 E3900 SKU heat spreader (85°C) | 1 |

Development Board

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

Optional Accessories

| Part No. | Description |
|----------------|--|
| 1960058145N001 | Semi-Heatsink, 70L x 63W x 13.2H (0 ~ 60 °C) |
| 1960089546T001 | Semi-Heatsink, 70L x 63W x 50H (-40 ~ 85 °C) |

Embedded OS

| OS | Part No. | Description |
|-------|----------------|------------------------------------|
| WIN10 | 20706WX6VSO000 | img W10 16VL SOM-3569 64b 1701 ENU |