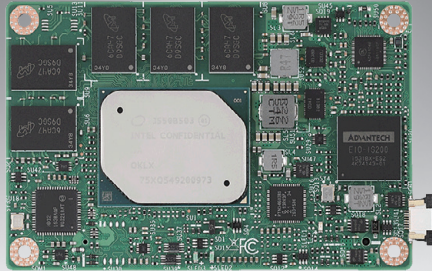


SOM-7569

Intel® Atom™ E3900 & Pentium™ and Celeron™ N Series Processors COM-Express Mini Module

NEW



Features

- COM R.2.1 Type 10 Mini Module
- Intel® Atom™ E3900 & Pentium™ and Celeron™ N Series Processors
- Max 8GB DDR3L onboard memory (support ECC, E3900 SKU only)
- Dual Display: LVDS, HDMI/DisplayPort
- onboard eMMC (default 32GB), TPM2.0
- Supports H.264/AVC, H.265/HEVC, VP9, VP8 HW DECODE
- Supports -40 ~ 85 °C industrial operating temperature
- iManager and Embedded Software APIs

Software APIs:



Utilities:

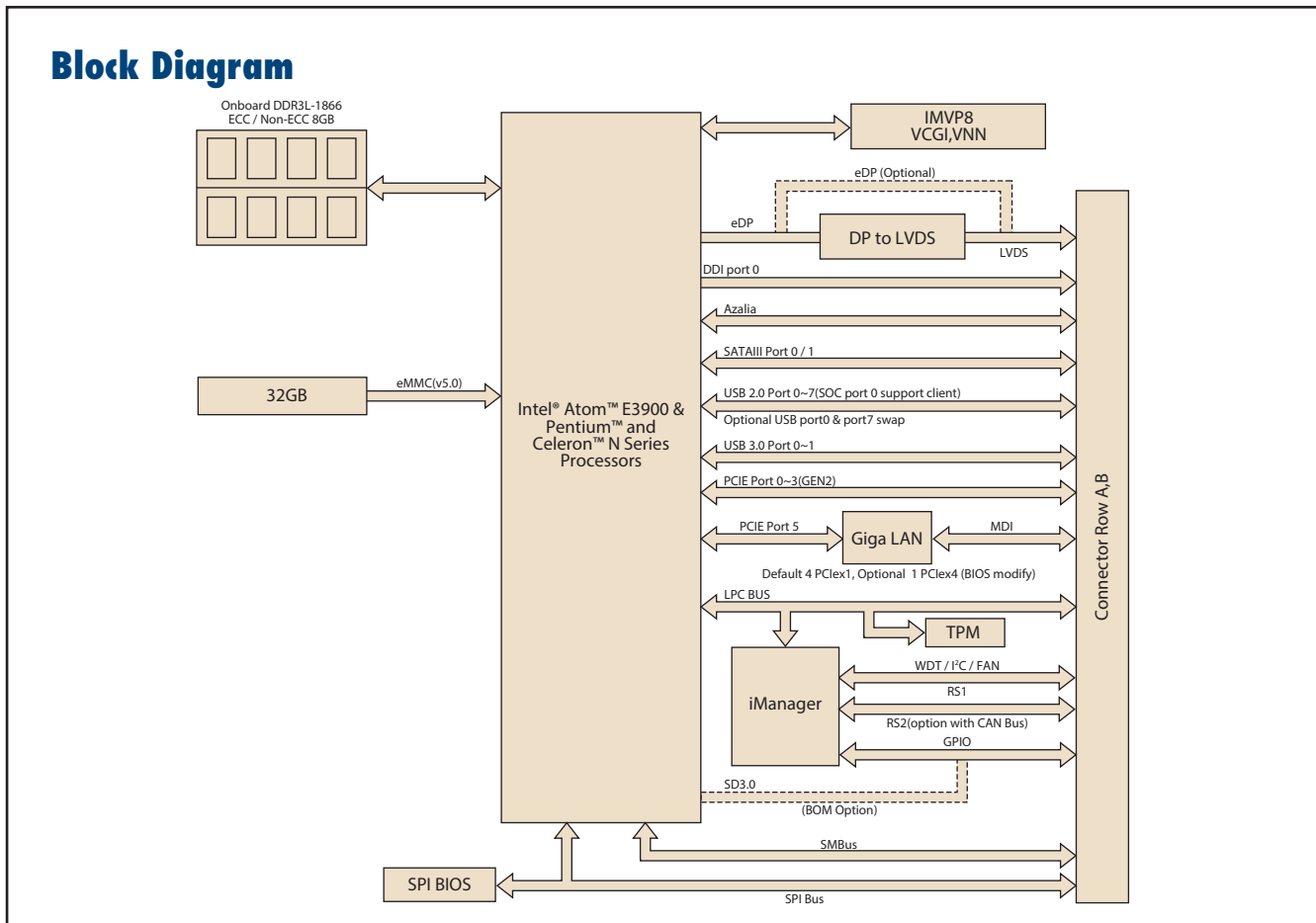


Specifications



| | | | | | | |
|------------------------|--------------------------|---|--|------------------------|------------------------|------------------------|
| Form Factor | Form Factor | COM-Express 2.1 | | | | |
| | Pin-out Type | Mini Module, Type 10 Pin-out | | | | |
| Processor System | SoC | Atom X7-E3950 | Atom X5-E3940 | Atom X5-E3930 | Pentium N4200E | Celeron N3350E |
| | Base Frequency | 1.6GHz | 1.6GHz | 1.3GHz | 1.1GHz | 1.1GHz |
| | Burst Frequency | 2GHz | 1.8GHz | 1.8GHz | 2.5GHz | 2.4GHz |
| | Core/Thread | 4 / 4 | 4 / 4 | 2 / 2 | 4 / 4 | 2 / 2 |
| | LLC | 2MB | 2MB | 2MB | 2MB | 2MB |
| | CPU TDP | 12W | 9.5W | 6.5W | 6W | 6W |
| | Chipset | integrated in CPU | | | | |
| Memory | BIOS | AMI UEFI BIOS @ 64Mb | | | | |
| | Technology | One channel, DDR3L up to 1866(non-ECC), up to 1600(ECC) | | | | |
| | ECC Support | Yes (E3900 SKU only) | | | | |
| | Max. Capacity | 8GB | | | | |
| Graphics | Socket | Memory down | | | | |
| | Controller | Intel® HD Graphics 505 | Intel® HD Graphics 500 | Intel® HD Graphics 500 | Intel® HD Graphics 505 | Intel® HD Graphics 500 |
| | Graphics Burst Frequency | 650MHz | 600MHz | 550MHz | 750MHz | 650MHz |
| | Graphic Memory | Intel DMVT5.0 | | | | |
| | 3D/HW Acceleration | DX (9.3, 10, 11.3, 12), OpenGL 4.3, OGL ES 3.0, OpenCL 2.0 HEVC (H.265) @L5, H.264 @ 5.2, MVC, MPEG2, VP8, VP9, VC-1, WMV9, JPEG/MJPEG HW Decode, HEVC (H.265) @L4, H.264 @ 5.2, MVC, VP8, VP9, JPEG/MJPEG HW Encode | | | | |
| | Display | LCD (LVDS/eDP) | LVDS: Single-channel 18/24-bit, up to 1366 x 768 eDP: Up to 4096 x 2160 @ 60 Hz | | | |
| DD0 (HDMI/DisplayPort) | | HDMI 1.4b: Upto 3840 x 2160 @ 30 Hz DP 1.2: Upto 4096 x 2160 @ 60 Hz | | | | |
| Dual Display | | LVDS, HDMI/DisplayPort eDP, HDMI/DisplayPort (optional) | | | | |
| Expansion | PCI Express x1 | 4 PCIe x1, 1 PCIe x4 (optional) | | | | |
| | Audio Interface | HD Audio | | | | |
| | LPC | Yes | | | | |
| Serial Bus | SMBus | Yes | | | | |
| | I²C Bus | Yes | | | | |
| | Ethernet | Controller | Intel® i210IT/i210AT | | | |
| Speed | | 10/100/1000 Mbps | | | | |
| I/O & Features | SATA | 2 Ports, Support Gen 1 (1.5 Gb/s) or Gen2 (3 Gb/s) and Gen3.1 (6Gb/s) | | | | |
| | Onboard Storage | 32GB eMMC 5.0 interface | | | | |
| | USB3.0 | 2 Ports | | | | |
| | USB2.0 | 8 Ports | | | | |
| | Audio | Intel® HD Audio | | | | |
| | GPIO | 8-bit GPIO | | | | |
| | SDIO | Optional | | | | |
| | Watchdog | 65536 level, 0 ~ 65535 sec | | | | |
| | COM Port | 2 Ports (2-Wire) | | | | |
| | CAN Bus | 1 CAN Bus (option) | | | | |
| | Express Card | Yes | | | | |
| Power | TPM | TPM2.0 | | | | |
| | Smart Fan | 2 Ports; 1 Port on COM Module, Support 12V Fan, 1 Port on Carrier Board | | | | |
| | Type | ATX, AT | | | | |
| | Supply Voltage | ATX (Vin 4.75-20V, Vsb 4.75-5.25V) AT (Vin 4.75-20V) | | | | |
| Environment | Power Consumption (Max.) | Burn in: (E3950)14.73W; (N4200)12.89W | | | | |
| | Power Consumption (Idle) | Idle: (E3950) 4.68W; (N4200) 2.56W | | | | |
| | Temperature | Operating: 0 ~ 60 °C (32 ~ 140 °F), Storage: -40 ~ 85 °C (-40 ~ 185 °F) Extend: -40 ~ 85 °C (-40 ~ 185 °F) (E3900 SKU only) | | | | |
| Mechanical | Humidity | Operating: 40 °C @ 95% relative humidity, non-condensing Storage: 60 °C @ 95% relative humidity, non-condensing | | | | |
| | Vibration Resistance | 3.5 Grms | | | | |
| Mechanical | Dimensions | 84 x 55 mm (3.3" x 2.17") | | | | |

Block Diagram



Ordering Information

| Part No. | CPU | Core | Base Freq. | CPU TDP | LLC | Onboard DDR3L | ECC support | Onboard eMMC | Power | Thermal solution | Operating Temp. |
|--------------------|----------|------|------------|---------|-----|---------------|-------------|--------------|--------|------------------|-----------------|
| SOM-7569CCBCC-S6B2 | X7-E3950 | 4 | 1.6GHz | 12W | 2MB | 8GB i-grade | ECC | 32GB | AT/ATX | Passive | 0 ~ 60 °C |
| SOM-7569BCBCC-S6B2 | X7-E3950 | 4 | 1.6GHz | 12W | 2MB | 4GB | ECC | 32GB | AT/ATX | Passive | 0 ~ 60 °C |
| SOM-7569BC0CC-S3B2 | X5-E3930 | 2 | 1.3GHz | 6.5W | 2MB | 4GB | ECC | N/A | AT/ATX | Passive | 0 ~ 60 °C |
| SOM-7569CCBXC-S6B2 | X7-E3950 | 4 | 1.6GHz | 12W | 2MB | 8GB i-grade | ECC | 32GB | AT/ATX | Passive | -40 ~ 85 °C |
| SOM-7569CBXC-S5B2 | X5-E3940 | 4 | 1.6GHz | 9.5W | 2MB | 4GB | ECC | 32GB | AT/ATX | Passive | -40 ~ 85 °C |
| SOM-7569BC0XC-S3B2 | X5-E3930 | 2 | 1.3GHz | 6.5W | 2MB | 4GB | ECC | N/A | AT/ATX | Passive | -40 ~ 85 °C |
| SOM-7569BNBCC-S2B2 | N4200E | 4 | 1.1GHz | 6W | 2MB | 4GB | non ECC | 32GB | AT/ATX | Passive | 0 ~ 60 °C |
| SOM-7569BN0CC-S1B2 | N3350E | 2 | 1.1GHz | 6W | 2MB | 4GB | non ECC | N/A | AT/ATX | Passive | 0 ~ 60 °C |

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

Packing List

| Part No. | Description | Quantity |
|----------------|--|----------|
| - | SOM-7569 COM module | 1 |
| 1960079610T000 | Heat spreader (when use Atom E3900 SKU) | 1 |
| 1960079608T010 | Heat spreader (when use Pentium & Celeron N SKU) | 1 |

Optional Accessories

| Part No. | Description |
|----------------|------------------------------------|
| 1960056280N001 | Semi-Heatsink 84L x 55W x 13.2H mm |
| 1960050950N001 | Semi-Heatsink 84L x 55W x 34H mm |

Development Board

| Part No. | Description |
|------------------|---|
| SOM-DB5800-U0A2E | Development Board for COM Express® R2.1 Type 10 Modules |

Embedded OS

| OS | Part Number | Description |
|-------|----------------|------------------------------------|
| Win10 | 20706WX9HS0091 | img W10 19HL SOM-7569 64b 1809 ENU |
| Win10 | 20706WX9VS0095 | img W10 19VL SOM-7569 64b 1809 ENU |
| Win10 | 20706WX9ES0105 | img W10 19EL SOM-7569 64b 1809 ENU |