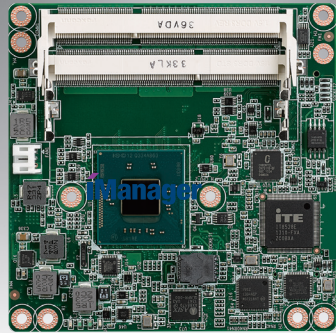


SOM-6867

Intel Atom/Celeron Processor COM Express Type 6 Compact Module

NEW



Windows Embedded

iManager susiAccess CE FC

Features

- Embedded Intel Atom/Celeron Processor E3845/E3827/J1900
- Dual Channel DDR3L-1333 SODIMM sockets up to 8 GB
- Supports VGA, LVDS, HDMI/DVI/DisplayPort
- Support 3 PCIe x1, 8 USB2.0, USB3.0, 2 SATAII, LPC, SMBus, I²C
- Supports iManager, SUSIAccess and Embedded Software APIs

Software APIs:

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

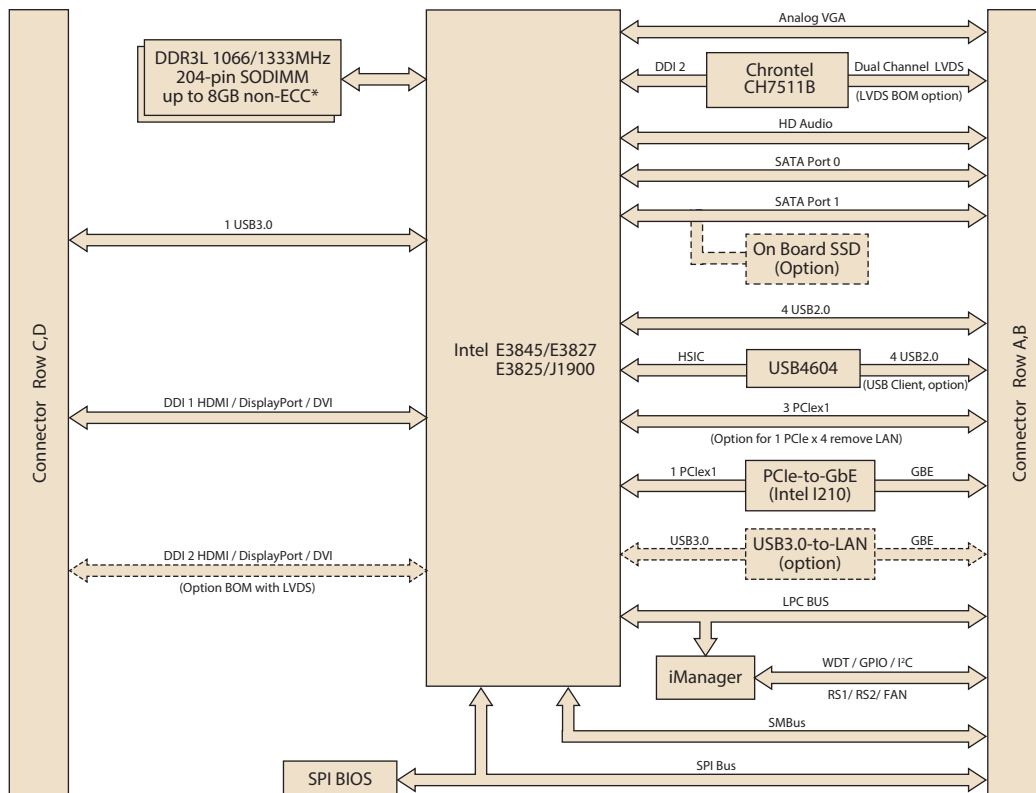
Utilities:

- BIOS flash
- Monitoring
- Embedded Security ID

Specifications

| | | | | | |
|--------------------------|----------------------------|---|------------------------|---------------------------|------------------|
| Form Factor | Form Factor | COM Express Compact Module | | | |
| | Pin-out Type | COM Express R2.1 Type 6 | | | |
| Processor System | CPU | E3845 | E3827 | E3825 | J1900 |
| | Base Frequency | 1.91 GHz | 1.75 GHz | 1.33 GHz | 2.0 GHz |
| | Turbo Boost Frequency | - | - | - | 2.42 GHz |
| | Core/Thread | 4 | 2 | 2 | 4 |
| | LLC | 2 MB | 1 MB | 1 MB | 2 MB |
| | CPU TDP | 10 W | 8 W | 6 W | 10W |
| | BIOS | AMI EFI 16 Mbit | | | |
| Memory | Technology | DDR3L 1333, 2-CH | DDR3L 1333, 2-CH | DDR3L 1066, 1-CH (DIMM 1) | DDR3L 1333, 2-CH |
| | ECC Support | N/A | | | |
| | Max. Capacity | Up to 8GB | | | |
| | Socket | Dual 204P SODIMM | | | |
| Graphics | Controller | Intel HD Graphics | | | |
| | Frequency (Normal/Turbo) | 542/792 MHz | 542/792 MHz | 533 MHz | 688/854 MHz |
| | Graphic Memory | Up to 1720MB DVMT | | | |
| | 3D/HW Acceleration | DX11, OpenGL3.2, OpenCL1.1, OpenGLES 2.0, H.264 (AVC) | | | |
| Display | VGA | 2560 x 1600 | | | |
| | LCD | Single and dual channel 18/24 bit LVDS, up to 1920 x 1200 | | | |
| | DDI (HDMI/DVI/DisplayPort) | 1 DDI (up to 2560 x 1600; optional: 2 DDI without LVDS; HDMI up to 1920 x 1200) | | | |
| Expansion | Dual Display | LVDS + DDI, VGA + LVDS, VGA + DDI, DDI + DDI (Optional) | | | |
| | PCI Express x1 | 3 ports (optional 4 PCIe x1, or 1 PCIe x4 without LAN) | | | |
| | Audio Interface | HD Audio | | | |
| Serial Bus | LPC | Yes | | | |
| | SMBus | Yes | | | |
| Ethernet | I ² C Bus | Yes | | | |
| | Controller | Intel i210 | | | |
| I/O | Speed | 10/100/1000 Mbps | | | |
| | SATA | 2 ports support SATAII 3.0Gb/s (Optional: 1 port while using onboard storage) | | | |
| | Onboard Storage | onboard flash (Optional, MLC up to 64GB, SLC up to 32GB) | | | |
| | USB3.0 | 1 Port | | | |
| | USB2.0 | 8 Ports | | | |
| | USB Client | 1 port (optional) | | | |
| | Audio Interface | HD Audio | | | |
| | SPI Bus | 1 channel (SPI BIOS EEPROM) | | | |
| | GPIO | 8-bit GPIO | | | |
| | Watchdog | 65536 level, 0 ~ 65535 sec | | | |
| | COM Port | 2 Ports (2-Wire) | | | |
| | Express Card | 2 Ports | | | |
| | Smart Fan | 2 Ports; 1 Port on COM Module. Support 12V Fan, 1 Port on Carrier Board | | | |
| | Power | Type | ATX: Vin, VSB, AT: Vin | | |
| Supply Voltage | | Vin: 4.75(5-5%) ~ 20V(19+5%), VSB: 5V±5%, RTC Battery: 2.0-3.3V | | | |
| Power Consumption (Max.) | | +12V @ 1.73A (J1900) +12V @ 1.28A (E3845) | | | |
| Power Consumption (Idle) | | +12V @ 1.01A (J1900) +12V @ 0.79A (E3845) | | | |
| Environment | Temperature | Operating: 0 ~ 60° C (32 ~ 140° 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 | | | |
| Mechanical | Dimensions | 95 x 95 mm (3.74" x 3.74") | | | |

Block Diagram



*- E3800 Series must to have Channel A (DIMM1) inserted.

Ordering Information

| Part No. | CPU + PCH | Frq. | CPU TDP | LLC | DDR3L Memory | LVDS | VGA | DDI | Giga | HD A | PCIe x1 | USB2.0 | USB3.0 | SATA II | LPC | Power | Thermal Solution | Operating Temperature |
|------------------|-----------|------|---------|-----|--------------|-----------|-----|-----|------|------|---------|--------|--------|---------|-----|--------|------------------|-----------------------|
| SOM-6867RC-U0A1E | J1900 | 2.0 | 10W | 2 | Non-ECC | 18/24-bit | 1 | 2 | 1 | Yes | 3 | 8 | 1 | 2 | Yes | AT/ATX | Passive | 0 ~ 60° C |
| SOM-6867AC-S9A1E | E3845 | 1.91 | 10W | 2 | Non-ECC | 18/24-bit | 1 | 2 | 1 | Yes | 3 | 8 | 1 | 2 | Yes | AT/ATX | Passive | 0 ~ 60° C |
| SOM-6867AC-S7A1E | E3827 | 1.75 | 8W | 1 | Non-ECC | 18/24-bit | 1 | 2 | 1 | Yes | 3 | 8 | 1 | 2 | Yes | AT/ATX | Passive | 0 ~ 60° C |
| SOM-6867AC-S3A1E | E3825 | 1.33 | 6W | 1 | Non-ECC | 18/24-bit | 1 | 2 | 1 | Yes | 3 | 8 | 1 | 2 | Yes | AT/ATX | Passive | 0 ~ 60° C |
| SOM-6867RZ-U0A1E | J1900 | 2.0 | 10W | 2 | Non-ECC | 18/24-bit | 1 | 2 | 1 | Yes | 3 | 8 | 1 | 2 | Yes | AT/ATX | Active | -20 ~ 80° C |
| SOM-6867RX-U0A1E | J1900 | 2.0 | 10W | 2 | Non-ECC | 18/24-bit | 1 | 2 | 1 | Yes | 3 | 8 | 1 | 2 | Yes | AT/ATX | Active | -40 ~ 85° C |
| SOM-6867AZ-S9A1E | E3845 | 1.91 | 10W | 2 | Non-ECC | 18/24-bit | 1 | 2 | 1 | Yes | 3 | 8 | 1 | 2 | Yes | AT/ATX | Active | -20 ~ 80° C |
| SOM-6867AX-S9A1E | E3845 | 1.91 | 10W | 2 | Non-ECC | 18/24-bit | 1 | 2 | 1 | Yes | 3 | 8 | 1 | 2 | Yes | AT/ATX | Active | -40 ~ 85° C |
| SOM-6867AZ-S7A1E | E3827 | 1.75 | 8W | 1 | Non-ECC | 18/24-bit | 1 | 2 | 1 | Yes | 3 | 8 | 1 | 2 | Yes | AT/ATX | Active | -20 ~ 80° C |
| SOM-6867AX-S7A1E | E3827 | 1.75 | 8W | 1 | Non-ECC | 18/24-bit | 1 | 2 | 1 | Yes | 3 | 8 | 1 | 2 | Yes | AT/ATX | Active | -40 ~ 85° C |

Note: Passive = fanless; Active = with fan

Development Board

| Part No. | Description |
|------------------|---|
| SOM-DB5800-00A2E | COM Express Development Board A2 Type 6 Pin-out |

Packing List

| Part No. | Description | Quantity |
|----------------|---------------------|----------|
| - | SOM-6867 CPU Module | 1 |
| 1960065753N001 | Heatspreader | 1 |

Optional Accessories

| Part No. | Description |
|----------------|----------------------------------|
| 1960048815N001 | Semi-Heatsink 95 x 95 x 16.25 mm |
| 1960048819N001 | Semi-Cooler 95 x 95 x 33 mm |

Embedded OS

| OS | Part no. | Description |
|-------|------------|---------------------|
| WES7E | 2070013142 | SOM-6867 x64 V5.6.8 |
| Linux | | Linux Supported |