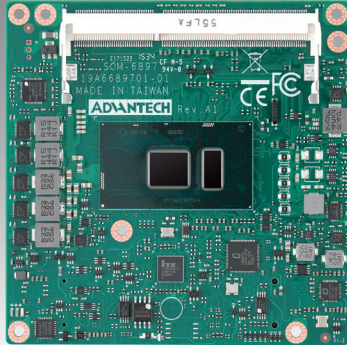


SOM-6897

6th Gen Intel Core/Celeron Processors COM Express Compact Module Type 6

NEW



Features

- 6th Gen Intel Core i7/i5/i3/Celeron w/ integrated PCH-LP
- Support Dual Channel DDR3L-1600 SODIMM up to 16GB
- Integrated GFX supports HEVC, VP8, VP9 HW Transcode
- Flexible PCI Express up to 8 lanes
- Supports iManager susiAccess, and Embedded Software APIs

Software APIs:

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

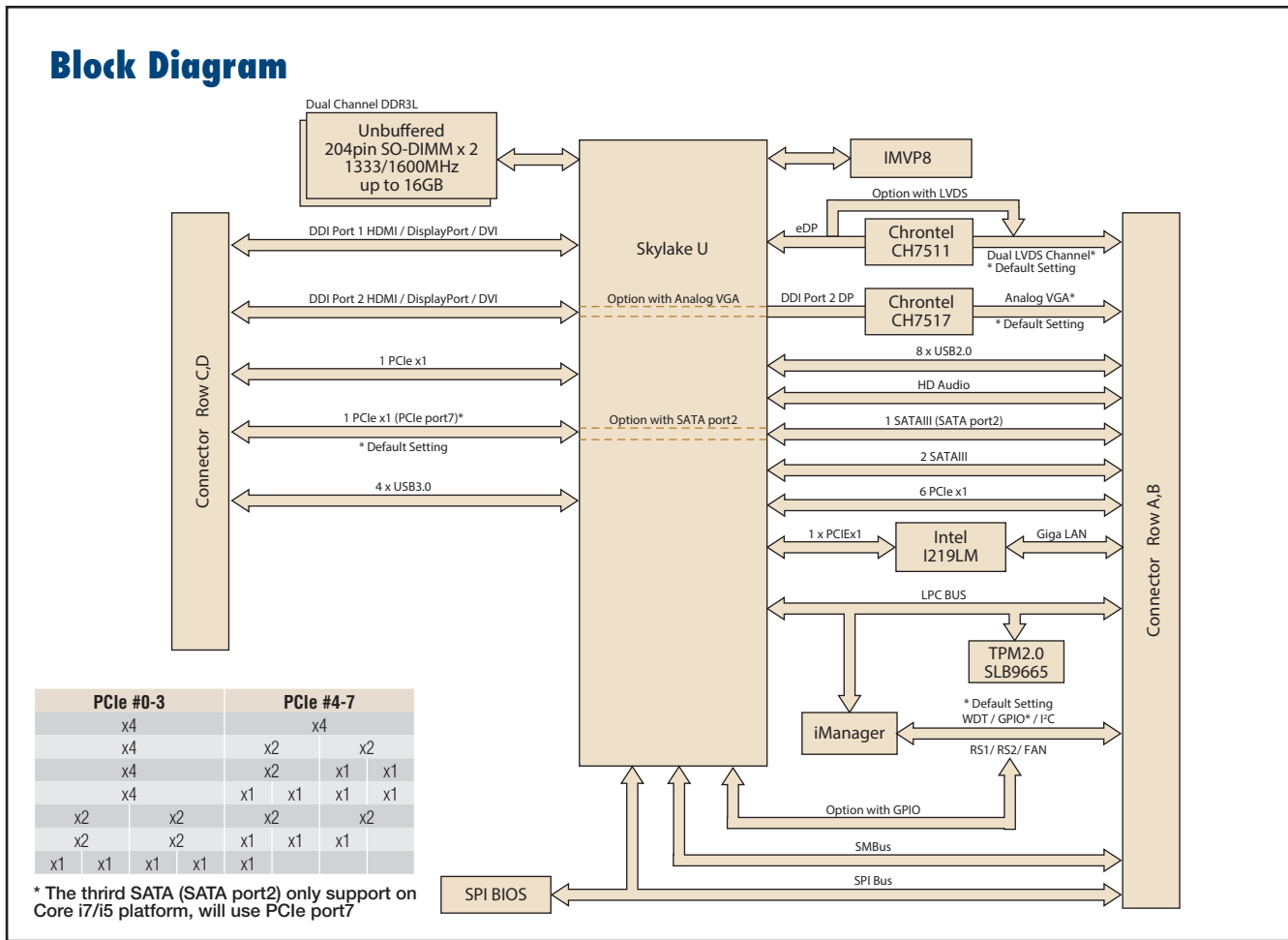
Utilities:

- BIOS flash
- Monitoring
- Embedded Security ID

Specifications

| | | | | | |
|----------------|----------------------|--|------------------------|--------------------|--------------------|
| Compliance | Form-Factor | COM Express Compact Module | | | |
| | Pin-out Type | COM Express R2.1 Type 6 pin out | | | |
| Platform | Processor | i7-6600U | i5-6300U | i3-6100U | Celeron 3955U |
| | Base Frequency | 2.6 GHz | 2.4 GHz | 2.3 GHz | 2.0 GHz |
| | Turbo Boost Freq. | 3.4 GHz | 3.0 GHz | N/A | N/A |
| | Core/Tread | 2/4 | 2/4 | 2/4 | 2C/2T |
| | LLC | 4 MB | 3 MB | 3 MB | 2 MB |
| | CPU TDP | 15W | 15W | 15W | 15W |
| | Chipset | Integrated PCH-LP | | | |
| | BIOS | AMI EFI BIOS | | | |
| Memory | Technology | DDR3L (1.35V)-1600MHz | | | |
| | ECC Support | Not supported | | | |
| | Channel/Socket | Dual channels / 2 sockets | | | |
| | Max. Capacity | Up to 16GB | | | |
| Graphics | Controller | Intel Gen 9 LP GT2 | Intel Gen 9 LP GT2 | Intel Gen 9 LP GT2 | Intel Gen 9 LP GT1 |
| | Base/Turbo Freq. | 300/1050MHz | 100/1000 MHz | 100/1000 MHz | 100/900 MHz |
| | Graphics Memory | Intel DVMT | | | |
| | 3D/HW Acceleration | Direct3D 2015/11.2/11.1/10/9, Direct2D, OpenGL 5.0, OpenCL 2.1/2.0/1.2 HW Decode: H.265/HEVC, H.264/AVC, VP9, VP8, MPEG2, WMV9/VC1, JPEG/MJPEG HW Encode: H.265/HEVC, H.264/AVC, VP9, VP8, MPEG2, JPEG | | | |
| | VGA | Support up to 1920 x 1200 @ 60 Hz | | | |
| Display | LCD | LVDS support 2 channels 18/24-bit, up to 1920 x 1200 @ 60Hz Optional eDP up to 3840 x 2160 @ 60Hz 24bpp or 4096 x 2304 @ 60Hz 24bpp | | | |
| | DDI | 1 Ports, optional 2 while remove VGA, configurable to HDMI1.4/DVI/Displayport1.2 HDMI up to 4096 x 2160 @ 24Hz 24bpp DVI up to 1920 x 1080 @ 60Hz DP up to 3840 x 2160 @ 60Hz 24bpp or 4096 x 2304 @ 60Hz 24bpp | | | |
| | Multiple Display | Support 3 independent display | | | |
| | PCI Express x16 | Not available | | | |
| Expansion | PCI Express x1 | PCI Express Gen3 (8.0 GT/s) 5 PCIe x1 or 4 PCIe x1 + 1 PCIe x4 (support up to 5 devices and 8 lanes) | | | |
| | Audio Interface | Intel HD Audio Interface | | | |
| | LPC | Yes (24MHz) | | | |
| Serial Bus | SMBus | Yes | | | |
| | PC Bus | Yes | | | |
| Ethernet | Controller | Intel i219LM | | | |
| | Speed | 10/100/1000 Mbps | | | |
| I/O | SATA | Supports 2 SATA Gen 3 (8.0 Gb/s), i7/i5 optional support 3 SATA while PCIe supporting downgraded Support RAID 0/1/5/10, AHCI 1.3 | | | |
| | USB3.0 | 4 Ports | | | |
| | USB2.0 | 8 Ports | | | |
| | SPI Bus | For BIOS only | | | |
| | GPIO | 8-bit GPIO | | | |
| | Watchdog | 65536 level, 0 ~ 65535 sec | | | |
| | COM Port | 2 Ports (2-wire) | | | |
| | Express Card | 2 Ports | | | |
| | TPM | Optional TPM2.0 (Infineon SLB9665) | | | |
| | 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: 8.5V (9V-5%) ~ 20V (19+5%); VSB: 5V ±5% | | | |
| | Power Consumption | Burn in: (16GB DDR3L 1600) i3-6100U +12V @ 12.81W Idle: (16GB DDR3L 1600) i3-6100U +12V @ 2.76W *Only for reference and will depends on custom software loading, detail refer to user manual | | | |
| Environment | Temperature | Operating : 0 ~ 60° C (32 ~ 140° F), (Extend model TBD) 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 | 95 x 95 mm (3.74" x 3.74") | | | |

Block Diagram



Ordering Information

| Part No. | CPU | Freq. | Core | Graphic | SATA | Thermal Solution | Operating Temperature |
|--------------------|---------------|--------|------|-----------|------|------------------|-----------------------|
| SOM-6897C7-U6A1E | i7-6600U | 2.6GHz | 2 | Gen 9 GT2 | 2 | Active | 0 ~ 60° C |
| SOM-6897C5-U4A1E | i5-6300U | 2.4GHz | 2 | Gen 9 GT2 | 2 | Active | 0 ~ 60° C |
| SOM-6897C3-U3A1E | i3-6100U | 2.3GHz | 2 | Gen 9 GT2 | 2 | Active | 0 ~ 60° C |
| SOM-6897CR-U0A1E | Celeron 3955U | 2.0GHz | 2 | Gen 9 GT1 | 2 | Active | 0 ~ 60° C |
| SOM-6897C7Z2-U6A1E | i7-6600U | 2.6GHz | 2 | Gen 9 GT2 | 2 | Active | -40 ~ 85° C |
| SOM-6897C5Z2-U4A1E | i5-6300U | 2.4GHz | 2 | Gen 9 GT2 | 2 | Active | -40 ~ 85° C |
| SOM-6897C3Z2-U3A1E | i3-6100U | 2.3GHz | 2 | Gen 9 GT2 | 2 | Active | -40 ~ 85° C |
| SOM-6897CRZ2-U0A1E | Celeron 3955U | 2.0GHz | 2 | Gen 9 GT2 | 2 | Active | -40 ~ 85° C |

Development Board

| Part No. | Description |
|------------------|--|
| SOM-DB5800-00A2E | COMe Devel. Board Type6 pint-out Rev. A2 |

Optional Accessories

| Part No. | Description |
|----------------|--|
| 1960048819N001 | Semi-Cooler 95 x 95 x 33.5 mm with 12V Fan |

Packing List

| Part No. | Description | Quantity |
|----------------|---------------------|----------|
| - | SOM-6897 CPU module | 1 |
| 1960073722N001 | Heatspreader | 1 |

Embedded OS

| OS | Part No. | Description |
|--------|----------|-------------|
| WES8.1 | TBD | TBD |
| WES7 | TBD | TBD |