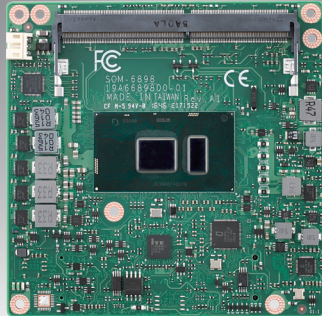


SOM-6898

7th Gen Intel Core/Celeron Processors COM Express Compact Module Type 6

NEW



Features

- 7th Gen Intel Core i7/i5/i3/Celeron w/ integrated PCH-LP
- Support Dual Channel DDR4 2133 SODIMM up to 32GB
- Integrated GFX supports HEVC, VP8, VP9 HW Transcode
- Flexible PCI Express up to 8 lanes
- Supports iManager, WISE-PaaS/RMM, and Embedded Software APIs

Software APIs:

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

Utilities:

- BIOS flash
- Monitoring
- Embedded Security ID



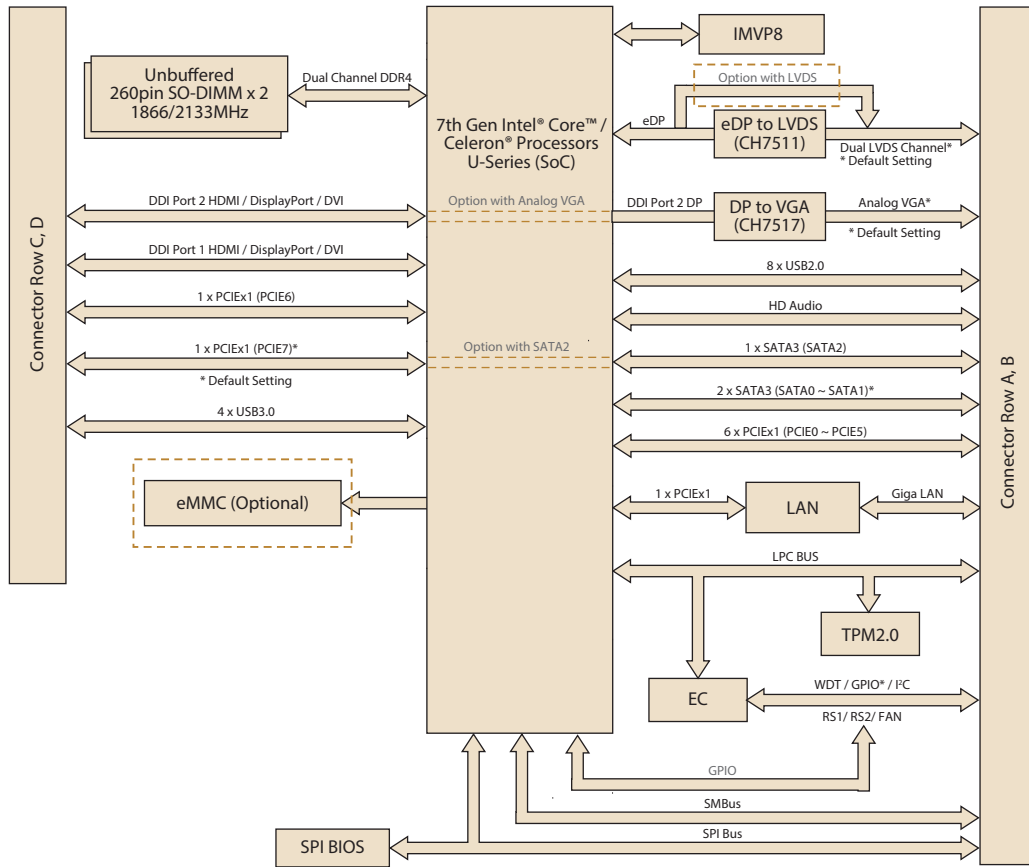
Windows Embedded

iManager WISE-PaaS/RMM CE FC

Specifications

| | | | | | | |
|-------------|----------------------|--|--|------------------------|------------------------|--|
| Compliance | Form-Factor | COM Express Compact Module | | | | |
| | Pin-out Type | COM Express R2.1 Type 6 pin out | | | | |
| Platform | SoC | i7-7600U | i5-7300U | i3-7100U | Celeron3965U | |
| | Base Frequency | 2.8 GHz | 2.6 GHz | 2.4 GHz | 2.2 GHz | |
| | Turbo Boost Freq. | 3.9 GHz | 3.5 GHz | N/A | N/A | |
| | Core/Tread | 2/4 | 2/4 | 2/4 | 2/2 | |
| | LLC | 4M | 3M | 3M | 2M | |
| | CPU TDP | 15W | 15W | 15W | 15W | |
| | Chipset | integrated in CPU | | | | |
| | BIOS | AMI EFI BIOS | | | | |
| Memory | Technology | DDR4 2133 | | | | |
| | ECC Support | Not supported | | | | |
| | Channel/Socket | Dual channels / 2 sockets | | | | |
| | Max. Capacity | 32GB | | | | |
| Graphics | Controller | Intel® HD Graphics 620 | Intel® HD Graphics 620 | Intel® HD Graphics 620 | Intel® HD Graphics 610 | |
| | Base/Turbo Freq. | 300MHz/1.15GHz | 300MHz/1.10GHz | 300MHz/1GHz | 300MHz/900MHz | |
| | 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 | | | | |
| | PCI Express x1 | PCI Express Gen3 (8.0 GT/s) 4 PCIe x1 + 1 PCIe x4, 5 PCIe x1 (Optional) | | | | |
| Expansion | Audio Interface | Intel HD Audio | | | | |
| | LPC | Yes (24MHz) | | | | |
| | SMBus | Yes | | | | |
| Serial Bus | IPC Bus | Yes | | | | |
| | Controller | Intel i219LM | | | | |
| I/O | Speed | 10/100/1000 Mbps | | | | |
| | SATA | Supports 2 SATA 3.0 (6 Gbit/s), optional support 3 SATA 3.0 (6 Gbit/s) Support RAID 0/1/5/10, AHCI 1.3/1.3.1 | | | | |
| | USB3.0 | 4 Ports | | | | |
| | USB2.0 | 8 Ports | | | | |
| | SPI Bus | For BIOS only | | | | |
| | GPIO | 8-bit GPIO | | | | |
| | eMMC | Optional | | | | |
| | Watchdog | 65536 level, 0 ~ 65535 sec | | | | |
| | COM Port | 2 Ports (2-wire, support console redirection) | | | | |
| | Express Card | 2 ports | | | | |
| | TPM | 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: 17.9W Idle: 4.4W *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 -40 ~ 85° C) 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. | SoC | Base/Turbo Boost Freq. | Core | LLC | CPU TDP | DDR4 Memory | Thermal Solution | Operating Temperature |
|--------------------|---------------|------------------------|------|-----|---------|-------------|------------------|-----------------------|
| SOM-6898C7-U8A1E | i7-7600U | 2.8GHz / 3.9GHz | 2 | 4MB | 15W | Non-ECC | Active | 0 ~ 60° C |
| SOM-6898C5-U6A1E | i5-7300U | 2.6GHz / 3.5GHz | 2 | 3MB | 15W | Non-ECC | Active | 0 ~ 60° C |
| SOM-6898C3-U4A1E | i3-7100U | 2.4GHz / N/A | 2 | 3MB | 15W | Non-ECC | Active | 0 ~ 60° C |
| SOM-6898CR-U4A1E | Celeron 3965U | 2.2GHz / N/A | 2 | 2MB | 15W | Non-ECC | Active | 0 ~ 60° C |
| SOM-6898C7Z2-U8A1E | i7-7600U | 2.8GHz / 3.9GHz | 2 | 4MB | 15W | Non-ECC | Active | -40 ~ 85° C |
| SOM-6898C5Z2-U6A1E | i5-7300U | 2.6GHz / 3.5GHz | 2 | 3MB | 15W | Non-ECC | Active | -40 ~ 85° C |
| SOM-6898C3Z2-U4A1E | i3-7100U | 2.4GHz / N/A | 2 | 3MB | 15W | Non-ECC | Active | -40 ~ 85° C |
| SOM-6898CRZ2-U4A1E | Celeron 3965U | 2.2GHz / N/A | 2 | 2MB | 15W | Non-ECC | Active | -40 ~ 85° C |

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

Development Board

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

Packing List

| Part No. | Description | Quantity |
|----------------|---------------------|----------|
| - | SOM-6898 CPU module | 1 |
| 1960080159N000 | Heatspreader | 1 |

Optional Accessories

| Part No. | Description |
|--------------------|--|
| 1960048819N001 | Semi-Cooler 95 x 95 x 33.5 mm with 12V Fan |
| 96LEDK-I057VG50NA1 | 5.7" LED PANEL 500N 640X480(G) |
| 96LEDK-A084SV45NB2 | 8.4" LED PANEL 450N 800X600(G) G084SN05 V9 |
| 96LEDK-C150XG40NG1 | 15" LED PANEL 400N 1024X768(G) G150XGE-L04 |
| 96LEDK-A170SX35NF1 | 17" LED 350N 1280X1024(G) G170EG01 V1 |

Embedded OS

| OS | Part Number | Description |
|-------|-------------|------------------------------------|
| Win10 | 2070015199 | img W10 16HL SOM-6898 64b 1701 ENU |
| Win10 | 2070015200 | img W10 16VL SOM-6898 64b 1701 ENU |
| Win10 | 2070015201 | img W10 16EL SOM-6898 64b 1701 ENU |