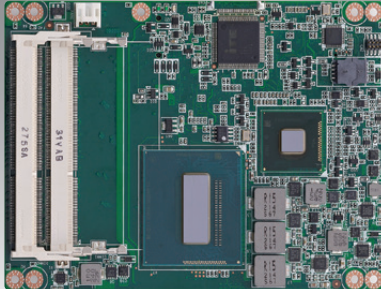


# SOM-5894

## Intel® Core™ i7/i5/i3/Celeron® Processor COM-Express Basic Module

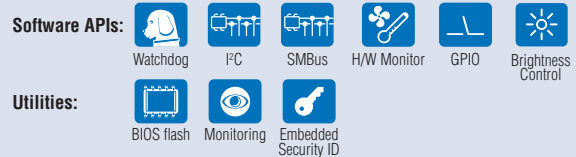
Preliminary



iManager susiAccess CE FCC

### Features

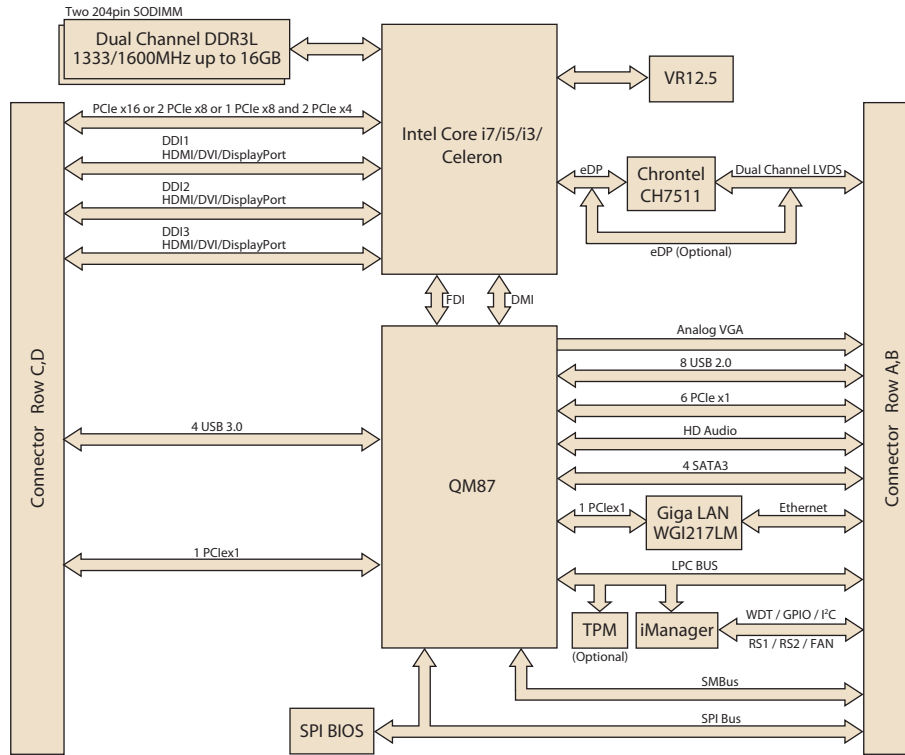
- Embedded Intel® Core™ i7/i5/i3/Celeron® processor + Lynx Point-M
- Supports Dual Channel DDR3L-1333/1600 SODIMM sockets up to 16 GB
- Supports PCIe x16, 7 PCIe x1, 4 SATAIII, 8 USB 2.0, 4 USB 3.0, GbE
- Supports 3 independent displays: VGA, LVDS, DVI, HDMI, DisplayPort
- Supports iManager, SUSIAccess and Embedded Software APIs



### Specifications

|                    |  |   |
|--------------------|--|---|
| Form Factor        |  | COM-Express 2.1 Basic Module, Type 6 Pin-out                    |
| Processor System   | CPU                                    | Intel Core i7-4700EQ Processor (4C, 6M Cache, 2.4GHz)           |
|                    | System Chipset                         | Intel QM87  |
|                    | BIOS                                   | AMI UEFI BIOS @ 128 Mbit  |
| Memory             | Memory Technology                      | DDR3L 1333/1600 MHz   |
|                    | ECC Support                            | -   |
|                    | Max Capacity                           | 16 GB   |
|                    | Socket                                 | Two 204-pin SODIMM sockets                                      |
| Display            | Graphics                               | Intel Gfx Engine  |
|                    | LVDS                                   | Single and dual channel 18/24-bit LVDS                          |
|                    | VGA                                    | 1920 x 1200   |
|                    | DDI                                    | 3 ports support HDMI, DVI, DisplayPort                          |
|                    | Multi-Displays                         | 3 independent displays: VGA, LVDS, DVI, HDMI, DisplayPort       |
| Ethernet           | Chipset                                | i217LM  |
|                    | Speed                                  | 10/100/1000 Mbps  |
| WatchDog Timer     |  | 65536 level, 0 ~ 65535 sec                                      |
| Expansion          |  | PCIe x16, 7 PCIe x1   |
| I/O                | PATA                                   | -   |
|                    | SATA                                   | 4 SATAIII   |
|                    | USB                                    | 8 USB 2.0<br>4 USB 3.0  |
|                    | Audio                                  | HD Audio  |
|                    | GPIO                                   | 8-bit   |
|                    | COM                                    | 2 Ports   |
|                    | TPM                                    | Optional  |
| Power              | Power Type                             | ATX, AT   |
|                    | Power Supply Voltage                   | ATX (Vin 8.5-20V, Vsb 4.75-5.25V)<br>AT (Vin 8.5-20V)           |
|                    | Power Consumption (Typical)            | (8G DDR3L 1600)<br>i7-4700EQ (Engineering Sample): +12V @ 0.71A |
|                    | Power Consumption (Max, tested in HCT) | (8G DDR3L 1600)<br>i7-4700EQ (Engineering Sample): +12V @ 3.51A |
| Environment        | Operating Temperature                  | 0 ~ 60° C (32 ~ 140° F)   |
| Operating Humidity | Operating Humidity                     | 0% ~ 90% relative humidity, non-condensing                      |
| Mechanical         | Dimensions                             | 125 x 95 mm (4.92" x 3.74")                                     |

## Block Diagram



## Ordering Information

| Part No.         | CPU            | Frq.    | CPU TDP | LLC  | PCH  | DDR3L Memory | LVDS      | VGA | DDI | Giga LAN | HAD | PEG x16 | PCIe x1 | USB2.0 | USB3.0 | SATA III | LPC | Power  | Thermal Solution | Operating Temperature |
|------------------|----------------|---------|---------|------|------|--------------|-----------|-----|-----|----------|-----|---------|---------|--------|--------|----------|-----|--------|------------------|-----------------------|
| SOM-5894FG-U4A1E | Core i7-4700EQ | 2.4 GHz | 47W     | 6 MB | QM87 | Non-ECC      | 18/24 bit | Yes | 3   | 1        | Yes | 1       | 7       | 8      | 4      | 4        | Yes | AT/ATX | Active           | 0 - 60° 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-5894 CPU Module | 1        |
| 1960058957N001 | Heatspreader        | 1        |

## Optional Accessories

| Part No.           | Description  |
|--------------------|--|
| 1960048820N001     | Semi-Cooler 125x95x33.5mm with 12V Fan             |
| 96LEDK-I057VG50NA1 | 5.7" LED PANEL 500N 640x480(G) AM-640480G2TNQW-A0H |
| 96LEDK-A084SV45NB2 | 8.4" LED PANEL 450N 800 x 600(G) G084SN05 V9       |
| 96LEDK-C150XG40NG1 | 15" LED PANEL 400N 1024 x 768(G) G150XGE-L04       |
| 96LEDK-A170SX35NF1 | 17" LED PANEL 350N 1280x1024(G) G170EG01 V1        |