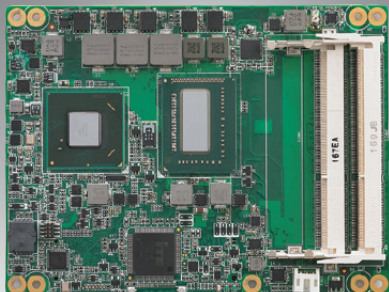


# SOM-5892

## 3rd Gen. Intel® Core™ Processor COM Express® Basic Module

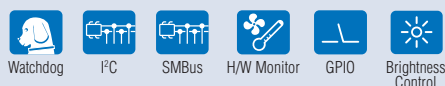


iManager susiAccess CE FCC

### Features

- Embedded Intel® Core™ i7/i5/i3/Celeron® processor + QM77
- Supports Dual Channel DDR3-1600, DDR3L-1333 SODIMM sockets up to 16 GB
- Supports PCIe x16, 7 PCIe x1, 2 SATAIII, 2 SATAII, 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

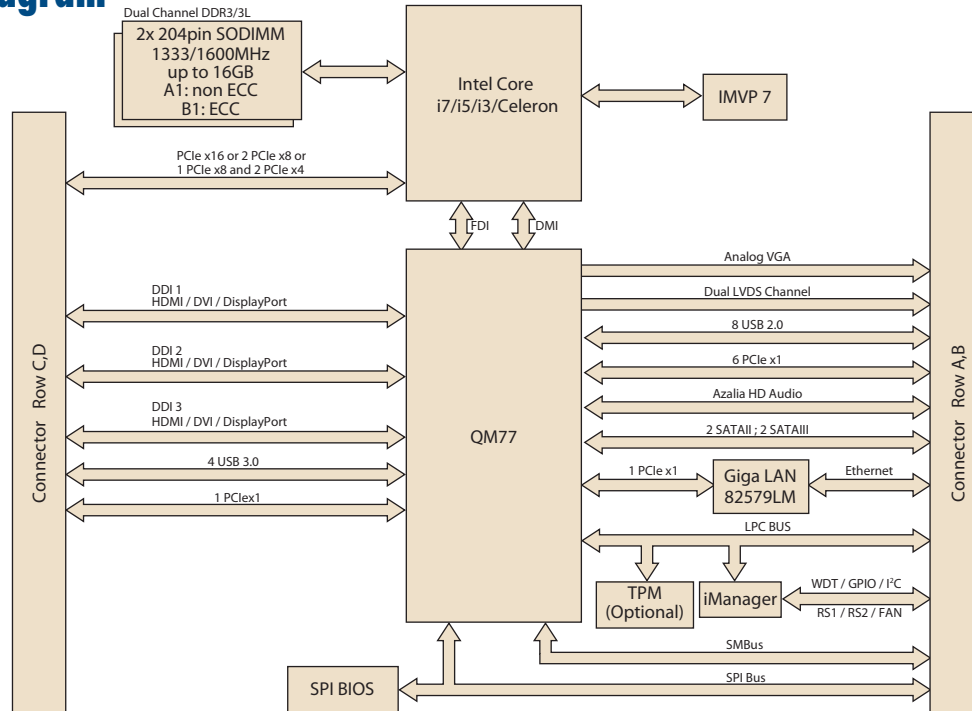
#### Software APIs:



### Specifications

|                    |                          |                                                                                                                    |
|--------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------|
| Form Factor        |                          | COM Express 2.0 Basic Module, Type 6 Pin-out                                                                       |
| Processor System   | CPU                      | Intel Core i7-3615QE Processor (4C, 6M Cache, 2.3 GHz)                                                             |
|                    |                          | Intel Core i7-3612QE Processor (4C, 6M Cache, 2.1 GHz)                                                             |
|                    |                          | Intel Core i7-3555LE Processor (2C, 4M Cache, 2.5 GHz)                                                             |
|                    |                          | Intel Core i7-3517UE Processor (2C, 4M Cache, 1.7 GHz)                                                             |
|                    |                          | Intel Core i5-3610ME Processor (2C, 3M Cache, 2.7 GHz)                                                             |
|                    |                          | Intel Core i3-3120ME Processor (2C, 3M Cache, 2.4 GHz)                                                             |
|                    |                          | Intel Core i3-3217UE Processor (2C, 3M Cache, 1.6 GHz)                                                             |
|                    |                          | Intel Celeron 1020E Processor (2C, 2M Cache, 2.2 GHz)                                                              |
|                    |                          | Intel Celeron 1047UE Processor (2C, 2M Cache, 1.4 GHz)                                                             |
|                    |                          | Intel Celeron 927UE Processor (1C, 1M Cache, 1.5 GHz)                                                              |
|                    | System Chipset           | Intel QM77                                                                                                         |
|                    | BIOS                     | AMI EFI 64Mb                                                                                                       |
| Memory             | Memory Technology        | DDR3 1333/1600 MHz, DDR3L 1333 MHz                                                                                 |
|                    | ECC Support              | A1 Series: not supported, B1 Series: supported                                                                     |
|                    | Max Capacity             | 16 GB                                                                                                              |
|                    | Socket                   | 2 x 204-pin SODIMM sockets                                                                                         |
| Display            | Graphics                 | Intel Gfx Engine                                                                                                   |
|                    | LCD                      | Single and dual channel 18/24-bit LVDS                                                                             |
|                    | VGA                      | 2048 x 1536                                                                                                        |
|                    | DDI                      | 3 ports support HDMI, DVI, DisplayPort                                                                             |
|                    | Multi-Displays           | 3 independent displays: VGA, LVDS, DVI, HDMI, DisplayPort                                                          |
| Ethernet           | Chipset                  | 82579LM                                                                                                            |
|                    | Speed                    | 10/100/1000 Mbps                                                                                                   |
| WatchDog Timer     |                          | 65536 level, 0 ~ 65535 sec                                                                                         |
| Expansion          |                          | PEG x16, 7 PCIe x1                                                                                                 |
| I/O                | SATA                     | 2 SATAIII<br>2 SATAII                                                                                              |
|                    | 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 (12 V, 5 Vsb)<br>AT (12 V)                                                                                     |
|                    | Power Consumption (Max.) | i7-3615QE w/ DDR3 16 GB: 41.8 W @ 12 V                                                                             |
|                    | Power Consumption (Idle) | i7-3616QE w/ DDR3 16 GB: 5.4 W @ 12 V                                                                              |
| Environment        | Operating Temperature    | 0 ~ 60° C (32 ~ 140° F)                                                                                            |
| Operating Humidity | Humidity                 | Operating: 40° C @ 95% relative humidity, non-condensing<br>Storage: 60° C @ 95% relative humidity, non-condensing |
| Mechanical         | Dimensions               | 125 x 95 mm (4.92" x 3.74")                                                                                        |

## Block Diagram



## Ordering Information

| Part No.         | CPU                     | CPU TDP | LLC  | PCH  | DDR3 SODIMM | LVDS      | VGA | DDI | Giga LAN | HDA | PEG x16 | PCIe x1 | USB 2.0 | USB 3.0 | SATA   | LPC | Power  | Thermal Solution | Operating Temp. |
|------------------|-------------------------|---------|------|------|-------------|-----------|-----|-----|----------|-----|---------|---------|---------|---------|--------|-----|--------|------------------|-----------------|
| SOM-5892FG-U3A1E | Core™ i7-3615QE 2.3 GHz | 45W     | 6 MB | QM77 | non-ECC     | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | 0 ~ 60° C       |
| SOM-5892FG-U1A1E | Core™ i7-3612QE 2.1 GHz | 35W     | 6 MB | QM77 | non-ECC     | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | 0 ~ 60° C       |
| SOM-5892FG-U5A1E | Core™ i7-3555LE 2.5 GHz | 25W     | 4 MB | QM77 | non-ECC     | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | 0 ~ 60° C       |
| SOM-5892FG-S7A1E | Core™ i7-3517UE 1.7 GHz | 17W     | 4 MB | QM77 | non-ECC     | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | 0 ~ 60° C       |
| SOM-5892FG-U7A1E | Core™ i5-3610ME 2.7 GHz | 35W     | 3 MB | QM77 | non-ECC     | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | 0 ~ 60° C       |
| SOM-5892FG-U4A1E | Core™ i3-3120ME 2.4 GHz | 35W     | 3 MB | QM77 | non-ECC     | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | 0 ~ 60° C       |
| SOM-5892FG-S6A1E | Core™ i3-3217UE 1.6 GHz | 17W     | 3 MB | QM77 | non-ECC     | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | 0 ~ 60° C       |
| SOM-5892FG-U2A1E | Celeron® 1020E 2.2 GHz  | 35W     | 2 MB | QM77 | non-ECC     | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | 0 ~ 60° C       |
| SOM-5892FG-S4A1E | Celeron® 1047UE 1.4 GHz | 17W     | 2 MB | QM77 | non-ECC     | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | 0 ~ 60° C       |
| SOM-5892ZG-S5A1E | Celeron® 927UE 1.5 GHz  | 17W     | 1 MB | QM77 | non-ECC     | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | 0 ~ 60° C       |
| SOM-5892ZG-U5A1E | Core™ i7-3555LE 2.5 GHz | 25W     | 4 MB | QM77 | non-ECC     | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | -20 ~ 80° C     |
| SOM-5892ZG-U5A1E | Core™ i7-3555LE 2.5 GHz | 25W     | 4 MB | QM77 | non-ECC     | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | -40 ~ 85° C     |
| SOM-5892ZG-S7A1E | Core™ i7-3517UE 1.7 GHz | 17W     | 4 MB | QM77 | non-ECC     | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | -20 ~ 80° C     |
| SOM-5892ZG-S7A1E | Core™ i7-3517UE 1.7 GHz | 17W     | 4 MB | QM77 | non-ECC     | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | -40 ~ 85° C     |
| SOM-5892ZG-S6A1E | Core™ i3-3217UE 1.6 GHz | 17W     | 3 MB | QM77 | non-ECC     | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | -20 ~ 80° C     |
| SOM-5892ZG-S6A1E | Core™ i3-3217UE 1.6 GHz | 17W     | 3 MB | QM77 | non-ECC     | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | -40 ~ 85° C     |
| SOM-5892ZG-S4A1E | Celeron® 1047UE 1.4 GHz | 17W     | 2 MB | QM77 | non-ECC     | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | -20 ~ 80° C     |
| SOM-5892ZG-S4A1E | Celeron® 1047UE 1.4 GHz | 17W     | 2 MB | QM77 | non-ECC     | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | -40 ~ 85° C     |
| SOM-5892FG-U3B1E | Core™ i7-3615QE 2.3 GHz | 45W     | 6 MB | QM77 | ECC         | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | 0 ~ 60° C       |
| SOM-5892FG-U7B1E | Core™ i5-3610ME 2.7 GHz | 35W     | 3 MB | QM77 | ECC         | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | Yes | AT/ATX | Active           | 0 ~ 60° C       |
| SOM-5892FG-S6B1E | Core™ i3-3217UE 1.6 GHz | 17W     | 3 MB | QM77 | ECC         | 18/24-bit | Yes | 3   | 1        | Yes | 1       | 7       | 8       | 4       | 4 SATA | 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 |

## Optional Accessories

| Part No.       | Description                            |
|----------------|----------------------------------------|
| 1960048820N001 | Semi-Cooler 125x95x33.5mm with 12V Fan |

## Packing List

| Part No.       | Description         | Quantity |
|----------------|---------------------|----------|
| -              | SOM-5892 CPU Module | 1        |
| 1960052353N011 | Heatspreader        | 1        |

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