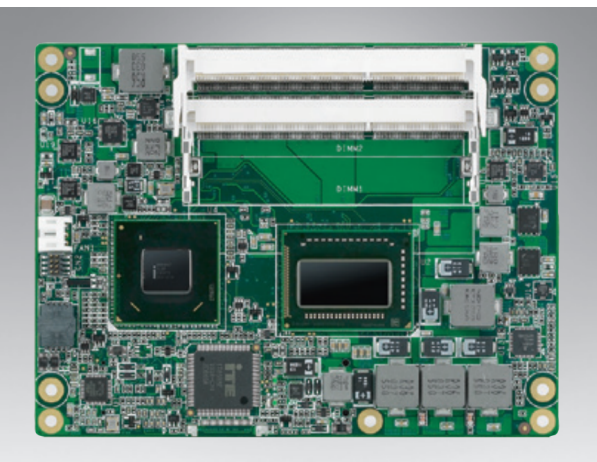


SOM-5890



Intel® Core™ i7/i5/i3/Celeron® processor

Intel® Gfx supports VGA, 18/24-bit 2-CH LVDS, HDMI, DVI, DP

Supports Dual Channel DDR3-1333 SODIMM sockets up to 16 GB

Standard System On Module functions

Processor: Intel® Core™ i7/i5/i3 and Celeron processors

BIOS: AMI EFI 8MB Flash

Chipset: Intel® QM67 Chipset

Intel Smart Cache:

- Intel® Core i7: 6 MB (Quad Core) or 4 MB (Duo Core) Smart Cache

- Intel® Core i5/i3: 3 MB Smart Cache

- Intel® Celeron: 2 MB Smart Cache

System memory: 2 204-pin SODIMM support non-ECC (A version) or ECC (B version) DDR3-1066/1333 up to 16GB

Power management: Supports enhanced Intel SpeedStep technology, S0, S3, S4, S5, C0, C1, C1E, C3, C6, C7, and ACPI/APM.

SATA interface: 2 SATAIII channel up to 600MB/s and 2 SATAII channel up to 300MB/s

Watchdog timer: 65536 levels timer interval, from 0 to 65535 sec multi-level and multi-option WatchDog Timer

USB interface: Supports 8 USB 2.0 ports

Expansion Interface: Supports PEG x16, 7 PCIe x1 (PCIe x4 option), LPC, SMBus, I2C

Display Interface

Chipset: Intel Core i processor integrated 6th generation graphics core with 12 execution units. Support DX10.1, Open GL 3.0, full VC/VC1/MPEG2 HW Decode

Display type: VGA, LVDS, HDMI, DVI, Displayport

Display mode:

- VGA port: 2048x1536
- LVDS: Dual Channel 18/24-bit
- HDMI/DVI: 1920x1200
- Displayport: 2560x1600
- GMA driver supports up to 2 independent displays
- Four independent display supported with hybrid multi-monitor capability (integrated and discrete graphics working simultaneously).

Ethernet

Chipset: Intel 82579LM Gigabit Ethernet. Base on IEEE 10BASE-T, 100BASETX and 1000BASE-T standard.

Mechanical and environmental

Dimensions: COM-Basic form-factor, 125 mm x 95 mm (4.92" x 3.74")

Power supply voltage: +12 V power only (+5 VSB is need for ACPI and ATX power)

Power requirement: SOM-5890FG-U1B1E w/ DDR3-1333 2GB ECC Memory

3.57A @ +12V

Operating temperature: 0 ~ 60° C (32 ~ 140° F)

Operating humidity: 0% ~ 90% relative humidity, non-condensing

Weight: 0.103 Kg (weight of total package)

SOM-5890 is a COM-Express basic module with Type 6 pin-out that fully complies with the PCI Industrial Computer Manufacturers PICMG COM Express standard. The new CPU module integrates Intel 2nd Generation Core i7, i5, i3, and Celeron processors (code name Sandy Bridge) which support Intel 6th generation graphics core with AVC/VC1/MPEG2 HW decode. It also integrates QM67 (codename Cougar Point) chipset which provides state-of-the-art interface such as PCI Express Gen 2 and SATA Gen3. In a basic form factor of 125mm x 95mm, the SOM-5890 provides a scalable high performance and easy to integrate solution for customers' applications by utilizing a plug-in CPU module on an application-specific customer solution board.

The SOM-5890 with advanced I/O capacity incorporates serial differential signaling technologies such as PCI Express, Serial ATA, USB 2.0, LVDS and HDMI/DVI/Displayport interfaces. SOM-5890 offers design partners more choices for their own applications needing higher computing speeds while maintaining a basic form factor.

SOM-5890 complies with the "Green Function" standard and supports Doze, Standby and Suspend modes. The small size (125 mm x 95 mm) and use of two high capacity connectors based on the proven COM-Basic form factor, allows the COMbasic modules to be easily and securely mounted onto a customized solution board or our standard SOM-DB5700 development board.

The SOM-5890 is a highly integrated multimedia COM module that combines audio, video, and network functions. It provides excellent

processing capability via Intel 2nd Gen Core i processor, dual channel LVDS, HDMI, DVI,and Displayport for multi-display, DDR3 non-ECC or ECC memory (A or B version respectively) up to 16 GB, and high definition audio interfaces.

Specifications

SOM Type:

COM Express Modules

Processor

Embedded Intel Core i7/i5/i3/Celeron® processor

Clock Speed:

2.5 GHz

Real Time Clock:

Processor Misc.:

Embedded Intel® Core™ i7/i5/i3/Celeron® processor + QM67

i7-2715QE Quad Core 2.1 GHz/ 45W

i7-2655LE: Dual Core 2.2 GHz/ 25W

i7-2610UE: Dual Core 1.5 GHz/ 17W

i5-2515E: Dual Core 2.5 GHz/ 35W

i3-2310E: Dual Core 2.1 GHz/ 35W

i3-2340UE: Dual Core 1.3 GHz/ 17W

B810E: Dual Core 1.6 GHz/ 35W

847E : Dual Core 1.1 GHz/ 17W

827E : Single Core 1.4 GHz/ 17W

Memory

BIOS/ Bootloader:

AMI EFI

Memory Misc.:

Technology DDR3 1066/1333 MHz

ECC Support A1 Series - not supported, B1 Series - supported

Max. Capacity 16 GB

Socket 2 x 204-pin SODIMM sockets

Primary I/O

8x GPIO

Disk Interface:

2x SATA III / 2x SATAII

Video Out:

VGA

2x LVDS	
& 3x DDI ports (configurable HDMI/DVI/DisplayPort)	
Audio:	
High definition audio interface	
Ethernet:	
Intel 82579LM Gigabit Ethernet	
USB:	
8 x USB 2.0	
Serial Ports:	
2x COM	
Watchdog:	
Secondary I/O	
Front Panel	
Keypad:	
PS/2:	
Expansion	
Bus Misc.:	
1x PEG x16,	
7x PCIe x1	
LPC	
SPI	
SMBus	
I2C	
Analog	
A/D:	
D/A:	
Dimensions	
Dimensions:	
4.92 × 3.74 in	
Form Factor:	
COM Express Basic	
Dimensions Misc.:	
Dimensions 125 x 95 mm (4.92" x 3.74")	
Environmental nents	
Pricing	
SOM-5890FG-S1A	
SOM-5890FG-S1A1E, COMe-T6, 847E 2x1.1GHz, 2xSATA, 2xCOM, 8xUSB2, GbE, 3xDP, LVDS	
\$665.00	
Order:	
0	
Parent Product:	
SOM-5890	
Base Product:	
SOM-5890	
SOM-5890FG-S3A	
SOM-5890FG-S3A1E, COMe-T6, i3-2340UE 2x1.3GHz, 2xSATA, 2xCOM, 8xUSB2, GbE, 3xDP, LVDS	
\$900.00	

Order:
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Parent Product:
SOM-5890
Base Product:
SOM-5890
SOM-5890FG-S4A
SOM-5890FG-S4A1E, COMe-T6, 827E 2x1.4GHz, 2xSATA, 2xCOM, 8xUSB2, GbE, 3xDP, LVDS
\$625.00

Order:
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Parent Product:
SOM-5890
Base Product:
SOM-5890
SOM-5890FG-S5A
SOM-5890FG-S5A1E, COMe-T6, i7-2610UE 2x1.5GHz, 2xSATA, 2xCOM, 8xUSB2, GbE, 3xDP, LVDS
\$1,010.00

Order:
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Parent Product:
SOM-5890
Base Product:
SOM-5890
SOM-5890FG-S5B
SOM-5890FG-S5B1E, COMe-T6, i7-2610UE 2x1.5GHz, ECC, 2xSATA, 2xCOM, 8xUSB2, GbE, 3xDP, LVDS
\$965.00

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Base Product:
SOM-5890
SOM-5890FG-S6A
SOM-5890FG-S6A1E, COMe-T6, B810E 2x1.6GHz, 2xSATA, 2xCOM, 8xUSB2, GbE, 3xDP, LVDS
\$590.00

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SOM-5890FG-U0A
SOM-5890FG-U0A1E, COMe-T6, i3-2310E 2x2.1GHz, 2xSATA, 2xCOM, 8xUSB2, GbE, 3xDP, LVDS
\$860.00

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Base Product:
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SOM-5890FG-U1A
SOM-5890FG-U1A1E, COMe-T6, i7-2715QE 4x2.1GHz, 2xSATA, 2xCOM, 8xUSB2, GbE, 3xDP, LVDS

\$1,110.00
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Parent Product:
SOM-5890
Base Product:
SOM-5890
SOM-5890FG-U1B
SOM-5890FG-U1B1E, COMe-T6, i7-2715QE 4x2.1GHz, ECC, 2xSATA, 2xCOM, 8xUSB2, GbE, 3xDP, LVDS
\$1,085.00
Order:
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Parent Product:
SOM-5890
Base Product:
SOM-5890
SOM-5890FG-U2A
SOM-5890FG-U2A1E, COMe-T6, i7-2655LE 2x2.2GHz, 2xSATA, 2xCOM, 8xUSB2, GbE, 3xDP, LVDS
\$1,055.00
Order:
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Parent Product:
SOM-5890
Base Product:
SOM-5890
SOM-5890FG-U2B
SOM-5890FG-U2B1E, COMe-T6, i7-2655LE 2x2.2GHz, ECC, 2xSATA, 2xCOM, 8xUSB2, GbE, 3xDP, LVDS
\$1,020.00
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Parent Product:
SOM-5890
Base Product:
SOM-5890
SOM-5890FG-U5A
SOM-5890FG-U5A1E, COMe-T6, i5-2515E 2x2.5GHz, 2xSATA, 2xCOM, 8xUSB2, GbE, 3xDP, LVDS
\$925.00
Order:
0
Parent Product:
SOM-5890
Base Product:
SOM-5890
SOM-5890FG-U5B
SOM-5890FG-U5B1E, COMe-T6, i5-2515E 2x2.5GHz, ECC, 2xSATA, 2xCOM, 8xUSB2, GbE, 3xDP, LVDS
\$875.00
Order:
0
Parent Product:
SOM-5890
Base Product:
SOM-5890
SOM-5890Z2-S5A

SOM-5890Z2-S5A1E, COMe-T6, i5-2515E 2x2.5GHz, 2xSATA, 2xCOM, 8xUSB2, GbE, 3xDP, LVDS(-40~85C)

\$1,410.00

Order:

0

Parent Product:

SOM-5890

Base Product:

SOM-5890

SOM-5890Z-S5A

SOM-5890Z-S5A1E, COMe-T6, i5-2515E 2x2.5GHz, 2xSATA, 2xCOM, 8xUSB2, GbE, 3xDP, LVDS(-20~80C)

\$1,310.00

Order:

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Parent Product:

SOM-5890

Base Product:

SOM-5890

Non-Stock NCNR:

0

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