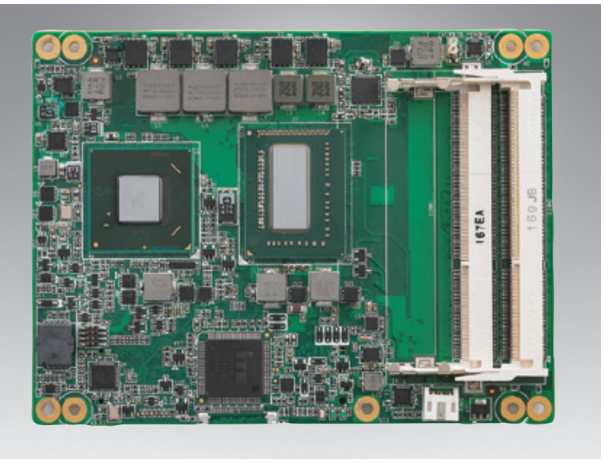
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SOM-5892



Embedded Intel® Core™ i7/i5/i3/Celeron® processor + QM77

ƒ Supports up to 16 GB Dual Channel DDR3-1600/DDR3L-1333 SODIMM memory in two sockets

ƒ Supports PCIe x16, 7x PCIe x1

SATA drive ports: 2x SATAIII, 2x SATAII

USB ports: 8x USB 2.0, 4x USB 3.0

Gigabit ethernet

Supports 3 independent displays: VGA, LVDS, DVI, HDMI, DisplayPort

Board Information-

Pin Definition: PICMG COM.0 R2.0 Type 6 pin-out definition

Form Factor: PICMG COM.0 R2.0 Basic Module 125 x 95 mm

CPU: 3rd Generation Intel® Core Processor

Chipset: Intel® QM77 Express Chipset

Memory: 2 SODIMM Socket for DDR3-1600 or DDR3L-1333, up to 16GB

BIOS: AMI UEFI 64Mbit SPI BIOS

Power management: Supports power saving modes including Normal /

Standby / Suspend modes. ACPI 2.0 compliant

Display-

Graphic Core: Intel® HD Graphic 4000 supports DX11, OGL3.1, OCL1.1, and MPEG2, AVC/H.264, VC-1 HW decode/encode/transcode acceleration

VGA: Resolution up to 2048 x 1536

LVDS: Supports single/dual channel 18/24-bit, resolution up to 1920 x 1200 @

60 Hz

HDMI/DVI/DP: Supports 3 ports HDMI (default), DVI, or DP multiplexed (BIOS

modification needed).

Resolution: HDMI/DVI up to 1920 x 1200 @ 60 Hz

DP up to 2560 x 1600 @ 60 Hz

Dual Display: VGA + LVDS, VGA + HDMI/DVI/DP, LVDS + HDMI/DVI/DP,

HDMI/DVI/DP + HDMI/DVI/DP

Triple Display: LVDS + DP + DP

Expansion Interface -

PCI Express x16: Supports default 1 port PCIe x16 compliant to PCIe Gen2* (5.0 GT/s) specification, several configurable combinations may need BOM reworks.

PCI Express x1: Supports default 7 ports PCIe x1 compliant to PCIe Gen2* (5.0 GT/s) specification, several configurable combinations may need BIOS modification.

Audio Interface: Intel HD Audio interface

LPC Bus

SMBus

I2C Bus: Up to 400 KHz

SPI: Supports SPI BIOS only

I/O-

Ethernet: Intel 82579LM Gigabit LAN supports 10/100/1000 Mbps Speed

SATA: Supports 2 ports SATA Gen3 (600 Gb/s), 2 ports SATA Gen2 (300 Gb/s)

USB Interface: Supports 4 USB 3.0 ports, 8 USB 2.0 ports

Serial Port: Supports 2 x 2-wire serial ports

Express Card: 2 ports

Panel Control: Supports panel backlight on/off control, brightness control

Thermal Protection: Supports thermal shutdown or CPU throttling

Watchdog Timer: 65536 level timer interval, from 0~65535 sec, multi-level, multi-option watchdog timer

Smart Fan: 1 port on Module, 1 port down to carrier board

GPIO: 8 GPIO

Hardware Monitor: Vin, 5VSB, CMOS

TPM: BOM option, default not support

Mechanical and Environmental Specification-

Dimensions: 125 x 95 mm (4.92" x 3.74")

Power Type and Supply Voltage:

– ATX: +12 V and +5 VSB (standby power)

– AT: +12 V

– CMOS Battery: +3.3 V

Power Requirement:

– Test condition: SOM-5892FG-U1A1E (i7-3612QE), DDR3-1333 4GB, WIN7

32-bit, under 12 V and 5VSB input power supply.

– Idle: 6.6 W

– Max: 36 W (Burn-in V6.0 Pro)

Temperature Specification:

– Operating: 0 ~ 60° C (32 ~ 140 ° F)

– Storage: -40 ~ 85° C (-40 ~ 185° F)

Humidity Specification:

– Operating: 40° C @ 95% relative humidity, non-condensing

– Storage: 60° C @ 95% relative humidity, non-condensing

SOM-5892 is a COM-Express Basic module with pin-out Type 6 that fully complies with the PICMG (PCI Industrial Computer Manufactures Group) COM.0 R2.0 specification. The CPU module builds Intel 3rd Generation Core i processor Ivy Bridge, PCH QM77, and other peripheral chips to fulfill COM specified functionalities. Intel Ivy Bridge uses 22nm and 3D Tri-gate Transistor technologies that brings 15% performance improvement than previous, and integrates powerful Intel HD Graphic 4000 that supports AVC/H.264, VC-1, and MPEG2 hardware encode/decode/transcode.

With Intel PCH QM77, SOM-5892 provides advance interfaces such as PCI Express Gen 3rd, SATA Gen 3rd, and USB3.0. Moreover, it is

the first embedded chipset which can support 3 display contents simultaneously.

SOM-5892 is suitable for computing intensive, thermal sensitive, graphics/media insensitive, and I/O demanding applications.

Specifications

SOM Type:
COM Express Modules

Processor

Processor:
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

i7-3615QE, Quad Core 2.3 GHz/ 45W

i7-3612QE, Quad Core 2.1 GHz/ 35W

i7-3555LE, Dual Core 2.5 GHz/ 25W

i7-3517UE, Dual Core 1.7 GHz/ 17W

i5-3610ME, Dual Core 2.7 GHz/ 35W

i3-3120ME, Dual Core 2.4 GHz/ 35W

i3-3217UE, Dual Core 1.6 GHz/ 17W

1020E, Dual Core 2.2 GHz/ 35W

1047UE, Dual Core 1.4 GHz/ 17W

927UE, Single core 1.5 GHz/ 17W

Memory

BIOS/ Bootloader:
AMI EFI

Primary I/O

GPIO:
8x GPIO
Disk Interface:
2x SATA III & 2x SATA II
Video Out:
VGA
LVDS
DVI
HDMI
DP
& 2x LVDS
Audio:
HD Audio

Ethernet:
Intel 82579LM Gigabit Ethernet
USB:
4x USB 3.0 & 8x USB 2.0
Serial Ports:
2x COM
Watchdog:

Secondary I/O

LPT Port:
Keypad:
PS/2:

Expansion

Bus Misc.:
PCI Express x1: Supports default 7 ports PCIe x1 compliant to PCIe Gen2* (5.0 GT/s) specification, several configurable combinations may need BIOS modification. Please contact Advantech sales or FAE for more details.

LPC Bus

SMBus

I2C Bus: Up to 400 KHz

SPI: Supports SPI BIOS only

Analog

A/D:
D/A:

Dimensions

Dimensions:
4.92 × 3.74 in
Form Factor:
COM Express Basic

Power Requirements

Voltage:
12 V
Power Misc.:

Environmental

Low Operating Temperature:
0 C
High Operating Temperature:
60 C
Upper Operating Humidity:
95%
Environmental Misc.:
Operating temperatures- Standard- 0 ~ 60° C Wide Temp- -20 ~ 80° C (optional) Industrial- -40 ~ 85° C (optional)

Pricing

SOM-5892FG-S4A
SOM-5892FG-S4A1E, COMe-T6, 1047UE 2x1.4GHz, 4xSATA, 2xCOM, 4xUSB3, 8xUSB2, GbE, 3xDP, 3xVGA/LVDS/DVI

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SOM-5892FG-U4A
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$860.00
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SOM-5892FG-U5A
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SOM-5892FG-U7A
SOM-5892FG-U7A1E, COMe-T6, i5-3610ME 2x2.7GHz, 4xSATA, 2xCOM, 4xUSB3, 8xUSB2, GbE, 3xDP, 3xVGA/LVDS/DVI
$925.00
Order:
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Parent Product:
SOM-5892
Base Product:
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SOM-5892FG-U7B
SOM-5892FG-U7B1E, COMe-T6, i5-3610ME 2x2.7GHz, ECC, 4xSATA, 2xCOM, 4xUSB3, 8xUSB2, GbE, 3xDP, 3xVGA/LVDS/DVI
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$1,300.00
Order:
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Parent Product:
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Base Product:
SOM-5892
SOM-5892Z2-S7A
SOM-5892Z2-S7A1E, COMe-T6, i7-3517UE 2x1.7GHz, 4xSATA, 2xCOM, 4xUSB3, 8xUSB2, GbE, 3xDP, 3xVGA/LVDS/DVI (-40~85C)
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Parent Product:
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SOM-5892Z-S7A1E, COMe-T6, i7-3517UE 2x1.7GHz, 4xSATA, 2xCOM, 4xUSB3, 8xUSB2, GbE, 3xDP, 3xVGA/LVDS/DVI (-20~80C)
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