

SOM-5892

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



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:



Watchdog



PC



SMBus



H/W Monitor



GPIO



Brightness Control

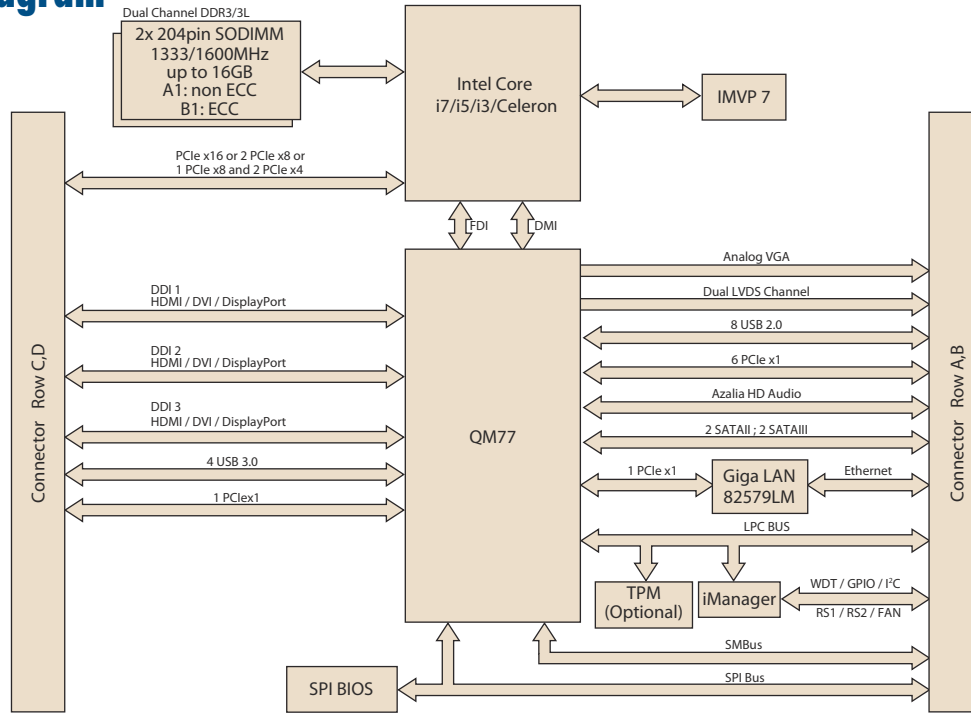


iManager susiAccess CE FCC

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
Ethernet	Multi-Displays	3 independent displays: VGA, LVDS, DVI, HDMI, DisplayPort
	Chipset	82579LM
WatchDog Timer	Speed	10/100/1000 Mbps
		65536 level, 0 ~ 65535 sec
Expansion		PEG x16, 7 PCIe x1
	I/O	SATA
USB		8 USB 2.0 4 USB 3.0
Audio		HD Audio
GPIO		8-bit
COM		2 Ports
TPM		Optional
Power		Power Type
	Power Supply Voltage	ATX (12 V, 5 Vsb) 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)
	Humidity	Operating: 40° C @ 95% relative humidity, non-condensing 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-5892FG-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-5892Z-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-5892Z-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-5892Z-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-5892Z-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-5892Z-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
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SOM-5892Z-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
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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