

SOM-5790

2nd Gen. Intel® Core™ Processor COM Express® Basic Module



Features

- Embedded Intel® Core™ i7/i5/i3/Celeron® processor + QM67
- Intel® Gfx supports 18/24-bit 2-CH LVDS, VGA
- Supports Dual Channel DDR3-1333 SODIMM sockets up to 16 GB
- Supports 5 PCIe1, 2 SATAIII, 2 SATAII, 8 USB 2.0, IDE, PCI
- Supports iManager, SUSIAccess and Embedded Software APIs

Software APIs:

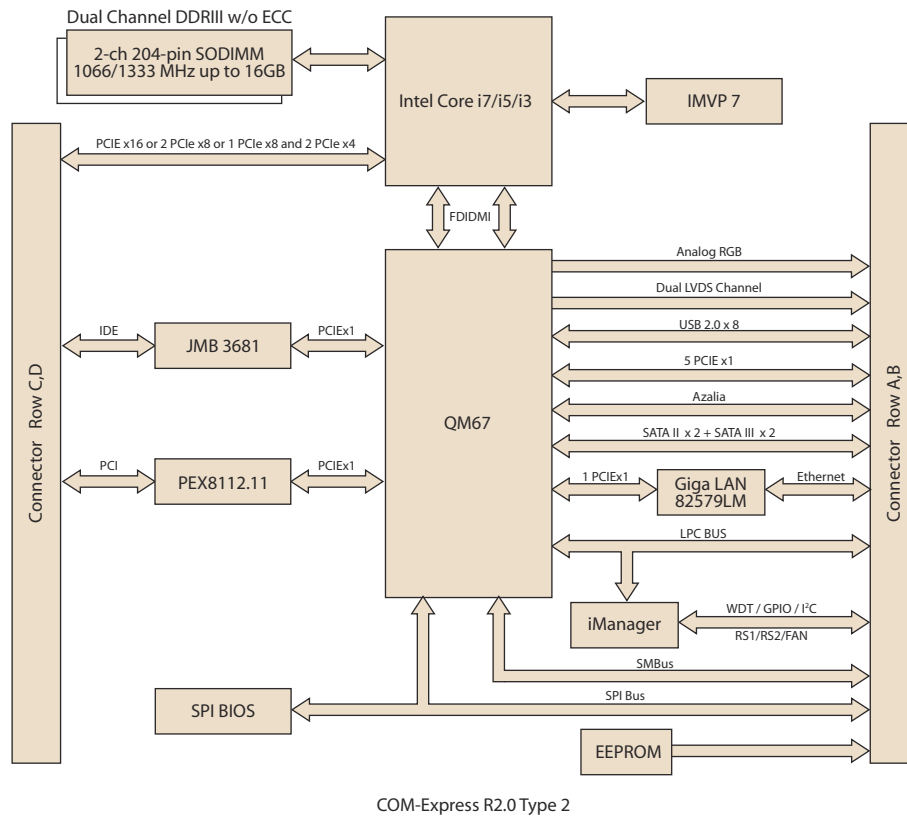


iManager susiAccess CE FCC

Specifications

Form Factor		COM Express 2.0 Basic Module, Type 2 Pin-out		
Processor System	CPU	Intel Core i7-2715QE Processor (6 M Cache, 2.1 GHz) Intel Core i7-2655LE Processor (4 M Cache, 2.2 GHz) Intel Core i7-2610UE Processor (4 M Cache, 1.5 GHz) Intel Core i5-2515E Processor (3 M Cache, 2.5 GHz) Intel Celeron B810E Processor (2C, 2M Cache, 1.6GHz) Intel Celeron 827E Processor (1C, 1.5M Cache, 1.4GHz)		
	System Chipset	Intel QM67		
	BIOS	AMI EFI 64Mb		
Memory	Technology	DDR3 1066/1333 MHz		
	ECC Support	-		
	Max. Capacity	16 GB		
	Socket	2 x 204-pin SODIMM sockets		
Display	Chipset	Intel GPU integrated in Core i7, Core i5, or Core i3		
	LVDS	Single and dual channel 18/24-bit LVDS		
	VGA	up to 2048 x 1536		
	TV-out	-		
Ethernet	Chipset	Intel 82579LM Gigabit Ethernet		
	Speed	10/100/1000 Mbps		
WatchDog Timer		65536 level timer interval, from 0~65535 sec, multi-level, multi-option watchdog timer		
Expansion		1 PEGx16, 5 PCIe1, PCI, LPC, SPI, SMBus, I2C		
I/O	PATA	1 x EIDE (UDMA 100)		
	SATA	2 x SATAIII (6.0 Gb/s), 2 x SATAII (3.0 Gb/s)		
	USB	8 x USB 2.0		
	Audio	High definition audio interface		
	GPIO	8-bit GPIO		
Power	Power Type	ATX, AT		
	Power Supply Voltage	+12 V and +5 VSB for ATX, +12V for AT		
	Power Consumption (Max:Burn-in Test)		+12 V @ 3.34 A (2715QE) +12 V @ 2.96 A (2655LE) +12 V @ 2.84 A (2515E)	
		Power Consumption (Min:OS idle)		+12 V @ 0.95 A (2715QE) +12 V @ 0.63 A (2655LE) +12 V @ 0.68 A (2515E)
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	LLC	Chipset	PCI	IDE	DDR3 SODIMM	LVDS	VGA	SDVO	Giga LAN	HDA	PEG x16	PCIe x1	USB 2.0	SATA	LPC	ATX Power	AT Power	Thermal Solution	Operating Temp.
SOM-5790FG-U1A1E	Core i7-2715QE 2.1 GHz	6 MB	QM67	4	1	non-ECC	18/24-bit	Yes	1	1	Yes	1	5	8	2 x SATA III 2 x SATA II	Yes	Yes	Yes	Active	0 ~ 60° C
SOM-5790FG-U2A1E	Core i7-2655LE 2.2 GHz	4 MB	QM67	4	1	non-ECC	18/24-bit	Yes	1	1	Yes	1	5	8	2 x SATA III 2 x SATA II	Yes	Yes	Yes	Active	0 ~ 60° C
SOM-5790FG-S5A1E	Core i7-2610QE 1.5 GHz	4 MB	QM67	4	1	non-ECC	18/24-bit	Yes	1	1	Yes	1	5	8	2 x SATA III 2 x SATA II	Yes	Yes	Yes	Active	0 ~ 60° C
SOM-5790FG-U5A1E	Core i5-2515E 2.5 GHz	3 MB	QM67	4	1	non-ECC	18/24-bit	Yes	1	1	Yes	1	5	8	2 x SATA III 2 x SATA II	Yes	Yes	Yes	Active	0 ~ 60° C
SOM-5790FG-S4A1E	Celeron B827E 1.4 GHz	1.5 MB	QM67	4	1	non-ECC	18/24-bit	Yes	1	1	Yes	1	5	8	2 x SATA III 2 x SATA II	Yes	Yes	Yes	Active	0 ~ 60° C
SOM-5790FG-S6A1E	Celeron B810E 1.6 GHz	2 MB	QM67	4	1	non-ECC	18/24-bit	Yes	1	1	Yes	1	5	8	2 x SATA III 2 x SATA II	Yes	Yes	Yes	Active	0 ~ 60° C

Note: Passive = fanless; Active = with fan

Development Board

Part No.	Description
SOM-DB5720-00A1E	Development Board for COM Express Type2

Packing List

Part No.	Description	Quantity
	SOM-5790 CPU Module	1
1960052353N001	Heatspreader for CPU Core i7/i5/i3 series	1
1960052353N011	Heatspreader for CPU Celeron series	1

Optional Accessories

Part No.	Description
1960048820N001	Cooler I-Arrandale M-41W 125X95X33-SC 12V0.45A