

SOM-5788

Intel® Core™ i7/i5/i3 Processor COM-Express Basic Module



iManager susiAccess CE FCC

Features

- Embedded Intel® Core™ i7/i5/i3 processor + QM57
- Intel GMA supports single and dual channel 18/24-bit LVDS, HDMI, Displayport, VGA
- Supports 2 DDR3-1066 memory SODIMM sockets up to 8 GB
- Supports 6 PCIe x1, 4 PCI masters, 4 SATAII, 8 USB 2.0, EIDE, GbE
- Supports iManager, SUSIAccess and Embedded Software APIs

Software APIs:

- Watchdog
- PC
- SMBus
- H/W Monitor
- GPIO

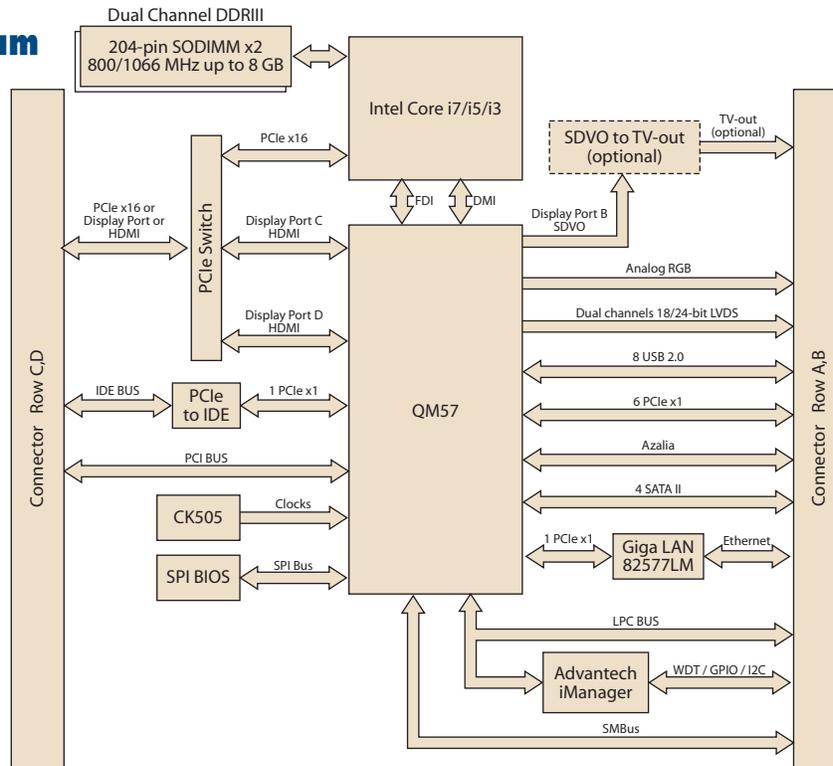
Utilities:

- BIOS flash
- Monitoring
- Embedded Security ID

Specifications

Form Factor		COM-Express Basic Module, Type II Pin-out
Processor System	CPU	Intel Core i7-610E Processor (4M Cache, 2.53 GHz) Intel Core i7-620LE Processor (4M Cache, 2.00 GHz) Intel Core i7-620UE Processor (4M Cache, 1.06 GHz) Intel Core i5-520E Processor (3M Cache, 2.40 GHz) Intel Core i3-330E Processor (3M Cache, 2.13 GHz) Intel Core i7-660UE Processor (4M Cache, 1.33 GHz) Intel Celeron P4505 Processor (2M Cache, 1.86 GHz) Intel Celeron U3405 Processor (2M Cache, 1.07 GHz)
	System Chipset	Intel QM57
	BIOS	AMI 64 Mbit Flash BIOS
Memory	Technology	DDR3 800/1066 MHz
	ECC Support	A1 Series - not supported, B1 Series - supported
	Max. Capacity	up to 8 GB
	Socket	Dual 204-pin SODIMM sockets
Display	Chipset	Intel GMA integrated in Core i7, Core i5, or Core i3
	LVDS	Single and dual channel 18/24-bit LVDS
	VGA	Up to 2048 x 1536
	HDMI/DVI	Shared with PEG
	Display Port	Shared with PEG
	TV-out	Shared with PEG (optional)
Ethernet	Chipset	Intel 82577LM Gigabit Ethernet
	Speed	10/100/1000 Mbps
WatchDog Timer		65536 level timer interval, from 0-65535 sec, multi-level, multi-option watchdog timer
Expansion		LPC, 6 PCIe x 1 and 1 PEG x 16, 4 PCI masters
I/O	PATA	1 EIDE (UDMA 100)
	SATA	4 SATAII (300 MB/s)
	USB	8 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
Environment	Operating Temperature	0 ~ 60° C (32 ~ 140° F)
	Operating Humidity	0% ~ 90% relative humidity, non-condensing
Mechanical	Dimensions	125 x 95 mm (4.92" x 3.74")

Block Diagram



Ordering Information

Part No.	CPU	LLC	Chipset	DD3 SODIMM	LVDS	VGA	TV-out	Giga LAN	HD Audio	PCIe x4	PCIe x1	PCI	USB 2.0	SATA II	LPC	SMBus	ATX Power	AT Power	Thermal Solution	Operating Temp.
SOM-5788FG-USA1E	Core i7-610E SV 2.53 GHz	4 MB	QM57	Non-ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	0 - 60° C
SOM-5788FG-U0A1E	Core i7-620LE LV 2.0 GHz	4 MB	QM57	Non-ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	0 - 60° C
SOM-5788FG-S1A1E	Core i7-620UE ULV 1.06 GHz	4 MB	QM57	Non-ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	0 - 60° C
SOM-5788FG-U4A1E	Core i5-520E SV 2.4 GHz	3 MB	QM57	Non-ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	0 - 60° C
SOM-5788FG-U1A1E	Core i3-330E SV 2.13 GHz	3 MB	QM57	Non-ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	0 - 60° C
SOM-5788FG-S9A1E	Celeron P4505 SV 1.86 GHz	2 MB	QM57	Non-ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	0 - 60° C
SOM-5788FG-S0A1E	Celeron U3405 ULV 1.07 GHz	2 MB	QM57	Non-ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	0 - 60° C
SOM-5788FG-S3A1E	Core i7-660UE ULV 1.33 GHz	4 MB	QM57	Non-ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	0 - 60° C
SOM-5788Z-S1A1E	Core i7-620UE ULV 1.06 GHz	4 MB	QM57	Non-ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	-20 - 80° C
SOM-5788Z-S1A1E	Core i7-620UE ULV 1.06 GHz	4 MB	QM57	Non-ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	-40 - 85° C
SOM-5788Z-U0A1E	Core i7-620LE LV 2.0 GHz	4 MB	QM57	Non-ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	-20 - 80° C
SOM-5788Z-U0A1E	Core i7-620LE LV 2.0 GHz	4 MB	QM57	Non-ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	-40 - 85° C
SOM-5788Z-S0A1E	Celeron U3405 1.07GHz	2 MB	QM57	Non-ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	-20 - 80° C
SOM-5788Z-S0A1E	Celeron U3405 1.07GHz	2 MB	QM57	Non-ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	-40 - 85° C
SOM-5788Z-S3A1E	Core i7-660UE 1.33GHz	4 MB	QM57	Non-ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	-20 - 80° C
SOM-5788Z-S3A1E	Core i7-660UE 1.33GHz	4 MB	QM57	Non-ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	-40 - 85° C
SOM-5788FG-USB1E	Core i7-610E SV 2.53 GHz	4 MB	QM57	ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	0 - 60° C
SOM-5788FG-S1B1E	Core i7-620UE ULV 1.06 GHz	4 MB	QM57	ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	0 - 60° C
SOM-5788FG-U4B1E	Core i5-520E SV 2.4 GHz	3 MB	QM57	ECC	18/24-bit	Yes	option	1	Yes	Option	6	4	8	4	1	1	Yes	Yes	Active	0 - 60° C

Note: Passive = fanless; Active = with fan

Development Board

Part No.	Description
SOM-DB5700G-00A2E	Development Board for COM-Express with GLAN

Optional Accessories

Part No.	Description
1960048820N001	Semi-Cooler 125 x 93.5 x 35.5 mm with 12 V Fan

Packing List

Part No.	Description	Quantity
-	SOM-5788 CPU Module	1
-	Utility CD	1
1960047959T001	Heatspreader	1