

SOM-5788

Intel® Intel® Core™ i7/i5 COM-Express CPU Module

Preliminary



Features

- Embedded Intel® Core™ i7/i5 processor + Ibexpeak-M QM57
- Intel® GMA supports 18/24-bit LVDS, HDMI, Displayport, TV-out, VGA
- Support 2 DDR3-1066 memory SODIMM sockets up to 8GB
- Support 6 PCIe1, 4 PCI masters, 4 SATAII, 8 USB 2.0, EIDE, GbE
- Support Embedded Software APIs and Utilities

Software APIs:



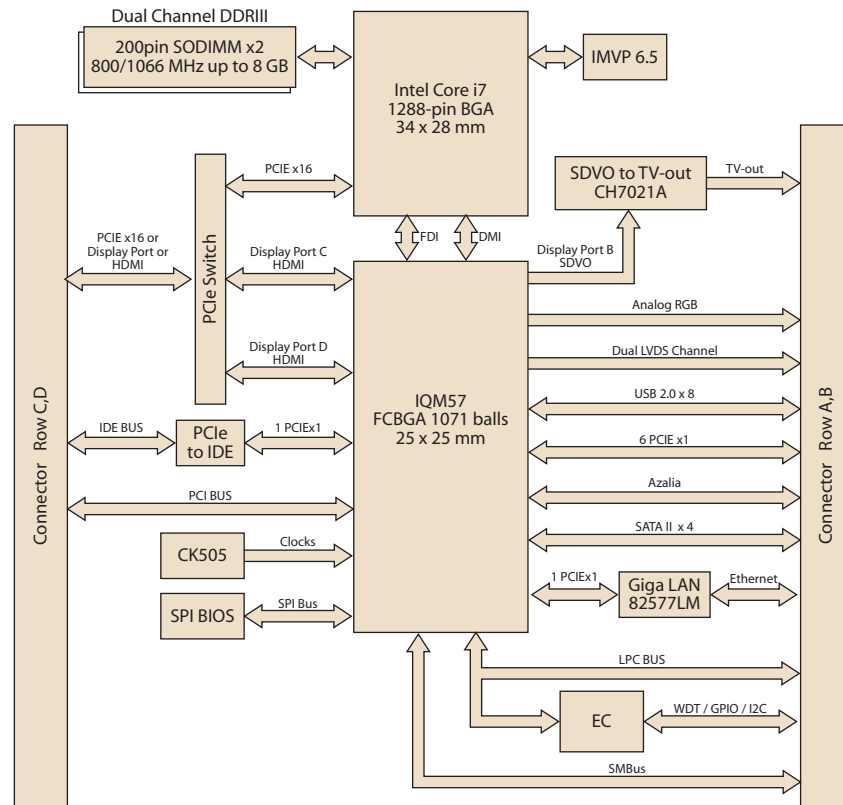
Utilities:



Specifications

Form Factor	COM-Express, Module Pin-out Type II	
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)
	System Chipset	Intel® Ibexpeak-M QM57
	BIOS	AMI 64 Mbit Flash BIOS
	Technology	DDR3 800/1066 MHz
Memory	Max. Capacity	up to 8 GB
	Socket	2 x 204-pin SODIMM sockets
	Chipset	Intel® GMA integrated in Core™ i7 or Intel® Core™ i5
Display	Graphic Engine	Intel Gen HDMI, DVI, TV-out shared with PEG
	LVDS	Single and Dual channel 18/24-bit LVDS
	VGA	up to 2048 x 1536
		HDMI, Displayport, TV-out shared with PEG
Ethernet	Chipset	Intel 82577LM Gigabit Ethernet
	Speed	10/100/1000Base-T
WatchDog Timer	256 levels timer interval, from 0 to 255 sec or min setup by software, jumperless selection, generates system reset	
Expansion	LPC, 6 PCIe x 1 and 1 PEG x 16, 4 PCI masters	
I/O	PATA	1 x EIDE (UDMA 100)
	SATA	4 x SATAII (300 MB/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 (Typical)	TBD
	Power Consumption (Max, test in HCT)	TBD
Environment	Operating Temperature	0 – 60° C (32 – 140° F) (-20 – 80° C degree optional by OEM)
	Operation Humidity	0% – 90% relative humidity, non-condensing
Mechanical	Dimension	95 x 125 mm (3.74" x 4.92")

Board Diagram



Ordering Information

Part No.	CPU	L2 Cache	Chipset	LVDS	VGA	Giga LAN	HD Audio	PCIe x 4	PCIe x 1	PCI	USB 2.0	SATA	LPC	SMBUS	ATX Power	AT Power	Thermal Solution	OperationTemp.
SOM-5788FG-S5A1E	Core i7-610E SV 2.53 GHz	4 MB	Intel® Core™ i7	18/24-bit	V	1	V	Option	6	4	8	3 x SATAII	1	1	V	V	Active	0 - 60° C
SOM-5788FG-L0A1E	Core i7-620LE LV 2.0 GHz	4 MB	Intel® Core™ i7	18/24-bit	V	1	V	Option	6	4	8	3 x SATAII	1	1	V	V	Active	0 - 60° C
SOM-5788FG-U1A1E	Core i7-620UE ULV 1.06 GHz	4 MB	Intel® Core™ i7	18/24-bit	V	1	V	Option	6	4	8	3 x SATAII	1	1	V	V	Active	0 - 60° C
SOM-5788FG-S4A1E	Core i5-520E SV 2.4 GHz	4 MB	Intel® Core™ i5	18/24-bit	V	1	V	Option	6	4	8	3 x SATAII	1	1	V	V	Active	0 - 60° C

Development Board

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

Packing List

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