

SOM-5788

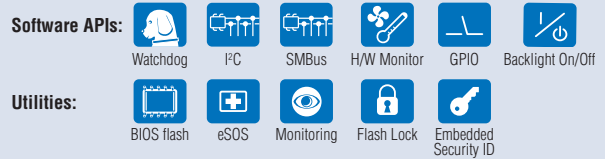
Intel® Intel® Core™ i7/i5 COM-Express CPU Module

Preliminary



Features

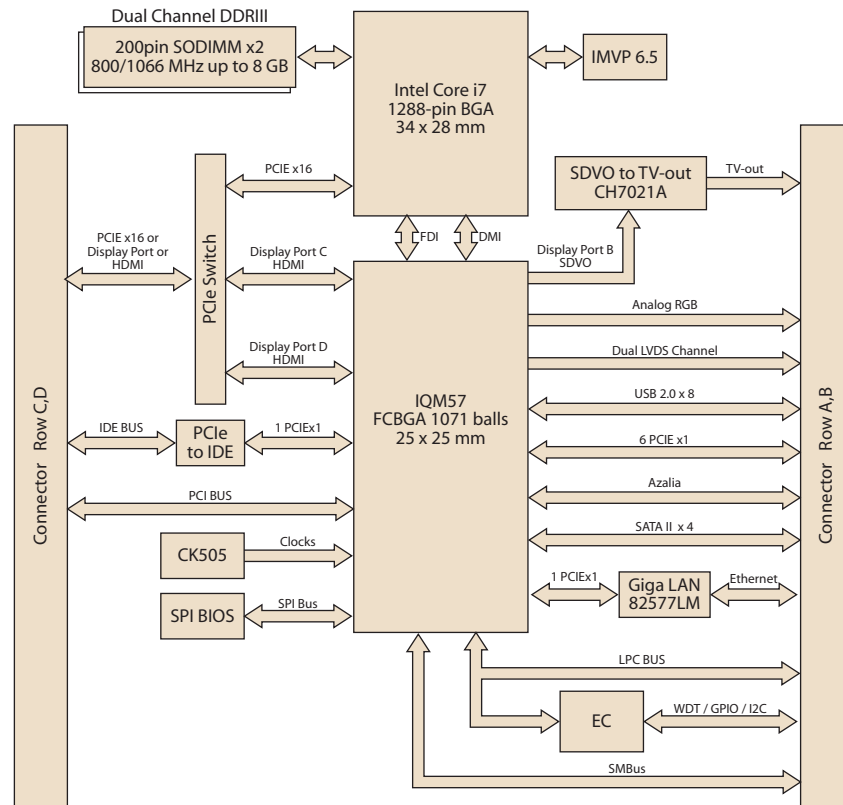
- Embedded Intel® Core™ i7/i5 processor + Ibexpeak-M QM57
- Intel® GMA supports 18/24-bit LVDS, HDMI, Displayport, TV-out, VGA
- Support 2 DDR3-1066 memory SODIMM sockets up to 8GB
- Support 6 PCIe1, 4 PCI masters, 4 SATAII, 8 USB 2.0, EIDE, GbE
- Support Embedded Software APIs and Utilities



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 |
| Memory | Technology | DDR3 800/1066 MHz |
| | Max. Capacity | up to 8 GB |
| | Socket | 2 x 204-pin SODIMM sockets |
| Display | Chipset | Intel® GMA integrated in Core™ i7 or Intel® Core™ i5 |
| | 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 |