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Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

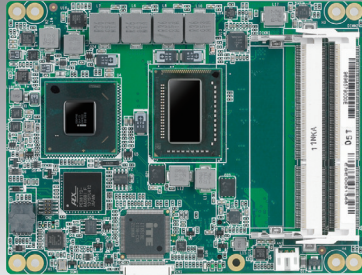
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



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:

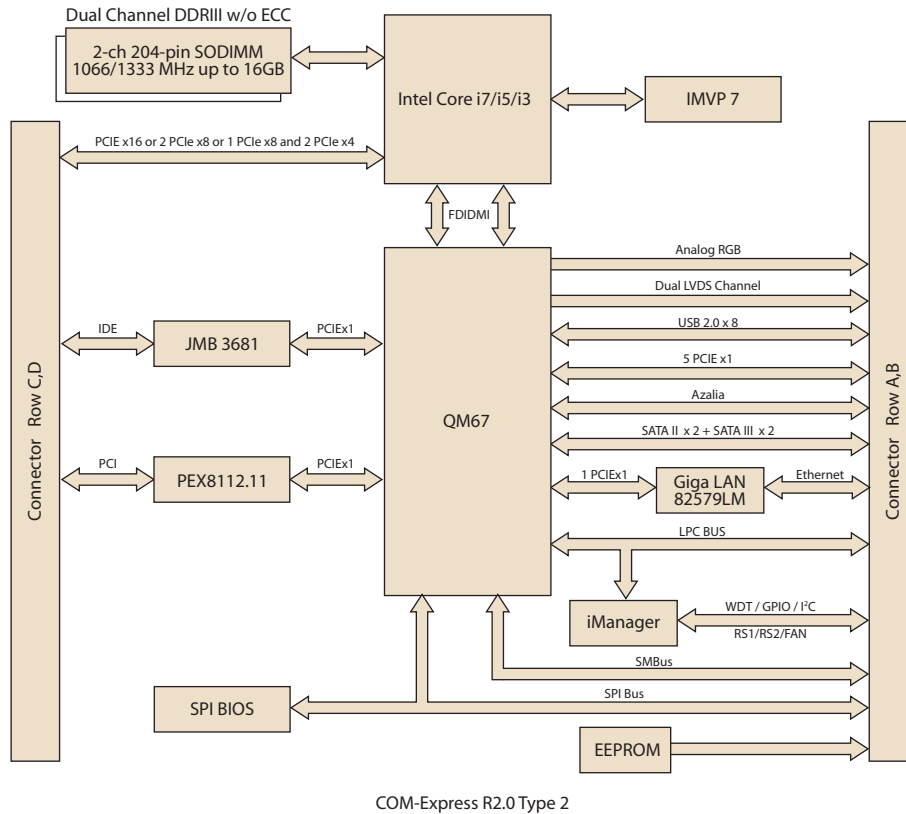


iManager susiAccess CE FCC

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 | | |
| | Technology | DDR3 1066/1333 MHz | | |
| Memory | 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



COM-Express R2.0 Type 2

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 |