



Features

- Intel® Quad or Dual Core™ i7/i5/i3 Processor
- Intel® QM67 Chipset
- Up to 16GB Dual Channel DDR3 SDRAM at 1333MHz
- Three Digital Display Interfaces (DDI) for DisplayPort /HDMI/DVI/SDVO
- Seven PCIe x1, one PCIe x16 (Gen2) for graphics (or general purpose x8/4/1)
- Two SATA 3 Gb/s, two SATA 6 Gb/s, Gigabit Ethernet, eight USB 2.0

Specifications

Core System

| | |
|------------------|---|
| CPU | 2nd Generation Intel® Core™ i7/i5/i3, 32 nm process, BGA type Intel® Core™ i7-2715QE 2.1 GHz (3.0 GHz Turbo), 6MB L3 cache, 45W (4C) Intel® Core i7-2655LE 2.2 GHz (2.9 GHz Turbo), 4MB L3 cache, 25W (2C) Intel® Core™ i7-2610UE 1.5 GHz (2.4 GHz Turbo), 4MB L3 cache, 17W (2C) Intel® Core™ i5-2515E 2.5 GHz (3.2 GHz Turbo), 3MB L3 cache, 35W (2C) Intel® Core™ i3-2310E 2.1 GHz, 3MB L3 Cache, 35W (2C) Intel® Core™ i3-2340UE 1.3 GHz, 3MB L3 Cache, 17W (2C) Intel® Celeron® B810E 1.6 GHz, 2MB L3 Cache, 35W (2C) Intel® Celeron® 847E 1.1 GHz, 2MB L3 Cache, 17W (2C) |
| Memory | Dual channel non-ECC 1066/1333 MHz DDR3 memory up to 16 GB in dual SODIMM socket |
| Chipset | Intel® Mobile QM67 Express Chipset |
| L3 Cache | 6MB (i7-2715QE), 4MB(i7-2655LE and i7-2610UE), 3MB (i5-2515E) |
| BIOS | AMI EFI with CMOS backup in 16 Mbit SPI flash with iAMT |
| Hardware Monitor | Supply voltages and CPU temperature |
| Debug Interface | XDP SFF-26 extension for ICE debug |
| Watchdog Timer | Programmable timer range to generate RESET |
| Expansion Busses | PCI Express x16 (Gen2) bus for discrete graphics solution or general purpose PCI Express (2 x8 or 1 x8 with 2 x4) 8 PCI Express x1: Lanes 0/1/2/3/4/5/6 are free, lane 7 is occupied by GbE LPC bus, SMBus (system) , I ² C (user) |

Video

| | |
|---------------------------|---|
| Integrated in Processor | HD Graphics 3000 at 650–1300 MHz |
| Integrated Video | DirectX 10.1 and OpenGL 3.0 |
| Feature Support | Intel Clear Video HD Technology Advanced Scheduler 2.0, 1.0, XPDM support DirectX Video Acceleration (DXVA) support for full AVC/VC1/ MPEG2 hardware decode |
| VGA Interface | Analog VGA support with 300 MHz DAC Analog monitor support up to QXGA (2048 x 1536) and VGA hot plug |
| LVDS Interface | Dual channel 18/24-bit LVDS |
| Digital Display Interface | Three DDI ports supporting HDMI / DVT / DisplayPort or SDVO |

Audio

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|-------------|-----------------------------------|
| Chipset | Integrated on Intel® PCH QM67 |
| Audio Codec | On Express-BASE6 carrier (ALC886) |

Ethernet

| | |
|-----------|---------------------------------------|
| Chipset | Intel® Gigabit Ethernet PHY WG82579LM |
| Interface | 10/100/1000 Mbps Ethernet |

Multi I/O and Storage

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|---------|--|
| Chipset | Integrated on QM67 |
| USB | Supports up to eight ports USB 2.0 |
| SATA | Supports two SATA ports at 6 Gb/s and two ports at 3 Gb/s with support for RAID 0,1,5,10 |

Super I/O

Connected to LPC bus on carrier if needed

TPM (optional)

| | |
|---------|-----------------------|
| Chipset | Infineon SLB9635TT1.2 |
| Type | TPM 1.2 |

Power

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|------------------------|--|
| Standard Voltage Input | ATX = 12V±5% / 5Vsb or AT = 12V±5% |
| Wide Voltage Input | ATX = 8.5~18V / 5Vsb or AT = 8.5 ~18V |
| Power States | Supports S0, S1, S3, S4, S5 |
| Power Consumption | 22 W with Core™ i7-2610UE at 1.5 GHz and 2 GB memory typical |
| Smart Battery Support | Yes |

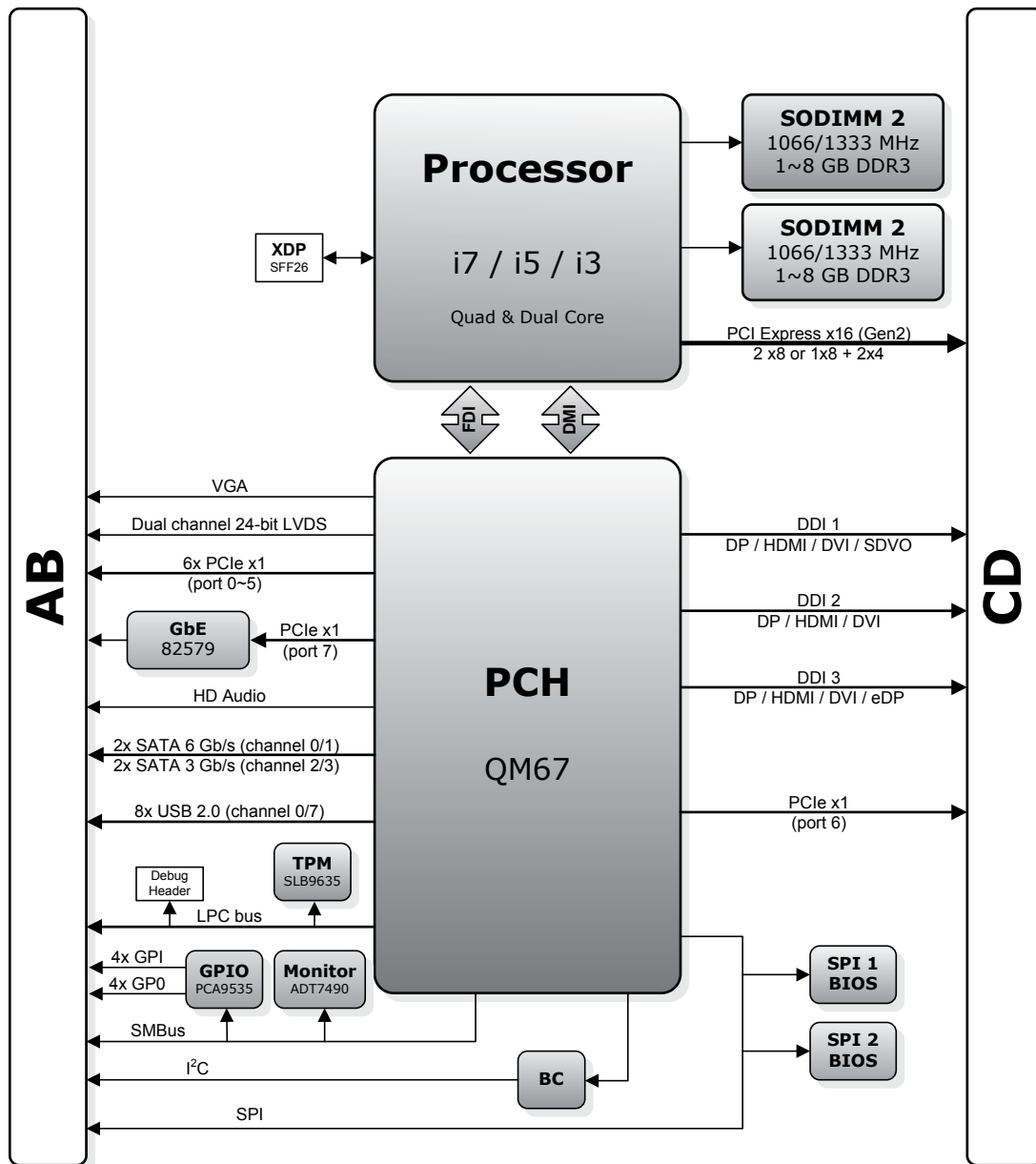
Mechanical and Environmental

| | |
|-----------------------|---|
| Operating Temperature | Standard: 0°C to 60°C |
| Storage Temperature | -20°C to 80°C |
| Humidity | 90% at 60°C |
| Shock | 15G peak-to-peak, 11ms duration, non-operating |
| Vibration | Non-operating: 1.88Grms, 5-500Hz, each axis Operating: 0.5Grms, 5-500Hz, each axis |
| Compatibility | COM Express Type 6, Basic form factor 125mm x 95mm |
| Certification | CE, FCC, HALT |

Operating Systems

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|------------------------|---|
| Standard Support | Windows XP(e) / Windows 7 Linux |
| Extended Support (BSP) | Embedded XP support package Linux 2.6.x BSP VxWorks 6.x AIDI Library for Windows and Linux |

Functional Diagram



Ordering Information

Modules

| Model Number | Description/Configuration |
|----------------------|---|
| Express-HR-i7-2715QE | COM Express® Type 6 module with 4C Intel® Core i7-2715QE SV processor at 2.1GHz with QM67 chipset |
| Express-HR-i7-2655LE | COM Express® Type 6 module with 2C Intel® Core i7-2655LE LV processor at 2.2GHz with QM67 chipset |
| Express-HR-i7-2610UE | COM Express® Type 6 module with 2C Intel® Core i7-2610UE ULV processor at 1.5 GHz with QM67 Chipset |
| Express-HR-i5-2515E | COM Express® Type 6 module with 2C Intel® Core i5-2515E SV processor at 2.5 GHz with QM67 Chipset |
| Express-HR-i3-2310E | COM Express® Type 6 module with 2C Intel® Core i3-2310E SV processor at 2.1 GHz with QM67 Chipset |
| Express-HR-i3-2340UE | COM Express® Type 6 module with 2C Intel® Core i3-2340UE ULV processor at 1.3 GHz with QM67 Chipset |
| Express-HR-B810E | COM Express® Type 6 module with 2C Intel® Celeron® B810E SV processor at 1.6 GHz with QM67 Chipset |
| Express-HR-B-847E | COM Express® Type 6 module with 2C Intel® Celeron® B847E ULV processor at 1.1 GHz with QM67 Chipset |

Note: All specifications are subject to change without further notice.

Accessories

| Model Number | Description/Configuration |
|-------------------------------------|---|
| Passive Heatsinks | |
| THSH-HR-BL | High Profile Heatsink for Express-HR with threaded standoffs |
| Heat Spreaders | |
| HTS-HR-B | Heatspreader for Express-HR with threaded standoffs |
| Heatsink with Active Cooling | |
| THSF-HR-BL | High Performance Heatsink with Fan for Express-HR with threaded standoffs |
| THSF-HR-BL-QC | High Performance Heatsink with Fan for Express-HR Quad-Core CPU with threaded standoffs |



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- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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