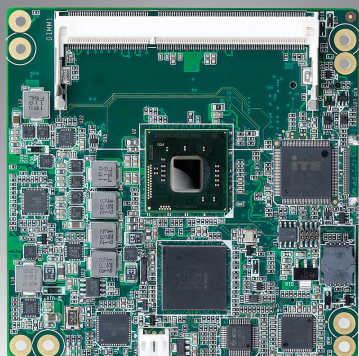


SOM-6765

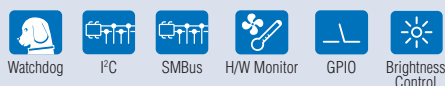
Intel® Atom™ Processor N2600/N2800/D2550 COM Express® Compact Module



Features

- Embedded Intel® Atom™ Processor N2600/N2800/D2550 + NM10
- Intel® Gfx support DX9 and OpenGL 3.0
- Supports VGA, 18/24 bit LVDS
- Supports DDR3 memory up to 1066 4GB
- Supports 2 PCIe x1, 4 PCI Master, LPC, SMBus, I2C Bus, 2 SATAII, EIDE, 8 USB2.0, GbE
- Supports iManager, SUSIAccess and Embedded Software APIs

Software APIs:

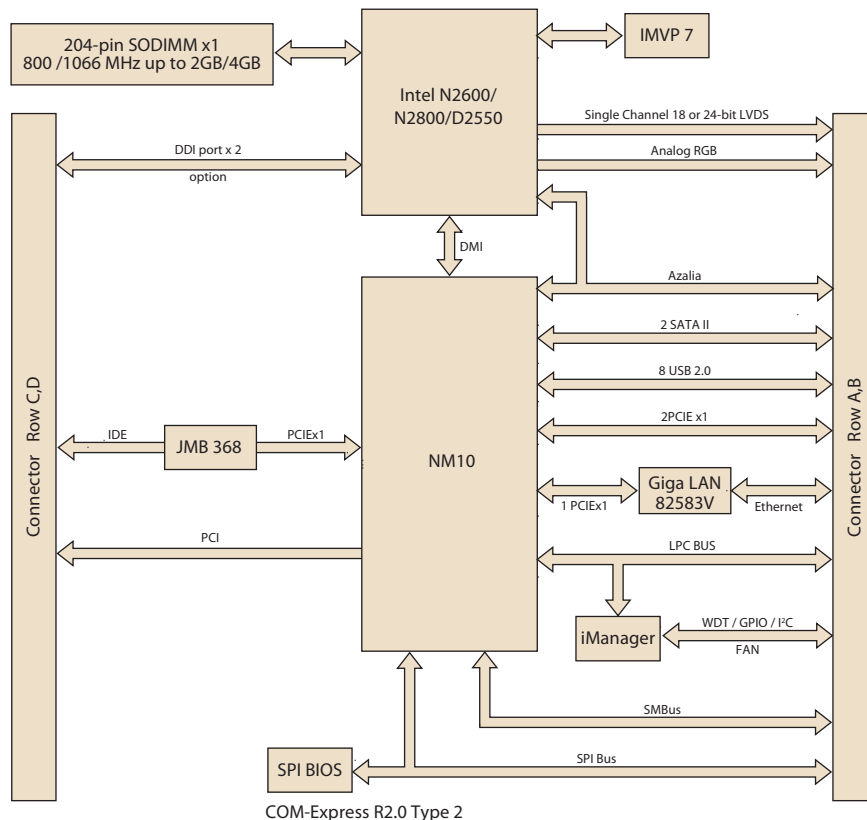


iManager susiAccess CE FCC

Specifications

| | | | | |
|------------------|--|--|---|--|
| Form Factor | COM Express R2.0 Compact Module, Type 2 Pin-out. | | | |
| Processor System | CPU | Intel Atom Processor N2600 1.6 GHz, 2 x 512 KB L2 Cache Intel Atom Processor N2800 1.86GHz, 2 x 512 KB L2 Cache Intel Atom Processor D2550 1.86GHz, 2 x 512KB L2 Cache | | |
| | System Chipset | NM10 | | |
| | BIOS | AMI EFI 16Mb | | |
| Memory | Technology | Support DDR3 1066 MHz for N2800/D2550, DDR3 800 MHz for N2600 | | |
| | Max. Capacity | Up to 4 GB for N2800/D2550, up to 2 GB for N2600 | | |
| | Socket | 1 x 204-pin SODIMM Socket | | |
| Display | Chipset | Intel Gfx integrated in Atom Processor | | |
| | Graphic Engine | Intel Gfx 640 MHz for N2800/D2550: 400 MHz for N2600, supports DX9, OpenGL 3.0, MPEG2/VC1/H.264 HW Decoder | | |
| | LVDS | 18-bit up to 1366x768 for N2600/N2800 and 24-bit up to 1440 x 900 for D2550 | | |
| | VGA | 1920 x 1200 | | |
| | DDI | 2 ports shared with HDMI/DVI/DisplayPort (Option) | | |
| | TV Out | - | | |
| | SDVO | - | | |
| Ethernet | Dual Display | CRT + LVDS, CRT + DDI (Option) LVDS + DDI (Option) | | |
| | Chipset | Intel 82583 Gigabit Ethernet | | |
| WatchDog Timer | Speed | 10/100/1000 Mbps | | |
| | WatchDog Timer | 65536 level timer interval, from 0-65535 sec, multi-level, multi-option watchdog timer | | |
| Expansion | 2 PCIe x1 (Option for 4 PCIe x1), 4 PCI masters, LPC, SMBus, I2C Bus | | | |
| I/O | PATA | 1 EIDE (UDMA 100) | | |
| | SATA | 2 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 | | |
| | Power Consumption (Typical) | 6765N2600 (2G DDRIII 800) 7.06W @ Vin=12V | 6765D2550 (4G DDRII 1066) 8.1W @ Vin=12V | 6765N2800 (4G DDRIII 1066) 6.9W @ Vin=12V |
| | Power Consumption (Max, test in Burn In Test) | 6765N2600 (2G DDRIII 800) 9.08W @ Vin=12V | 6765D2550 (4G DDRIII 1066) 10.3W @ Vin=12V | 6765N2800 (4G DDRIII 1066) 9.4W @ Vin=12V |
| Environment | Temperature | Operating: 0 ~ 60° C (32 ~ 140° F) Storage: -40 ~ 85° C (-40 ~ 185° F) | | |
| | Humidity | Operating: 40° C @ 95% relative humidity, non-condensing storage: 60° C @ 95% relative humidity, non-condensing | | |
| Mechanical | Dimensions | 95 x 95 mm (3.74" x 3.74") | | |

Block Diagram



COM-Express R2.0 Type 2

Ordering Information

| Part No. | CPU | L2 Cache | Chipset | LVDS | VGA | HDMI/DVI/DisplayPort (Option) | Giga LAN | HD Audio | PCIe x1 | PCI | USB 2.0 | SATA II | LPC | SMBus | I ² C Bus | ATX Power | AT Power | Thermal Solution | Operating Temp. |
|-------------------|------------|----------|---------|--------|-----|-------------------------------|----------|----------|---------|-----|---------|---------|-----|-------|----------------------|-----------|----------|------------------|-----------------|
| SOM-6765N-S6A1E | Atom N2600 | 1 MB | NM10 | 18-bit | Yes | 2 | 1 | Yes | 2 | 4 | 8 | 2 | 1 | 1 | 1 | Yes | Yes | Passive | 0 ~ 60° C |
| SOM-6765NZ-S6A1E | Atom N2600 | 1 MB | NM10 | 18-bit | Yes | 2 | 1 | Yes | 2 | 4 | 8 | 2 | 1 | 1 | 1 | Yes | Yes | Passive | -20 ~ 80° C |
| SOM-6765NZ2-S6A1E | Atom N2600 | 1 MB | NM10 | 18-bit | Yes | 2 | 1 | Yes | 2 | 4 | 8 | 2 | 1 | 1 | 1 | Yes | Yes | Passive | -40 ~ 85° C |
| SOM-6765N-S8A1E | Atom N2800 | 1 MB | NM10 | 18-bit | Yes | 2 | 1 | Yes | 2 | 4 | 8 | 2 | 1 | 1 | 1 | Yes | Yes | Passive | 0 ~ 60° C |
| SOM-6765NZ-S8A1E | Atom N2800 | 1 MB | NM10 | 18-bit | Yes | 2 | 1 | Yes | 2 | 4 | 8 | 2 | 1 | 1 | 1 | Yes | Yes | Passive | -20 ~ 80° C |
| SOM-6765NZ2-S8A1E | Atom N2800 | 1 MB | NM10 | 18-bit | Yes | 2 | 1 | Yes | 2 | 4 | 8 | 2 | 1 | 1 | 1 | Yes | Yes | Passive | -40 ~ 85° C |
| SOM-6765D-S8A1E | Atom D2550 | 1 MB | NM10 | 24-bit | Yes | 2 | 1 | Yes | 2 | 4 | 8 | 2 | 1 | 1 | 1 | Yes | Yes | Active | 0 ~ 60° C |
| SOM-6765DZ-S8A1E | Atom D2550 | 1 MB | NM10 | 24-bit | Yes | 2 | 1 | Yes | 2 | 4 | 8 | 2 | 1 | 1 | 1 | Yes | Yes | Active | -20 ~ 80° C |
| SOM-6765DZ2-S8A1E | Atom D2550 | 1 MB | NM10 | 24-bit | Yes | 2 | 1 | Yes | 2 | 4 | 8 | 2 | 1 | 1 | 1 | Yes | Yes | Active | -40 ~ 85° C |

Note: Passive = fanless; Active = with fan

Development Board

| Part No. | Description |
|------------------|---|
| SOM-DB5720-00A1E | Development Board for COM Express Type2 |

Optional Accessories

| Part No. | Description |
|----------------|--|
| 1960048815N001 | Semi-Heatsink 95 x 95 x 17 mm |
| 1960048819N001 | Semi-Cooler 95 x 95 x 33.5 mm with 12V fan |

Packing List

| Part No. | Description | Quantity |
|----------------|---------------------|----------|
| - | SOM-6765 CPU Module | 1 |
| 1960053504N001 | Heatspreader | 1 |