

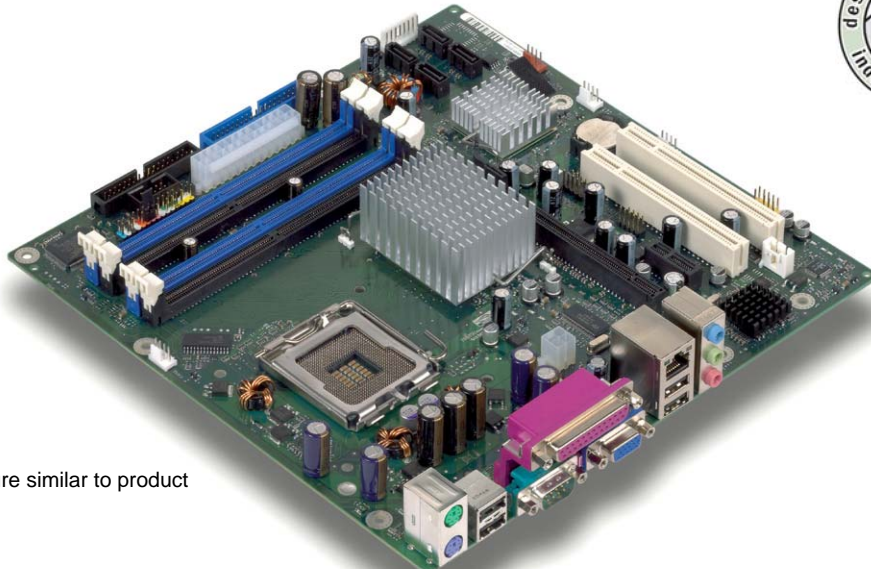
## Premium Mainboard D2151-S2 Industrial Version (Core™2 Duo Support)

Issue November 2006

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Intel® 945G Express Chipset for DDR2 667 SDRAM Memory and  
Intel® Core™2 Duo / Pentium® D / Pentium® 4 / Celeron® D Processors (up to 1066 MHz FSB)

Enhanced operating temperature range from 0°C to 60°C



Picture similar to product



### Chipset:

Intel® 945G

### Processors:

Intel® Core™2 Duo Processors  
LGA775 with 800/1066 MHz FSB

Intel® Pentium® D Processors  
LGA775 with 533 / 800 MHz FSB

Intel® Pentium® 4 Processors,  
LGA775 with 533/800 MHz FSB

Intel® Celeron® D Processors,  
LGA775 with 533 MHz FSB

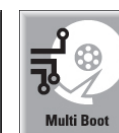
Support for Hyper-Threading Technology  
Compatible with Intel® 06 and 05A processors

### Memory:

DDR2 667 SDRAM  
DDR2 533 SDRAM  
DDR2 400 SDRAM

### Product Features:

Graphics on board  
HD Audio on board  
USB 2.0 on board  
Gbit LAN on board  
Serial ATA II RAID on board



|                   |                                      |
|-------------------|--------------------------------------|
| <b>Board Size</b> | µATX: 9.6" x 9.6" (243.8 x 243.8 mm) |
| <b>Chipset</b>    | Intel® 945G                          |

**Memory**  
 4 DIMM Sockets (1,8V), 256 MB - 4 GB <sup>2)</sup>, Single or Dual Channel, DDR2 667/533/400 SDRAM, unbuffered, no ECC  
 (For details on recommended RAM, please refer to our website)

**Processors**  
 Intel® Core™2 Duo Processors LGA775 with 800/1066 MHz FSB  
 Intel® Pentium® D Processors LGA775 with 533 / 800 MHz FSB  
 Intel® Pentium® 4 Processors LGA775 with 533/800 MHz FSB  
 Intel® Celeron® D Processors LGA775 with 533 MHz FSB  
 Support for Hyper-Threading Technology  
 Compatible with Intel® 06 (max. 65W) and 05A (max. 95W) processors  
 (For details on processors supported, please refer to our website)

**Power Specification**  
 BTX12V (24 Pin) or ATX12V (20 Pin) Power Supply required  
 5V and 3.3V Supply Voltage on PCI Slots (PCI Rev. 2.3)  
 3.3 V Auxiliary Supply Voltage on PCI Slots (Wake-Up Function)  
 5V / 2A Auxiliary Power required for USB Wake-Up from Save-to-RAM, Save-to-Disk

**Power Supply Requirements**  
 for onboard components (worst case)

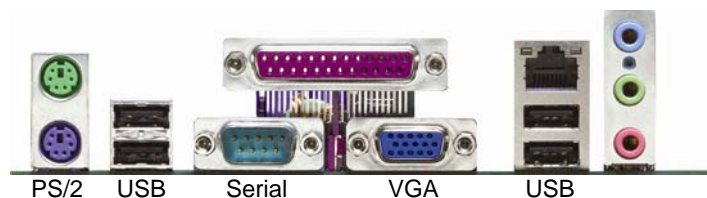
| Source            | Voltage | Maximal variation | Mainboard current (Maximal) |
|-------------------|---------|-------------------|-----------------------------|
| Main Power Supply | + 12 V  | 5 %               | 17.0 A                      |
|                   | - 12 V  | 10 %              | 0.05 A                      |
|                   | + 5 V   | 5 %               | 6 A                         |
|                   | + 3.3 V | 5 %               | 4 A                         |
| Aux. Power Supply | + 5 V   | 5 %               | 2 A                         |

**BIOS**  
 Phoenix cME FirstBIOS Desktop Pro Version V5.00 modified and adapted by Fujitsu Siemens Computers

**Special Features**  
 Silent Fan Independent temperature related processor and fan supervision and control  
 System Guard View and adjust Silent Fan  
 Silent Drives Noise reduction for optical and hard disk drives  
 Safe Standby Prevents data loss in S3 (save-to-RAM)  
 Recovery BIOS Restores a corrupted BIOS  
 Desk Update Simple driver update with DU CD  
 Multi Boot Comfortable boot from any boot device  
 HDD Password Access protection for ATA5/ATAPI5 disk drives

**Designed for industrial applications**  
 Longlife capacitors Designed for 24/7 use in industrial applications  
 Tin-plated PCB Improved durability of PCB surface  
 Revision control Less hardware changes and outstanding information management  
 Extended lifetime Mainboard available for more than three years  
 Additional Documentation & Support  
 RoHS-compliant  
 Enhanced operating temperature range (0°C-60°C) <sup>1)</sup>

**External Connectors**  
 PS/2 Mouse Parallel LAN Audio



**Keyboard**  
 1) forced cooling required  
 2) 4GB address space thereof max. 3.0GB usable for physical main memory

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**Graphics**  
 Intel® GMA950 Graphics Controller, shared memory (up to 224MB), DirectX 9 compliant, 333 MHz core frequency, 256-bit 2-D and 32-bit 3-D engine, Motion video acceleration, up to 2048 x 1536 at 75 Hz refresh, integrated 24-bit 400 MHz RAMDAC, upgradeable with PCI Express x16 Graphics Card or ADD2 Cards to add support for digital displays or TV Out

**Audio**  
 Realtek ALC260/262 (HD Audio), 2 channel

**LAN**  
 Broadcom BCM5751 controller with 10/100/1000 Mbit/s via PCI Express, Alert Standard Format (ASF), Wake-on-LAN (WoL) by interesting Packets, Link Status Change and Magic Packet™, bootit® PXE Support

**IDE**  
 1 ATA 100 Interface, up to 2 Drives,  
 4 Serial ATA II 300 Interfaces (up to 3Gbit, NCQ), up to 4 Drives, RAID 0, 1, 0+1, 5

| Versions                                | D2151-S           |
|---|-------------------|
| <b>Features</b>                         |                   |
| Chipset                                 | Intel® 945G       |
| Board Size                              | µATX              |
| VGA                                     | ✓                 |
| Audio / 6-channel / S/PDIF              | ✓ / - / -         |
| Buzzer / int. Speaker Support           | - / ✓             |
| LAN Gbit / 100 Mbit / 10 Mbit           | ✓ / ✓ / ✓         |
| LAN ASF / AoL / WoL / Boot              | ✓ / - / ✓ / ✓     |
| SATA / ATA / RAID                       | ✓ / ✓ / ✓         |
| FireWire™ / USB 2.0                     | - / ✓             |
| FAN monitored PSU**/CPU/AUX1/AUX2/AUX3  | ✓ / ✓ / ✓ / ✓ / ✓ |
| FAN controlled PSU**/CPU/AUX1/AUX2/AUX3 | ✓ / ✓ / ✓ / ✓ / ✓ |
| TEMP monitored CPU/ONB1/ONB2/HDD        | ✓ / ✓ / ✓ / ✓ / ✓ |

**Special Features**

|   |               |
|---|---------------|
| Silent Fan / Silent Fan LT                        | ✓ / -         |
| System Guard / Silent Drives                      | ✓ / ✓         |
| Recovery BIOS/Desk Update/Multi Boot/Safe Standby | ✓ / ✓ / ✓ / ✓ |
| HDD Password                                      | ✓             |
| Logo Boot / Intel On Screen Branding              | ✓ / ✓         |

**Internal Connectors**

|   |                   |
|---|-------------------|
| DIMM Sockets (DDR2 667 SDRAM)                         | 4                 |
| PCI Express x16                                       | 1                 |
| PCI Slots (32Bit, 33 MHz, 5 V and 3.3 V) PCI Rev. 2.3 | 2                 |
| PCI Express x1  | 1                 |
| SATA (300) / ATA (100) / Floppy                       | 4 / 1 / 1         |
| S/PDIF * (5.1 digital Audio) OUT / IN                 | - / -             |
| Audio Input   | 1                 |
| Frontpanel Audio (9 Pin, Azalia Pinning)              | 1                 |
| FireWire™ * (9-Pin, Intel standard header)            | -                 |
| USB * (2.0, ~480 MB/s)                                | 4                 |
| Serial * (FIFO, 16550 compatible)                     | 1                 |
| FAN PSU**/CPU/AUX1/AUX2/AUX3                          | 1 / 1 / 1 / 1 / 1 |
| SMBus * (Case Temperature)                            | -                 |
| Intrusion (Case Open)                                 | -                 |
| Power BTX(ATX supported) / ATX12V / AGP Pro           | 1 / 1 / -         |

**External Connectors**

|  |           |
|--|-----------|
| VGA  | 1         |
| Audio Mic. In / Line in / Line out         | 1 / 1 / 1 |
| S/PDIF (5.1 digital Audio, cinch) OUT / IN | - / -     |
| LAN (RJ-45)                                | 1         |
| PS/2 Mouse / Keyboard                      | 1 / 1     |
| FireWire™ (6-Pin, IEEE 1394)               | -         |
| USB (2.0, ~480MB/s)                        | 4         |
| Serial (RS232, FIFO, 16550 compatible)     | 1         |
| Parallel (EPP/ECP)                         | 1         |

\* for use with internal devices or optional Front- or Rearpanel  
 \*\* not supported by standard Power Supplies

