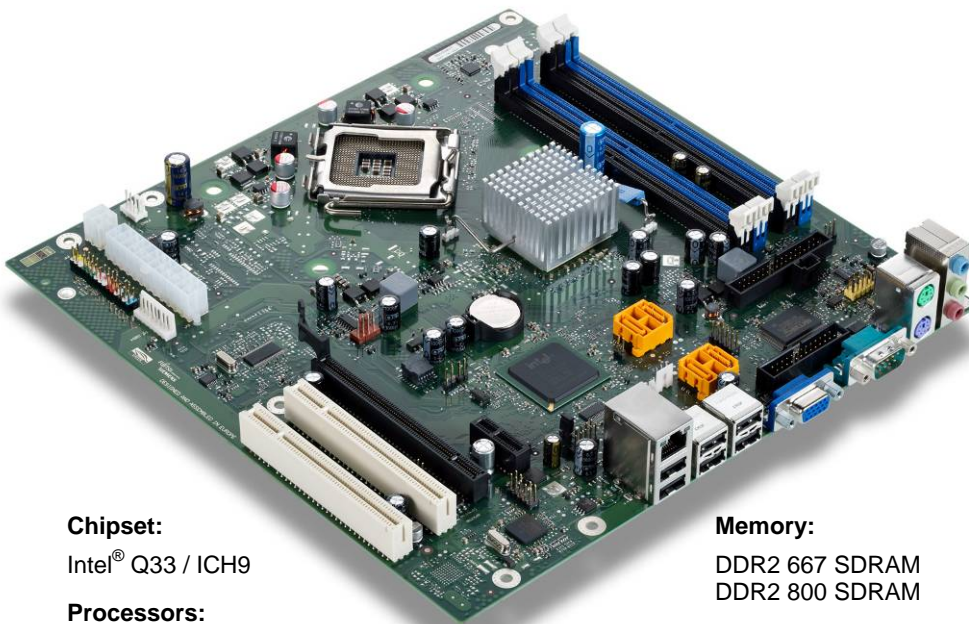


## Value Mainboard D2581-A µBTX

Issue October 2008

Pages 2

Intel® Q33 Chipset for DDR2 800 SDRAM Memory and  
Intel® Core™2 Duo Processors and Core™2 Quad Processors (up to 1333 MHz FSB)



### Chipset:

Intel® Q33 / ICH9

### Processors:

Intel® Core™ 2 Quad Processors,  
LGA775 with 1333/1066 MHz FSB

Intel® Core™ 2 DUO Processors,  
LGA775 with 1333/1066/800 MHz FSB

Intel® Pentium® Dual Core E2xxx Processors,  
LGA775 with 800 MHz FSB

Intel® Celeron® Dual Core E1xxx Processors,  
LGA775 with 800 MHz FSB

Intel® Celeron® 4xx Processors,  
LGA775 with 800 MHz FSB

Compatible with Intel® 06 and 05A processors

### Memory:

DDR2 667 SDRAM  
DDR2 800 SDRAM

### Product Features:

Graphics on board  
Audio on board  
USB 2.0 on board  
Broadcom GbE LAN on board  
Serial ATA II on board  
Trusted Platform Modul V1.2 onboard



<b>Board Size</b>	µBTX: 10,5" x 9,95" (266.7 x 264.2 mm)
<b>Chipset</b>	Intel® Q33 / ICH9

**Memory**  
 4 DIMM Sockets (1.8V), 256MB - 8GB, Single Channel or Dual Channel DDR2 800/667SDRAM, unbuffered, no ECC (For details on recommended RAM, please refer to our website)

**Processors**  
 Intel® Core™ 2 Quad Processors, 1333/1066 MHz FSB, Intel® Core™ 2 Duo Processors, 1333/1066/800 MHz FSB, Intel® Pentium® Dual Core E2xxx Processors, 800 MHz FSB, Intel® Celeron® Dual Core E1xxx Processors, 800 MHz FSB Intel® Celeron® 4xx Processors, 800 MHz FSB  
 Compatible with Intel® 06 and 05A processors, max. 95W (LGA775) (For details on supported processors please refer to our website)

**Power Specification**  
 BTX12V (24 Pin) or ATX12V (20 Pin) Power Supply required  
 Support for Soft-Off Power Supplies  
 5V and 3.3V Supply Voltage on PCI Slots (PCI Rev. 2.3)  
 3.3V Auxiliary Supply Voltage on PCI Slots (Wake-Up Function)  
 On board CPU Voltage Regulator, 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	PS Load (min. ) <sup>1</sup>	Voltage Tolerance (max)	Mainboard Current (max.)
	+ 12 V	0.3 A	± 5 %	7 A
Main Power Supply	- 12 V	0 A	± 10 %	0.05 A
	+ 5 V	0.6A	± 5 %	8 A
	+ 3.3 V	0A	± 5 %	0.5 A
Aux. Power Supply	+ 5 V	0 A	± 5 %	2 A

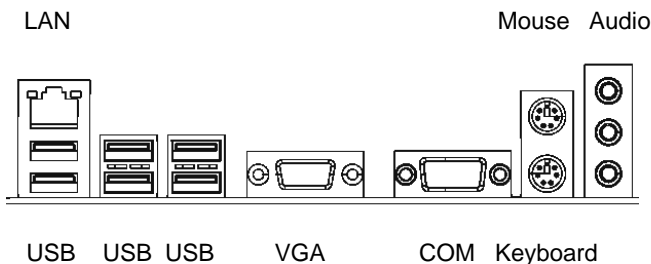
1) PS must support these load conditions if low power processors (e.g. Celeron 4xx) are used.

**BIOS**  
 Phoenix Trusted Core BIOS Version 6.00 modified and adapted by Fujitsu Siemens Computers; Recovery BIOS, SM-BIOS (DMI), BIOS and CPU Microcode Update via disk (stable user settings), Quick Boot, Logo Boot, Quiet Boot, Plug & Play, Automatic DRAM and PCI Configuration, BIOS Support for S.M.A.R.T., Advanced Power Management, ACPI S3 (Save-to-RAM), ACPI S4 (Save-to-Disk), Wake on time from S5

**Security Features**  
 Recovery BIOS, System and BIOS Password, Boot and/or Write Protection for Floppy Disk Drive, Boot Sequence Control for each Floppy and IDE Drive, Serial Port Access Protection, Boot Sector Virus Warning, Write Protection for Flash BIOS. Trusted Platform Module (TPM) V1.2 (Infineon)

**Special Features**  
 Silent Fan LT Independent temperature related processor fan and system fan control  
 System Guard View and adjust Silent Fan LT  
 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 DVD  
 Multi Boot Comfortable boot from any boot device  
 HDD Password Access protection for up to two disk drives

**External Connectors**



**Graphics**  
 Intel® GMA3100 Graphics Controller, shared memory (up to 256MB), DirectX 9 compliant, upgradeable with PCI Express x16 Graphics Card or ADD2 cards

**Audio**  
 Realtek ALC262, 2-channel, High Definition Audio

**LAN**  
 Broadcom Ethernet Controller with 10/100/1000 MBit/s via PCI Express, Wake-on-LAN (WoL) by interesting Packets, Link Status Change and Magic Packet™, bootix® PXE Support, BIOS MAC Address Display

**Drives**  
 - 4 Serial ATA II 300 Interfaces (up to 3GBit/s, NCQ)  
 - Floppy

**Version** D2581-A

Features	
Chipset	Intel Q33 / ICH9
Board Size	µBTX
VGA	✓
Stereo Audio / Multichannel Audio	✓ / -
Buzzer / int. Speaker Support	- / ✓
LAN Gbit / 100 Mbit / 10 Mbit	✓ / ✓ / ✓
LAN ASF / AoL / WoL / Boot / iAMT	✓ / - / ✓ / ✓ / ✓ / -
SATA / ATA / RAID / eSATA-support <sup>1)</sup>	✓ / - / - / ✓
FireWire™ / USB 2.0	- / ✓
FAN monitored PSU <sup>3)</sup> / CPU / AUX1 / AUX2	- / - / - / -
FAN controlled PSU <sup>3)</sup> / CPU / AUX1 / AUX2	✓ / ✓ / ✓ / ✓ / -
TEMP monitored CPU / ONB1 / ONB2 / OFFB	✓ / ✓ / ✓ / ✓ / -

Special Features	
Silent Fan / Silent Fan LT / System Guard / Silent Drives	- / ✓ / ✓ / ✓ / ✓
Recovery BIOS / Desk Update / Multi Boot	✓ / ✓ / ✓
HDD Password	✓
Logo Boot Option / Intel On Screen Branding	✓ / ✓

Internal Connectors	
DIMM Sockets (DDR2 800)	4
PCI Express x16 Slot for Graphics Card	1
PCI Express x1 Slot	1
PCI Slots (32Bit, 33 MHz, Rev. 2.3)	2
SATA (300) / ATA (100) / Floppy	4 / 0 / 1
S/PDIF (digital Audio) OUT / IN	1 / -
Audio Input	-
Frontpanel Audio (9-Pin) AC'97 / Azalia	- / 1
FireWire™ (9-Pin, Intel standard header)	-
USB (2.0, ~480 MB/s, 2 channels per connector)	3
Serial (FIFO, 16550 compatible)	-
FAN PSU <sup>3)</sup> / CPU / AUX1 / AUX2	1 / 1 / 1 / -
SMBus (Case Temperature)	-
Intrusion (Case Open)	1
Parallel (EPP/ECP) Pin Connector <sup>2)</sup>	1
Power 24 pin (BTX) / 4 pin (12V processor supply)	1 / 1

External Connectors	
VGA Sub D / DVI	1 / -
Audio Mic. In / Line in / Line out (or driver configuration)	1 / 1 / 1
Audio Surround / RearSurround / CenterLFE	- / - / -
S/PDIF (digital Audio, cinch) OUT / IN	- / -
S/PDIF (digital Audio, optical) OUT	-
LAN (RJ-45)	1
PS/2 Mouse / Keyboard	1 / 1
FireWire™ (6-Pin, IEEE 1394)	-
USB (2.0, ~480MB/s)	6
Serial (RS232, FIFO, 16550 compatible)	1
Parallel (EPP/ECP) <sup>2)</sup>	-

1) No Hot Plug support  
 2) External parallel port possible via optional connector cable  
 3) Not supported by standard Power Supplies