

Data Sheet

FUJITSU Mainboard D3221-B µATX

Classic Desktop Series

Powered by the Intel® Q85 Express Chipset supporting DDR3 1600 SDRAM Memory and 4th generation Intel® Core™ i3 / i5 / i7 Processors (Socket LGA1150)

Designed for 24/7 continuous operation

Chipset:

Intel® Q85 Express Chipset

Processors:

Intel® Core™ i7 / i5 / i3 – 4xxx processor series

Intel® "TE" Haswell-based embedded series

Intel® Pentium® – G3xxx processor series

Intel® Celeron® – G18xx processor series

Ready for "Haswell Refresh" processor series

Memory:

DDR3 1333/1600 SDRAM

Product Features:

Intel® iAMT (Standard Manageability)

Intel® HD Graphics (e.g. HD4600)

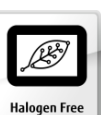
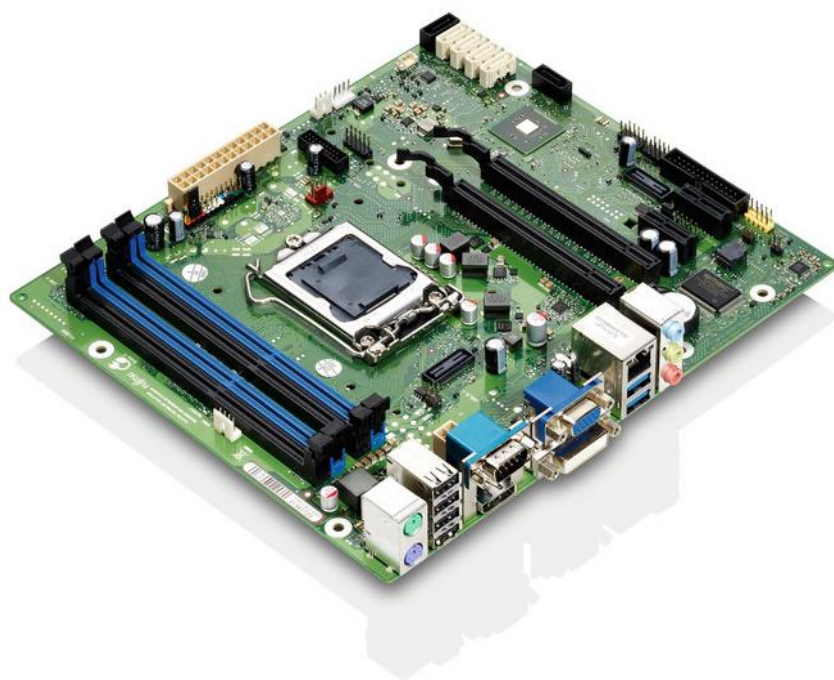
PCI Express Gen3

Multichannel Audio & Intel GbE LAN onboard

USB 2.0 and USB 3.0 onboard

Trusted Platform Modul V1.2 (Infineon) onboard

Second Display Port optional via specific PCIe card



Features and benefits

Board Size reduced µATX: 9.6" x 8.4" (243.8 x 213.4 mm)

Chipset Intel® Q85 Express Chipset

Memory

4 DIMM Sockets (1.5V), 1GB - 32GB, Single Channel / Dual Channel DDR3-1333 (CL9) and DDR3-1600 (CL11) SDRAM, unbuffered, no ECC

Processor

Intel® Core™ i7 / i5 / i3 - 4xxx processor series
Intel® "TE" Haswell-based embedded processor series
Intel® Pentium® - G3xxx processor series
Intel® Celeron® - G18xx processor series
Socket LGA1150, max. 95W TDP
(For details on supported processors please refer to our website)

Power Specification

ATX- 24 Pin or ATX- 20 Pin Power Supply required
Support for Soft-Off Power Supplies
3.3V Auxiliary Supply Voltage on PCIe Slots (Wake-Up Function)
On board CPU Core Voltage Regulator

Power Supply Requirements

for onboard components (worst case incl. processor, memory, USB devices; w/o PCIe cards, w/o SATA drives)

Source	Voltage	Min. PS Load	Max. Voltage Tolerance	Mainboard Capacitive Load	Max. Mainboard Current
Main Power Supply	+ 12V	0.05A	± 5 %	10.000µF	14A/18A ¹⁾
	- 12V	0A	± 10 %	500µF	0.3A
	+ 5V	0.2A	± 5 %	10.000µF	10A
	+ 3.3V	0A	± 5 %	6.000µF	2A
Aux. Power	+ 5Vaux	0A	+5 % / -3%	7.000µF	2.5A

1) 18A = Surge Current for 20 sec!

BIOS

AMI Aptio 4.x (UEFI) BIOS
modified and adapted by Fujitsu Technology Solutions; Recovery BIOS, SM-BIOS (DMI), BIOS and CPU Microcode Update, Quick Boot, Logo Boot, Quiet Boot, Plug & Play, Automatic DRAM and PCIe Configuration, BIOS Support for S.M.A.R.T., Advanced Power Management, ACPI S3/S4, Wake on time from S5

Security Features

Recovery BIOS, System and BIOS Password, Boot Sequence Control, Serial-/ Parallel-/ USB- Access Protection, Boot Sector Virus Warning, Write Protection for Flash BIOS, EraseDisk (optional BIOS Feature), Trusted Platform Module.

Special Features

Silent Fan LT	Independent temperature related processor fan and system fan supervision
System Guard	View Silent Fan LT features
Silent Drives	Noise reduction for optical and hard disk drives
Recovery BIOS	Restores a corrupted BIOS
Desk Update	Simple driver update with Driver&Utilities DVD
Multi Boot	Comfortable boot from any boot device
HDD Password	Access protection for disk drives

Supported / Released Operating Systems

OS	"Runnable"	"Tested/Released by Fujitsu"
MS Windows XP	--	--
MS Windows 7-32/64	X	X
MS Windows 8.1-64	X	X
MS Windows 10-64	X	X
Linux-32/64	X	--

Designed for 24 / 7 use

Longlife components for 24 / 7 continuous operation

Graphics

Intel® HD Graphics (e.g. HD4600, depends on installed processor), DX11.1

Audio

Realtek ALC671, 5.1-channel, High Definition Audio Codec

LAN

Intel Clarkville i217LV with 10/100/1000 MBit/s, iAMT Manageability, Wake-on-LAN (WoL) by interesting Packets, Link Status Change and Magic Packet™, PXE Support, BIOS MAC Address Display

Drives

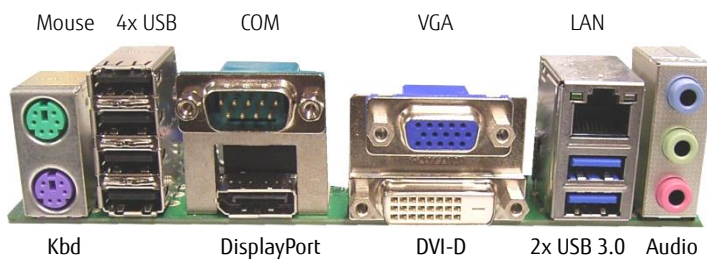
4 Serial ATA III 600 Interface (up to 6Gbit/s), 2 Serial ATA II 300 Interface NCQ, AHCI

Features

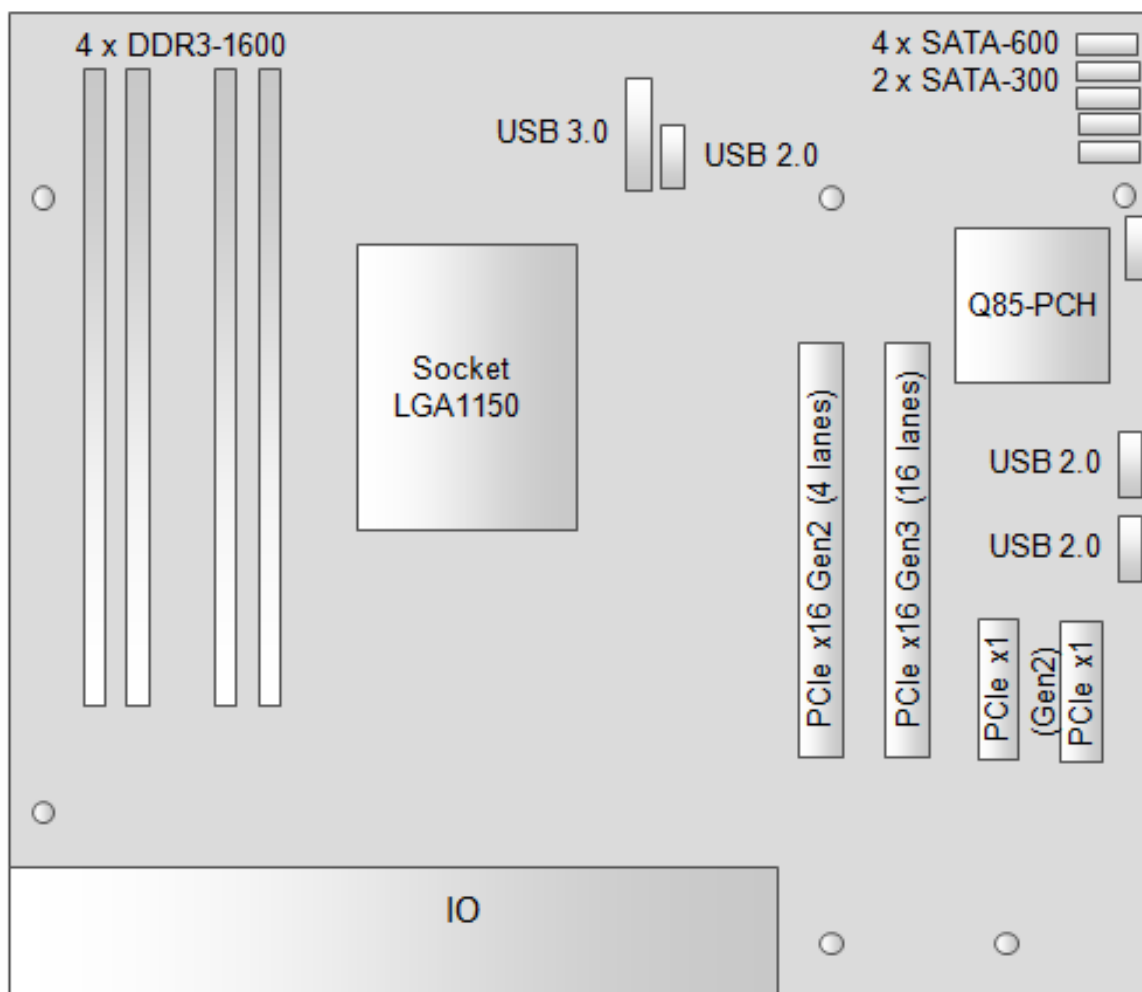
Features	D3221-B
Chipset	iQ85
Board Size	reduced µATX
VGA / DVI-I / DVI-D / DisplayPort V1.2 / LVDS	✓ / - / ✓ / ✓ / -
Stereo Audio / 5.1 Multichannel Audio	- / ✓
Buzzer / int. Speaker Support	- / ✓
LAN Gbit / 100 Mbit / 10 Mbit	✓ / ✓ / ✓
LAN ASF / DASH V1.0 / WoL / Boot / iAMT Standard	- / ✓ / ✓ / ✓ / ✓
SATA / ATA / RAID / eSATA-support	✓ / - / - / ✓
FireWire™ / USB 2.0 / USB 3.0	- / ✓ / ✓
FAN monitored PSU ¹⁾ / CPU / AUX1 / AUX2	- / ✓ / ✓ / -
FAN controlled PSU ¹⁾ / CPU / AUX1 / AUX2	- / ✓ / ✓ / -
TEMP monitored CPU / onboard sensors / external sensor	✓ / ✓ / -
Special Features	
Silent Fan / Silent Fan LT / System Guard / Silent Drives	- / ✓ / ✓ / ✓
Recovery BIOS / Desk Update / Multi Boot	✓ / ✓ / ✓
HDD Password / HDD Encryption / EraseDisk ⁴⁾ / TPM	✓ / - / ✓ / ✓
BIOS POST Watchdog / BIOS Boot Watchdog / OS HW Watchdog	- / - / -
Logo Boot Option / Intel On Screen Branding	✓ / ✓
High Efficiency Core Voltage Regulator Design	✓
Operating Mode 24-7 / 8-5 (hrs per day - days per week)	✓ / -
Mainboard operating temperature range (chassis inside)	10°C - 45°C
Internal Connectors	
DIMM Sockets (DDR3-1600)	4
PCI Express x16 Slot (Gen3) / PCI Express x16 Slot (Gen2)	1 / -
PCI Express x16 Slot (4 Lanes, Gen2) / x1 Slot (Gen2)	1 / 2
PCI Slots (32Bit, 33 MHz, Rev. 2.3)	-
SATA-600 / SATA-300 / ATA / Floppy	4 / 2 / 0 / 0
S/PDIF (digital Audio) OUT / IN	- / -
Frontpanel Audio (9-Pin, HD Audio)	1
USB 2.0 channels / USB 3.0 channels / USB Stick (2.0)	6 / 2 / -
Serial (FIFO, 16550 compatible)	-
FAN PSU ¹⁾ / CPU / AUX1 / AUX2	- / 1 / 1 / -
SMBus (Case Temperature)	-
Intrusion (Case Open)	1
Parallel (EPP/ECP) Pin Connector ²⁾	1
ATX Power Supply (24 pin + 4 pin) / 12V-only PowerSupply	✓ / -
External Connectors	
VGA Sub D / DVI-I / DVI-D / DisplayPort V1.2 ³⁾	1 / - / 1 / 1
Audio Mic. In / Line in / Line out (or driver configuration)	1 / 1 / 1
S/PDIF (digital Audio) OUT / IN	- / -
LAN (RJ-45)	1
PS/2 Mouse / Keyboard	1 / 1
USB 2.0 / USB 3.0	4 / 2
Serial (RS232, FIFO, 16550 compatible)	1
Parallel (EPP/ECP) ²⁾	-

- Not supported by standard Power Supplies
- External parallel port possible via optional connector cable
- Second Display Port possible via PCIe x4-Adapter D3213
- Optional BIOS Feature

External Connectors



Connector / Socket Diagram



Further industrial products offered by Fujitsu

- Connectors
- KVM Switches
- Relays
- Touch Panels
- Thermal Printers
- Wireless Modules



24 Volt Kiosk Printers



Multi-Input Touch Panels

Contact:

Fujitsu Components Europe, B.V.
 Tel.: +31 (0)23 556 0910
 Fax: +31 (0)23 556 0950
 Website: emea.fujitsu.com/components
 Address: Diamantlaan 25
 2132 WV Hoofddorp
 Netherlands

More information

Fujitsu products, solutions & services

Products

www.fujitsu.com/global/products/
In addition to the Fujitsu [Product name], Fujitsu offers a full portfolio of other computing products.

Computing products

- Storage systems: ETERNUS
- Server: PRIMERGY, PRIMEQUEST, Fujitsu SPARC M10, BS2000/OSD Mainframe
- Client Computing Devices: LIFEBOOK, STYLISTIC, ESPRIMO, FUTRO, CELSIUS
- Peripherals: Fujitsu Displays, Accessories
- Software
- Network

Product Support Services with different service levels agreements are recommended to safeguard each product and ensure smooth IT operation.

Solutions

<http://www.fujitsu.com/global/solutions>
The Fujitsu solutions combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships. Fujitsu's Solutions include parts of one or more activity groups (e.g., planning, implementation, support, management, and training services) and are designed to solve a specific business need.

Infrastructure Solutions are customer offerings created by bringing Fujitsu's best products, services and technologies together with those from partners to deliver benefit to our customers' businesses.

Industry Solutions are tailored to meet the needs of specific verticals.

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www.fujitsu.com/global/services/
Several customizable Fujitsu Service offerings ensure that IT makes a real difference and delivers true business value. We do this by leveraging our extensive experience in managing large, complex, transformational IT programs to help clients in planning, delivering and operating IT services in a challenging and changing business environment.

Application Services support the development, integration, testing, deployment and on-going management of both custom developed and packaged applications. The services focus on delivering business and productivity improvements for organizations.

Business Services respond to the challenge of planning, delivering and operating IT in a complex and changing IT environment.

Managed Infrastructure Services enable customers to deliver the optimal IT environment to meet their needs – achieving high levels of IT service quality and performance for data center and end user environments.

Fujitsu green policy innovation

www.fujitsu.com/global/about/environment/
Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to resolve issues of environmental energy efficiency through IT. Please find further information at:



More information

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www.fujitsu.com/fts/mainboards/

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Contact

FUJITSU Technology Solutions
OEM Mainboard Sales
Email: oem-sales@ts.fujitsu.com

Website: <http://ts.fujitsu.com>
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