Data Sheet
FUJITSU Mainboard D3222-B µATX
Extended Lifecycle Series

Powered by the Intel® Q87 Express Chipset supporting DDR3 1600 SDRAM Memory and 4th generation Intel® Core™ i3 / i5 / i7 Processors (Socket LGA1150)

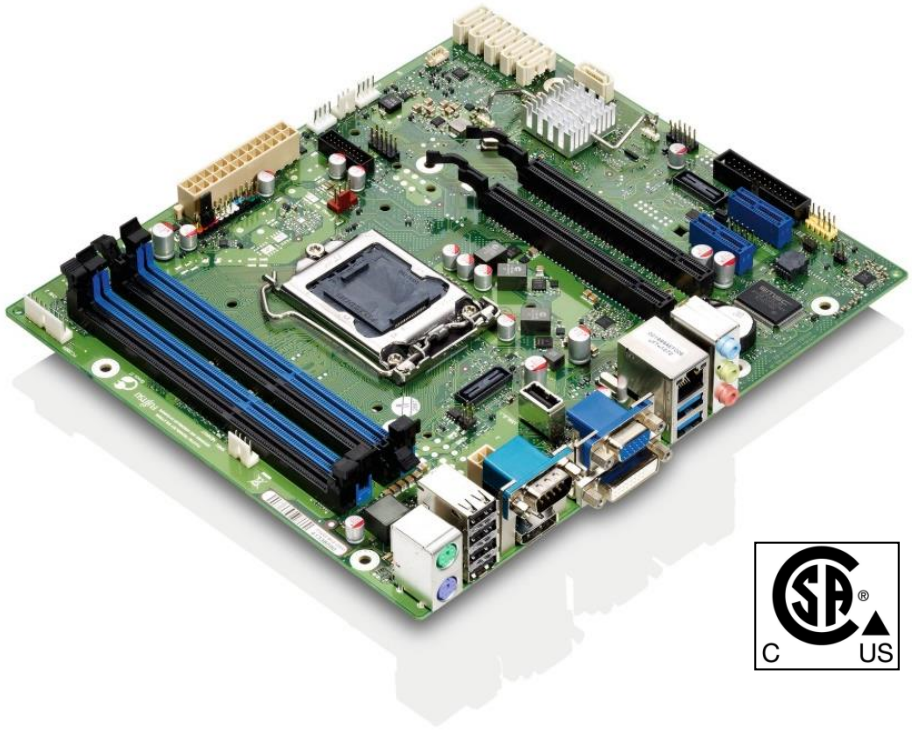
Designed for 24/7 continuous operation

Chipset:
Intel® Q87 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 9.1 / vPro 2014
Intel® HD Graphics (e.g. HD4600)
PCI Express Gen3
Multichannel Audio & Intel GbE LAN onboard
USB 2.0/3.0 and USB socket (stick/dongle) onbo
Trusted Platform Modul V1.2 (Infineon) onboard
HW Watchdog onboard
Second Display Port optional via specific PCIe car



Features and benefits

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

Chipset Intel® Q87 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- Port Access Protection, Boot Sector Virus Warning, Write Protection for Flash BIOS, EraseDisk (optional BIOS Feature), Trusted Platform Module.

Special Features

Silent Fan	Independent temperature related processor fan and system fan supervision and control
System Guard	View and adjust Silent Fan 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
UL/CSA certified	CSA 60950-1-07 SE / UL 60950-1 SE

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
Revision control & Extended Lifecycle (up to 3 years)

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

Audio
Realtek ALC671, 5.1-channel, High Definition Audio Codec

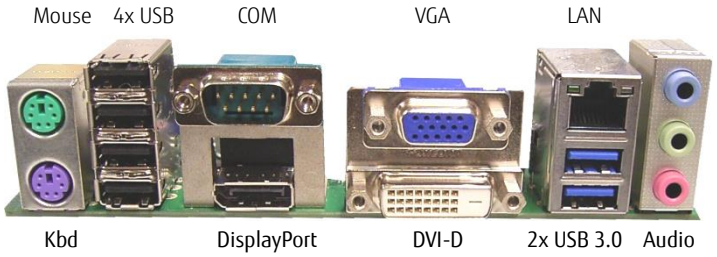
LAN
Intel Clarkville i217LM with 10/100/1000 MBit/s, iAMT 9 / vPro Support, Wake-on-LAN (WoL) by interesting Packets, Link Status Change and Magic Packet™, PXE Support, BIOS MAC Address Display

Drives
6 Serial ATA III 600 Interface (up to 6GBit/s),
NCQ, AHCI, RAID 0/1/5/10

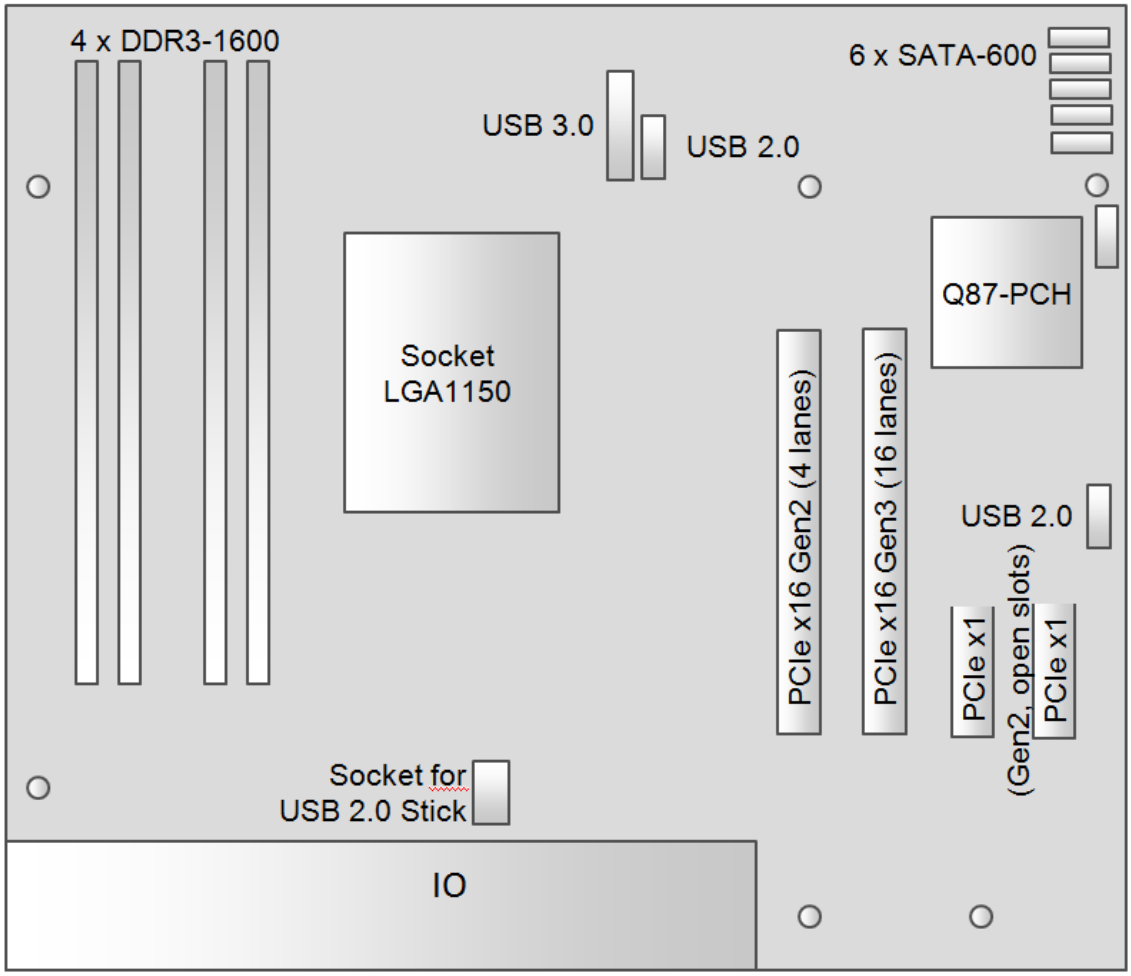
Features	D3222-B
Chipset	iQ87
Board Size	reduced µATX
VGA / DVI-I / DVI-D / DisplayPort V1.2 / LVDS	✓ / - / ✓ / ✓ / -
Stereo Audio / 5.1 Multichannel Audio	- / ✓
Buzzer / int. Speaker Support	- / ✓
LAN Gbit / 100 Mbit / 10 Mbit	✓ / ✓ / ✓
LAN ASF / DASH V1.0 / WoL / Boot / iAMT 9.1	- / ✓ / ✓ / ✓ / ✓
SATA / 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 – 50°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	6 / - / - / -
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)	4 / 2 / 1
Serial (FIFO, 16550 compatible)	-
FAN PSU [1] / CPU / AUX1 / AUX2	1 / 1 / 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]	-

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

External Connectors



Connector / Socket Diagram



Further industrial products offered by Fujitsu

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

24 Volt Kiosk Printers

Multi-Input Touch Panels

Contact:

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Fujitsu green policy innovation

www.fujitsu.com/global/about/environment/
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Green Policy Innovation

More information

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