

# Data Sheet FUJITSU Mainboard D3410-B µATX

# Classic Desktop Series

Powered by the Intel® B150 Express Chipset supporting DDR4 2133/2400 SDRAM Memory and  $6^{th}$  &  $7^{th}$  generation Intel® Core<sup>TM</sup> i3 / i5 / i7 Processors (Socket LGA1151)

Designed for 24/7 continuous operation @ 45°C

# Chipset:

Intel® B150 Express Chipset

# **Processors:**

Intel® Core™ i7 / i5 / i3 – (6<sup>th</sup> gen. & 7<sup>th</sup> gen.) processor series Intel® Pentium® / Celeron® processor series Socket LGA1151 – up to 65W TDP

# Memory:

DDR4 2133 SDRAM (UDIMM) DDR4 2400 SDRAM (UDIMM)

# **Product Features:**

Intel® HD Graphics (up to 3 digital displays)
PCI Express Gen3
Multichannel Audio & Realtek GbE LAN onboard
USB 2.0 and USB 3.0 onboard
Trusted Platform Module V2.0 (Intel integrated)





































# Features and benefits

Board Size	ultra small μATX: 218 x 183 mm
Chipset	Intel® B150 Express Chipset
Memory	2 DIMM Sockets DDR4, max. 32GB, Dual Channel, 2133MHz (CL15) / 2400MHz (CL17), UDIMM, 1.2V/2.5V, 288-pin, non-ECC. Effective memory speed depends on installed processor
Processor	Intel® Core™ i7 / i5 / i3 – (6th generation) processor series Intel® Core™ i7 / i5 / i3 – (7th generation) processor series (D3410-B2 only) Intel® Pentium® / Celeron® processor series
	Socket LGA1151, max. 65W TDP (For details on supported processors please refer to OEM FTP Server)
Power Specification	ATX- 24 Pin or ATX- 20 Pin + 4 Pin (12V) Power Connector required Support for Soft-Off Power Supplies 12V and 3.3V Supply Voltage on PCIe Slots 3.3V Auxiliary Supply Voltage on PCIe 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 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
	+ 12V	0.05A	± 5 %	5.000µF	8A/12A <sup>1)</sup>
Main Power Supply	- 12V	0A	± 10 %	470µF	0.3A
	+ 5V	0.2A	± 5 %	3.000µF	6.0A
	+ 3.3V	0A	± 5 %	3.000µF	0.5A
Aux. Power	+ 5Vaux	0A	+5 % / -3%	3.000µF	2.5A

	1) Max. Cont. Current = 8A; max. Surge Current = 10A (< 100sec) / 12A (< 10ms)		
BIOS	AMI Aptio 5.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, Boot Sector Virus Warning,		
	Write Protection for Flash BIOS, EraseDisk (optional BIOS Feature)		
	Trusted Platform Module (Intel TPM V2.0, chipset integrated).		

Page 2 of 6 ts.fujitsu.com/mainboards

Special Features	Silent Fan LT	Independent temperature related processor fan and			
		system fan su	rstem 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			
Operating Systems	OS	"Runnable"	"Tested/Released by Fujitsu"		
	MS Windows XP				
	MS Windows 7-32 1)	Χ	Χ		
	MS Windows 7-64 1)	Χ	Χ		
	MS Windows 8.1-64 1)	Χ			
	MS Windows 10-64	Χ	Χ		
	Linux-32	Χ			
		Χ			

# **Further Features**

	Mainboard Versions		
Feature	D3410-B1x	D3410-B2x	
UDIMM DDR4-2133 / DDR4-2400	x / - 1)	x / x	
Intel® Core™ i processor series – 6 <sup>th</sup> gen. / 7 <sup>th</sup> gen.	x / -	x/x	
Intel® Pentium® / Celeron® processor series – 6 <sup>th</sup> gen. / 7 <sup>th</sup> gen.	x / -	x/x	
Skylake Drivers / Kabylake Drivers (MS Windows)	x/x	- / x	

<sup>1)</sup> DDR4-2400 modules can be used, but they will operate at reduced speed

Designed for 24 / 7 use	Longlife components for 24 / 7 continuous operation @ 45°C
Graphics	Intel® HD Graphics (depends on installed processor), DX12. Supporting up to 3 independent digital displays
Audio	Realtek ALC671, 5.1-channel, High Definition Audio Codec
LAN	Realtek RTL8111G with 10/100/1000 MBit/s, Wake-on-LAN (WoL) by interesting Packets, Link Status Change and Magic Packet™, PXE Support, BIOS MAC Address Display, Jumbo Frames (up to 9KB)
Drives	4 x Serial ATA III 600 Interface (up to 6GBit/s), NCQ, AHCI

Page 3 of 6 ts.fujitsu.com/mainboards

Features	Chipset	iB150
D3410-B	Board Size	ultra small µATX
	VGA <sup>1</sup> / DVI-I / DVI-D / DP V1.2 / 2 <sup>nd</sup> DP V1.2 / LVDS	- -  \langle   \langle   \langle   -
	Stereo Audio / 5.1 Multichannel Audio	- / ✔
	Buzzer / int. Speaker Support	- / <b>√</b>
	LAN Gbit / 100 Mbit / 10 Mbit / WoL / LAN Boot	<b>√</b>   <b>√</b>   <b>√</b>   <b>√</b>   <b>√</b>
	iAMT 11.0 vPro / Intel Standard Manageability / DASH V1.1	-   -   -
	SATA / ATA / RAID / eSATA-support / M.2 (PCIe x4 or SATA)	<b>√</b>   -   -   <b>√</b>   -
	FireWire™ / USB 2.0 / USB 3.0	-   🗸   🗸
	FAN monitored & controlled PSU / CPU / AUX1 / AUX2	-   🗸   🗸   -
	TEMP monitored CPU / onboard sensors / external sensor	<b>√</b>   <b>√</b>   -
Special Features	Silent Fan / Silent Fan LT / System Guard / Silent Drives	-   🗸   🗸   🗸
D3410-B	Recovery BIOS / Desk Update / Multi Boot	<b>√</b>   <b>√</b>   <b>√</b>
	HDD Password / HDD Encryption / EraseDisk <sup>2</sup> / TPM	<b>√</b>   -   <b>√</b>   <b>√</b>
	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
	ILM - Backplate / ILM + Heatsink combined <sup>3</sup>	√   -
Internal Connectors	DIMM Sockets (DDR4-2133/2400)	2
D3410-B	PCI Express x16 Slot (Gen3)	1
	PCI Express x1 Slot (Gen2) / PCI Express x1 Slot (Gen3)	-12
	PCI Slots (32Bit, 33 MHz, Rev. 2.3)	
	SATA-600 / SATA-300 / ATA / Floppy / M.2 SSD	4 / - / - / -
	S/PDIF (digital Audio) OUT / IN	-/-
	Frontpanel Audio (9-Pin, HD Audio)	1
	USB 2.0 channels / USB 3.0 channels / USB Stick (3.0)	4/2/-
	Serial (COM2, RS232)	1
	FAN PSU / CPU / AUX1 / AUX2	-/1/1/-
	SMBus (Case Temperature)	-
	Intrusion (Case Open)	-
	Parallel Port Pin Connector	_
	ATX Power Supply (24 pin + 4 pin) / 12V-only Power Supply	<b>√</b> / -
External Connectors	VGA Sub D <sup>1</sup> / DVI-I / DVI-D / DisplayPort V1.2	-/-/1/2
D3410-B	Audio Mic. In / Line in / Line out (or driver configuration)	1/1/1
	LAN (RJ-45)	1,1,1,1
	PS/2 Mouse / Keyboard	1/1
	USB 2.0 / USB 3.0	4/2
	Serial (COM1, RS232)	-
	Parallel (EPP/ECP)	

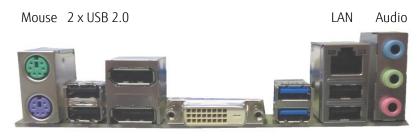
Page 4 of 6 ts.fujitsu.com/mainboards

<sup>1</sup> VGA possible via optional converter board D3463 or DP-VGA-converter (dongle)

 $<sup>{\</sup>it 2\ Optional\ BIOS\ Feature,\ License\ required}$ 

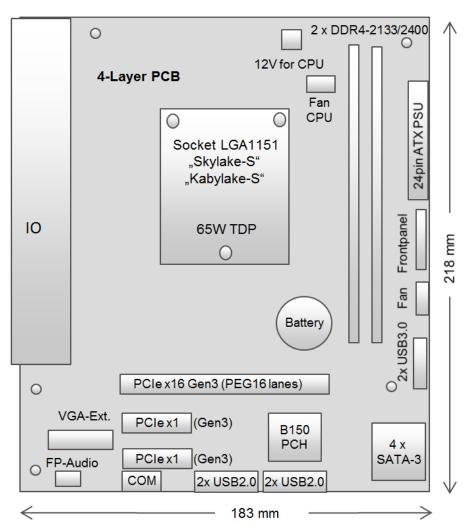
<sup>3</sup> Combined backplate: Can't be used for pushpin heatsink

# **External Connectors**



Kbd 2 x DisplayPort V1.2 DVI-D 2 x USB 3.0 2 x USB 2.0

# 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 mainboards, 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, STY-LISTIC, 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.

**Business and Technology Solutions** provide a variety of technologies developed to tackle specific business issues such as security and sustainability, across many verticals.

### Services

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

Learn more about Fujitsu, please contact your Fujitsu sales representative, Fujitsu business partner,

or visit our website.

www.fujitsu.com/fts/mainboards/

### Copyright

© 2015 Fujitsu Technology Solutions GmbH Fujitsu and the Fujitsu logo are trademarks or registered trademarks of Fujitsu Limited in Japan and other countries.

Intel Chipset C236, Xeon C3 and Intel Core i7 / i5 / i3 are trademarks or registered trademarks of Intel Corporation in America and other countries. Other company, product and service names may be trademarks or registered trademarks of their respective owners. All rights reserved, including intellectual property rights. Changes to technical data reserved. Delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded.

### Disclaimer

Technical data subject to modification and delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.

### Contact

Fujitsu Technology Solutions GmbH OEM Mainboard Sales Email: <u>oem-sales@ts.fujitsu.com</u>

Website: http://ts.fujitsu.com 2017-05-05 Copyright © Fujitsu Technology Solutions

All rights reserved, including intellectual property rights. Changes to technical data reserved. Delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.

For further information see http://ts.fujitsu.com/terms\_of\_use.html