

Data Sheet

FUJITSU Mainboard D3417-B µATX

Extended Lifecycle Series

Powered by the Intel® C236 Express Chipset supporting DDR4 2133/2400 SDRAM Memory and 6th & 7th generation Intel® Core™ i3 / i5 / i7, Xeon® E3-1200 V5 and Xeon® E3-1200 V6 Processors (Socket LGA1151)

Designed for 24/7 continuous operation @ 50°C



Chipset:

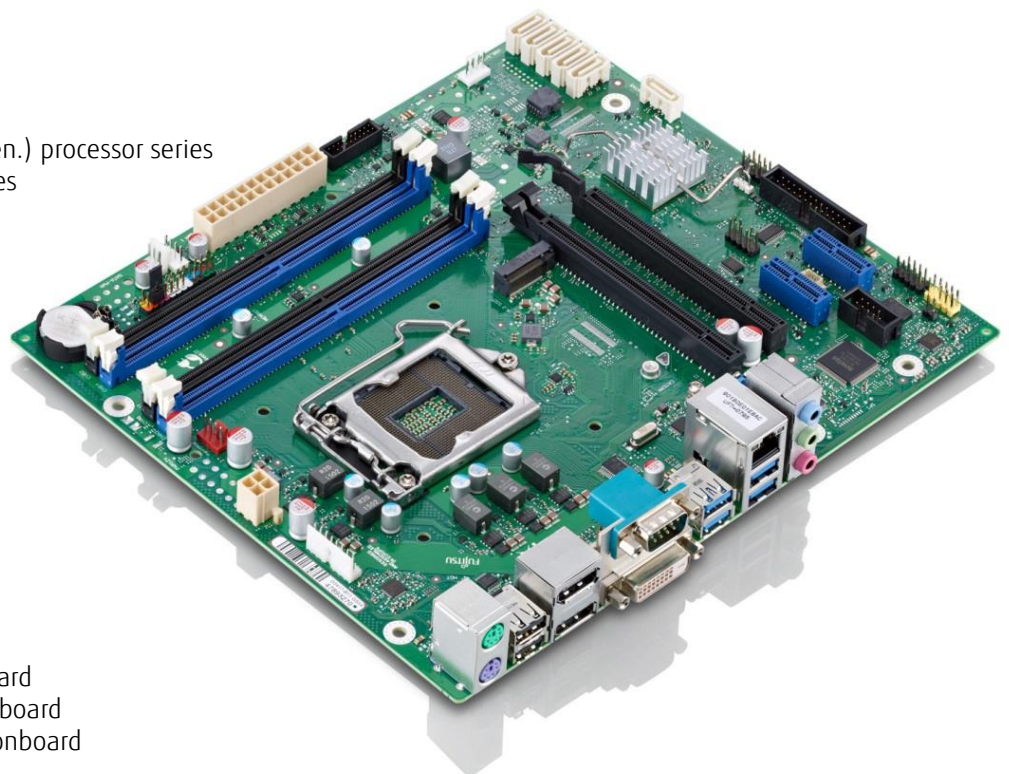
Intel® C236 Express Chipset

Processors:

Intel® Xeon® E3-1200 V5 processor series
Intel® Xeon® E3-1200 V6 processor series
Intel® Core™ i7 / i5 / i3 – (6th gen. & 7th gen.) processor series
Intel® Pentium® / Celeron® processor series
Socket LGA1151 – up to 80W TDP

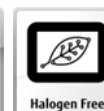
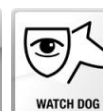
Memory:

DDR4 2133 SDRAM (UDIMM)
DDR4 2400 SDRAM (UDIMM)
ECC / Non-ECC



Product Features:

Intel® iAMT 11.0
Onboard Support for M.2 SSD (PCIe)
Intel® HD Graphics
PCI Express Gen3
Multichannel Audio & Intel GbE LAN onboard
USB 2.0/3.0 and USB 3.0 Socket (Stick) onboard
Trusted Platform Module V2.0 (Infineon) onboard
HW Watchdog onboard



Features and benefits

Board Size	reduced µATX: 9.6" x 8.4" (243.8 x 213.4 mm)
Chipset	Intel® C236 Express Chipset
Memory	4 DIMM Sockets DDR4, max. 64GB, Dual Channel, 2133MHz (CL15) / 2400MHz (CL17), UDIMM, 1.2V/2.5V, 288-pin, ECC (appropriate processor required) / non-ECC. Effective memory speed depends on installed processor
Processor	Intel® Xeon® E3-1200 V5 processor series Intel® Core™ i7 / i5 / i3 – (6th generation) processor series Intel® Core™ i7 / i5 / i3 – (7th generation) processor series (D3417-B2 only) Intel® Pentium® / Celeron® processor series Socket LGA1151, max. 80W TDP
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; w/o USB devices; w/o PCIe cards, w/o M.2 / SATA drives)

Source	Voltage	Min. PS Load	Max.Voltage Tolerance	Mainboard Capacitive Load	Max. Mainboard Current
Main Power Supply	+ 12V	0.05A	± 5 %	5.000µF	10A/15A ¹⁾
	- 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 = 10A; max. Surge Current = 12A (<100sec) / 15A (<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. Boot support for M.2 SSD (PCIe-based based modules, AHCI / NVME)
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 (Infineon SLB 9665; TPM V2.0; TCG compliant).

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	
	CSA / UL / FCC certified	cCSAus 60950-1/ FCC-B (planned)	

Operating Systems	OS	"Runnable"	"Tested/Released by Fujitsu"
	MS Windows XP	--	--
MS Windows 7-32 ¹⁾	X	X	
MS Windows 7-64 ¹⁾	X	X	
MS Windows 8.1-64 ¹⁾	X	--	
MS Windows 10-64	X	X	
Linux-32	X	--	
Linux-64	X	--	

1) Requires Skylake (= 6th gen.) processor!

Further Features

Feature	Mainboard Versions	
	D3417-B1x	D3417-B2x
UDIMM DDR4-2133 / DDR4-2400	x / - ¹⁾	x / x
Intel® Core™ i processor series – 6 th gen. / 7 th gen.	x / -	x / x
Intel® Pentium® / Celeron® processor series – 6 th gen. / 7 th gen.	x / -	x / x
Intel® Xeon® processor series E3-12xx V5 / E3-12xx V6	x / -	x / x
Skylake Drivers / Kabylake Drivers (MS Windows)	x / x	- / x

1) 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 @ 50°C Revision control & Extended Lifecycle (up to 3 years)
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Graphics	Intel® HD Graphics (depends on installed processor), DX12
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Audio	Realtek ALC671, 5.1-channel, High Definition Audio Codec
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LAN	Intel i219LM with 10/100/1000 MBit/s, iAMT 11 Support, Wake-on-LAN (WoL) by interesting Packets, Link Status Change and Magic Packet™, PXE Support, BIOS MAC Address Display, Jumbo Frames (up to 9KB)
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Drives	6 x Serial ATA III 600 Interface (up to 6GBit/s, NCQ, AHCI, RAID 0/1/5/10) 1 x M.2 Socket (2260/2280) for PCIe (4 lanes) based M.2 modules, AHCI / NVME Boot support
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Features D3417-B	Chipset	iC236
	Board Size	reduced µATX
	VGA ¹ / DVI-I / DVI-D / DP V1.2 / 2 nd DP V1.2 / LVDS	- / - / ✓ / ✓ / ✓ / ✓ / -
	Stereo Audio / 5.1 Multichannel Audio	- / ✓
	Buzzer / int. Speaker Support	- / ✓
	LAN Gbit / 100 Mbit / 10 Mbit / WoL / LAN Boot	✓ / ✓ / ✓ / ✓ / ✓ / ✓
	iAMT 11.0 / Intel Standard Manageability / DASH V1.1	✓ / ✓ / ✓
	SATA / ATA / RAID / eSATA-support / M.2 (PCIe x4)	✓ / - / ✓ / ✓ / ✓ / ✓
	FireWire™ / USB 2.0 / USB 3.0	- / ✓ / ✓
	FAN monitored & controlled PSU ² / CPU / AUX1 / AUX2	✓ / ✓ / ✓ / ✓
	TEMP monitored CPU / onboard sensors / external sensor	✓ / ✓ / -
Special Features D3417-B	Silent Fan / Silent Fan LT / System Guard / Silent Drives	✓ / - / ✓ / ✓
	Recovery BIOS / Desk Update / Multi Boot	✓ / ✓ / ✓
	HDD Password / HDD Encryption / EraseDisk ³ / 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
	ILM - Backplate / ILM + Heatsink combined ⁴	✓ / -
Internal Connectors D3417-B	DIMM Sockets (DDR4-2133/2400)	4
	PCI Express x16 Slot (Gen3)	1
	PCI Express x16 Slot (4 Lanes, Gen3) / x1 Slot (Gen3)	1 / 2
	PCI Slots (32Bit, 33 MHz, Rev. 2.3)	-
	SATA-600 / SATA-300 / ATA / Floppy / M.2 SSD	6 / - / - / - / 1
	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 / 1
	Serial (COM2, RS232)	1
	FAN PSU ² / CPU / AUX1 / AUX2	1 / 1 / 1 / 1
	Intrusion (Case Open) / SMBus (Case Temperature)	1 / -
	Parallel Port Pin Connector ⁵	1
	ATX Power Supply (24 pin + 4 pin) / 12V-only Power Supply	✓ / -
External Connectors D3417-B	VGA Sub D ¹ / DVI-I / DVI-D / DisplayPort V1.2	- / - / 1 / 2
	Audio Mic. In / Line in / Line out (or driver configuration)	1 / 1 / 1
	LAN (RJ-45)	1
	PS/2 Mouse / Keyboard	1 / 1
	USB 2.0 / USB 3.0	2 / 4
	Serial (COM1, RS232)	1
	Parallel (EPP/ECP) ⁵	-

1 VGA possible via optional converter board D3453 or DP-VGA-converter (dongle)

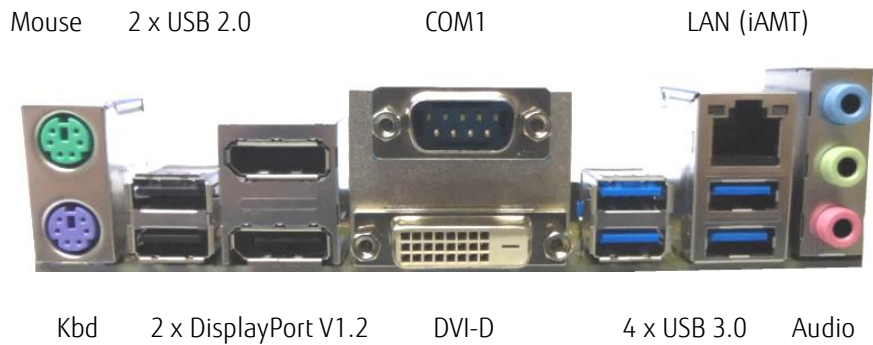
2 Not supported by standard Power Supplies

3 Optional BIOS Feature, License required

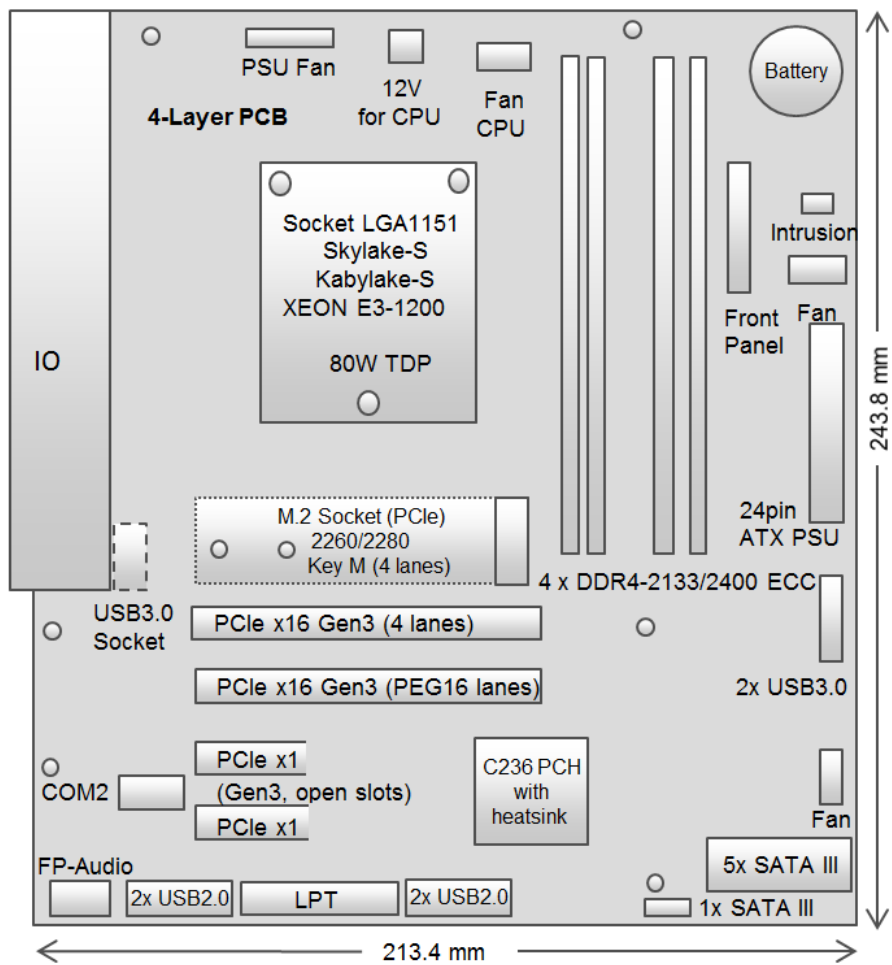
4 Combined backplate: Can't be used for pushpin heatsink

5 External parallel port possible via optional connector cable - Note: Intel limitation →ECP-DMA-Mode no longer supported

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:

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

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Contact

Fujitsu Technology Solutions GmbH

OEM Mainboard Sales

Email: oem-sales@ts.fujitsu.com

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

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