

# Data Sheet

## FUJITSU Mainboard D3674-B Thin Mini-ITX

### Extended Lifecycle Series

Powered by the Intel® H310 Express Chipset supporting DDR4-2666 SDRAM Memory and Intel® 8<sup>th</sup> generation Core™ i3 / i5 / i7 Processors



Designed and approved for 24/7 continuous operation @ 50°C

#### Chipset:

Intel® H310 Express Chipset

#### Processors:

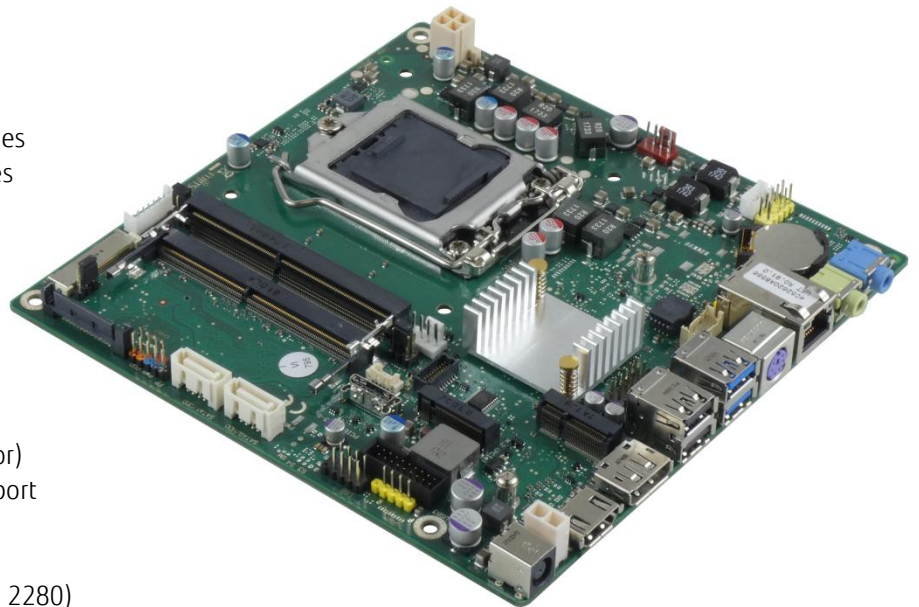
Intel® Core™ i7 / i5 / i3 – (8<sup>th</sup> gen.) processor series  
Intel® Pentium® / Intel® Celeron® processor series  
Socket LGA1151 – up to 65W TDP

#### Memory:

DDR4-2666, Dual Channel  
2 SO-DIMM sockets, up to 32GB memory

#### Product Features:

Intel® HD Graphics (DX12, integrated in processor)  
HDMI V1.4, DP V1.2 and Dual Channel LVDS support  
8 Bit GPIO & multichannel Audio onboard  
USB 2.0 and USB3.1 Gen1 onboard  
Onboard support for M.2 SSD (PCIe x4 based M.2 2280)  
Onboard support for M.2 WLAN/Bluetooth (M.2 2230)  
Realtek GbE LAN onboard  
Intel integrated TPM V2.0 onboard  
Dual-Range DC Power Supply 12V / 19-24V  
HW Watchdog onboard



(upon request)



# Features and benefits

<b>Board Size</b>	Thin Mini-ITX: 6.7" x 6.7" (170 x 170 mm)
<b>Chipset</b>	Intel® H310 Express Chipset
<b>Memory</b>	2 x SO DIMM Socket (1.2V), max. 32GB, Dual Channel, DDR4 - 2666 (CL19) / DDR4 - 2400 (CL17) SDRAM, unbuffered, non-ECC Effective memory speed depends on installed processor
<b>Processor</b>	Intel® Core™ i7 / i5 / i3 - (8 <sup>th</sup> generation) processor series Intel® Pentium® / Intel Celeron® processor series Socket LGA1151, max. 65W TDP (For details on supported processors please refer to OEM FTP Server)
<b>Power Specification</b>	External DC Input 19-24V Internal DC Input 12V or 19-24V Onboard high-efficiency CPU Core Voltage Regulator
<b>Power Supply Requirements</b>	For onboard components (worst case incl. processor, memory and any attached internal and external devices like M.2 devices, SATA devices, LVDS panels, USB devices.

Source <sup>1)</sup>	Voltage	Min. PS Load	Max.Voltage Tolerance	Mainboard Capacitive Load	Max. Mainboard Input Power
External connector	19-24V	0A	+10% / -15%	200µF	max. 10A max. 130W <sup>1)</sup>
Internal (2 pin) connector	19-24V	0A	+10% / -15%	200µF	max. 8A max. 130W <sup>1)</sup>
Internal (4 pin) connector	+12V	0A	± 5 %	1.500µF	max. 12A max. 144W

<sup>1)</sup> LVDS backlight (19/24V) not included in 130W limit. See TechNotes document for further details.  
Possible surge current (CPU Turbo mode) must be considered for system design!

<b>BIOS</b>	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 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 x4-based M.2, NVME) BIOS integrated HW Diagnostic Tool, Watchdog Support <b>No legacy OS support, no MBR installation</b> (UEFI only due to Intel restrictions)
<b>Security Features</b>	Recovery BIOS, System and BIOS Password, Boot Sequence Control, Serial- / USB- Port Access Protection, Boot Sector Virus Warning, Write Protection for Flash BIOS, EraseDisk <sup>1</sup> (optional BIOS Feature), Intel integrated TPM V2.0, optional Infineon TPM module (TCG compliant, socket prepared)

<sup>1</sup> License required!

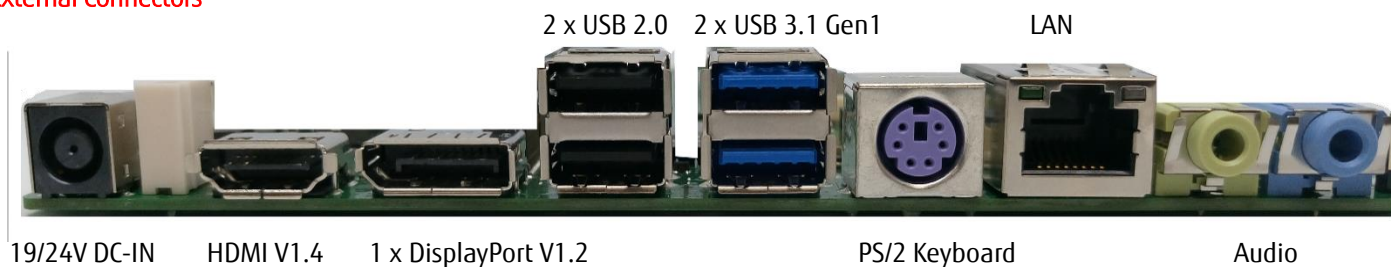
<b>Special Features</b>	Silent Fan	Independent temperature related processor fan and system fan supervision	
	System Guard	View Silent Fan features	
	Recovery BIOS	Restores a corrupted BIOS	
	Desk Update	Simple driver update with Driver & Utilities DVD	
	Multi Boot	Comfortable boot from any boot device	
	HDD Password	Access protection for disk drives	
	Always On	Reliable power-on whenever voltage is connected	
	Never Off	Option to prevent the system from being shut down	
	CSA / UL Compliance	Upon request: cTÜVus acc. IEC62368-1	
	FCC Compliance	FCC-B verified	
<b>Operating Systems</b>	<b>OS</b>	<b>"Runnable"</b>	<b>"Tested/Released by Fujitsu"</b>
	MS Windows 7	--	--
	MS Windows 10-64 RS3	X	X
	MS Windows 10-64 RS4	X	X
	Linux-64	X	--
	<b>Important Note:</b> Legacy OS / MBR installation (DOS, MS Windows 7, ...) is not supported due to Intel restrictions		
<b>Graphics</b>	Intel® HD Graphics (depends on installed processor), DX12 1 x DisplayPort V1.2 1x HDMI V1.4, Dual-Channel 24bit LVDS Max. 2 independent displays		
<b>Audio</b>	Realtek ALC255, 5.1-channel, High Definition Audio Codec, 2W@40hm stereo speaker support		
<b>LVDS</b>	LVDS Controller Realtek RTD2136R (DisplayPort to LVDS converter)		
<b>LAN</b>	Realtek RTL8111E 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		
<b>SATA Ports</b>	2 x Serial ATA III 600 Interface (up to 6Gbit/s), NCQ, AHCI		
<b>M.2 Sockets</b>	M.2 2280 Key-M for PCIe-based SSD NVME modules; 4 x PCIe Gen2 lanes M.2 2230 Key-E for PCIe/USB-based WLAN/Bluetooth modules; 1 x PCIe Gen2, 1 x USB2.0		
<b>Designed for 24 / 7 use</b>	Longlife components for 24 / 7 continuous operation @ 50°C Revision control & Extended Lifecycle (min. 3 years)		

<b>Features</b> <b>D3674-B</b>	Chipset	iH310
	Board Size	Thin Mini-ITX
	DP V1.2 / 2 <sup>nd</sup> DP V1.2 / LVDS / HDMI 1.4 / eDP	✓ / - / ✓ / ✓ / ✓ / -
	Buzzer / int. Speaker Support (stereo) / 5.1 Multichannel Audio	- / ✓ / ✓
	LAN Gbit / 100 Mbit / 10 Mbit / WoL / LAN Boot	✓ / ✓ / ✓ / ✓ / ✓ / ✓
	iAMT 12.0 vPro / Intel Standard Manageability / DASH V1.1	- / - / -
	SATA / RAID / eSATA-Support / mSATA / M.2 SSD (PCIe)	✓ / - / ✓ / - / ✓
	USB 2.0 / USB 3.1 gen1 / USB 3.1 gen2	✓ / ✓ / -
	FAN monitored & controlled PSU / CPU / AUX1 / AUX2	- / ✓ / ✓ / -
	TEMP monitored CPU / onboard sensors / external sensor	✓ / ✓ / -
<b>Special Features</b> <b>D3674-B</b>	Silent Fan / System Guard / Silent Drives	✓ / ✓ / -
	Recovery BIOS / Desk Update / Multi Boot	✓ / ✓ / ✓
	HDD Password / EraseDisk <sup>2</sup> / TPM V2.0	✓ / ✓ / ✓
	Logo Boot Option / Intel On Screen Branding	✓ / ✓
	High Efficiency Core Voltage Regulator Design	✓
	BIOS POST- / BIOS Boot- / OS- HW Watchdog	✓ / ✓ / ✓
	Operating Mode 24-7 / 8-5 (hrs per day - days per week)	✓ / -
	Mainboard operating temperature range (chassis inside) <sup>3</sup>	10°C – 50°C
<b>Internal Connectors</b> <b>D3674-B</b>	SO DIMM Sockets (DDR4-2666)	2
	SATA-600 / mSATA / M.2 SSD 2280 (Key-M, PCIe/NVME)	2 / - / 1
	M.2 2230 (Key-E, PCIe & USB2.0 for WLAN/Bluetooth)	1
	Frontpanel Audio (9-Pin, HD Audio)	1
	USB 2.0 channels / USB 3.1 Gen1 channels / USB 3.1 Gen2 / USB Stick	3 / 2 / - / -
	Serial (COM1, RS232) / Parallel Port Connector	1 / -
	LVDS / LVDS Backlight / Embedded DisplayPort	1 / 1 / -
	FAN PSU / CPU (PWM) / AUX1 (PWM) / AUX2	0 / 1 / 1 / 0
	Intrusion (Case Open) / GPIO (8Bit) / SMBus (Case Temp.)	1 / 1 / -
	Internal Stereo Speakers header / DMIC header (digital microphone)	1 / 1
	Front Panel (Power Switch, Reset Switch, LEDs, Intel 10 pin header)	1
	Onboard SATA Drive Power Connector	1
	Onboard (internal) DC-In Connector 12V (4 pin) / 19-24V (2 pin)	1 / 1
<b>External Connectors</b> <b>D3674-B</b>	DVI-I / DVI-D / DisplayPort V1.2 / HDMI V1.4	- / - / 1 / 1
	Audio Mic. In / Line in / Line out (or driver configuration)	- / 1 / 1
	LAN (RJ-45)	1
	PS/2 Mouse / Keyboard	- / ✓
	USB 2.0 / USB 3.1 Gen1 / USB 3.1 Gen2	2 / 2 / 0
	DC-In connector (external input) 19-24V @ 10A max.	1

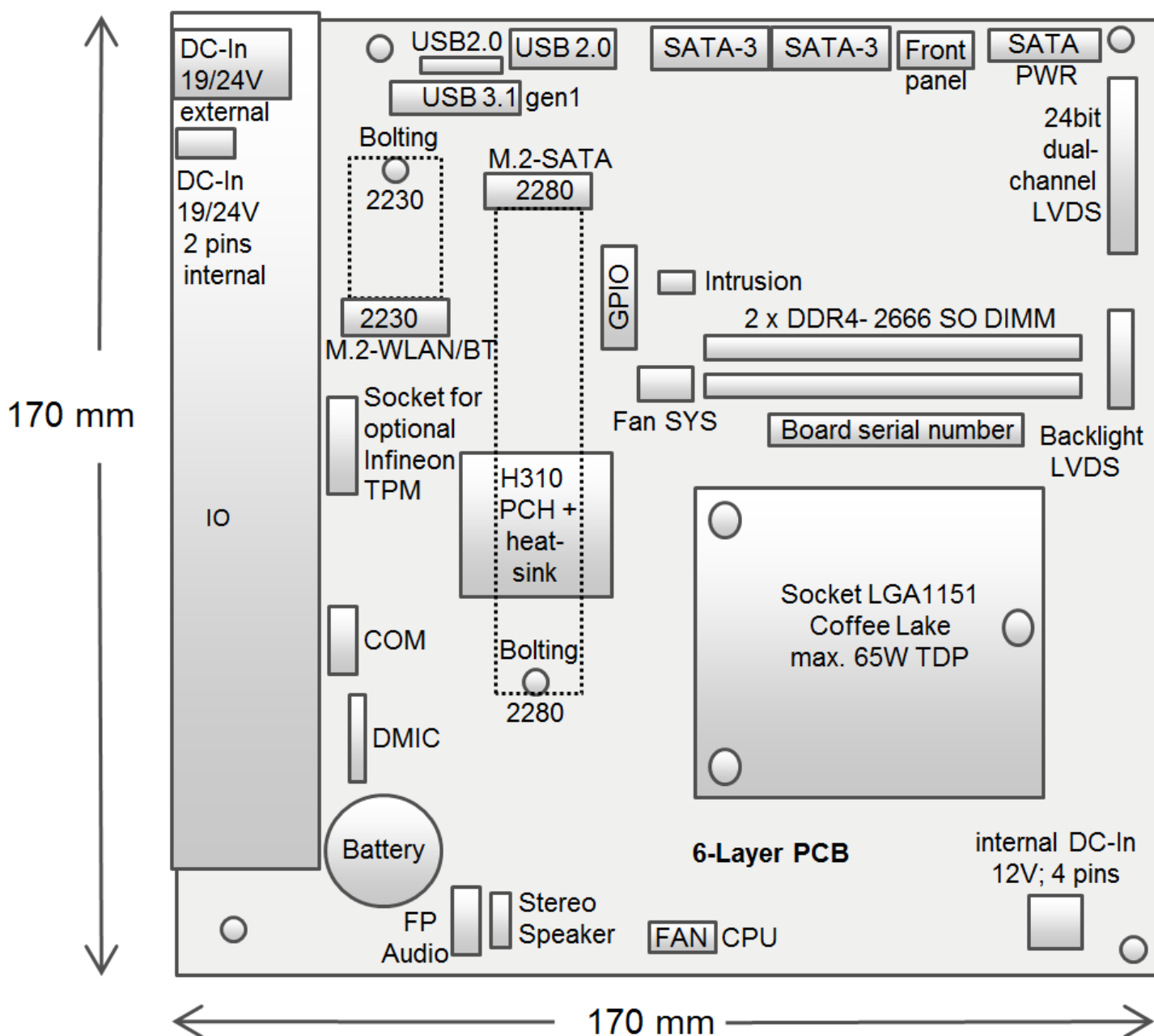
<sup>2</sup> Optional BIOS feature, License required

<sup>3</sup> Forced cooling required, see technical documentation for details

External Connectors



Connector / Socket Diagram



## Accessories

	OEM Order Code	
Active Heatsink + Backplate (35W TDP)	S26361-F5000-C11	
COM1 Extension Cable (120mm, w/o slot bracket)	S26361-F5000-K7	
COM1 Extension Cable (400mm, fullsize slot bracket)	S26361-F5000-K10	
Diplayport to DVI Converter Cable (400mm)	S26361-F5000-A3	

## Further industrial products offered by Fujitsu

- Connectors
- KVM Switches
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- Thermal Printers
- Wireless Modules



24 Volt Kiosk Printers



Multi-Input Touch Panels

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2132 WV Hoofddorp  
Netherlands

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### Products

[www.fujitsu.com/global/products/](http://www.fujitsu.com/global/products/)

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- Storage systems: ETERNUS
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- Software
- Network

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[www.fujitsu.com/global/about/environment/](http://www.fujitsu.com/global/about/environment/)

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## More information

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