

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® 8th generation Core™ i3 / i5 / i7 Processors



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

Chipset:

Intel® H310 Express Chipset

Processors:

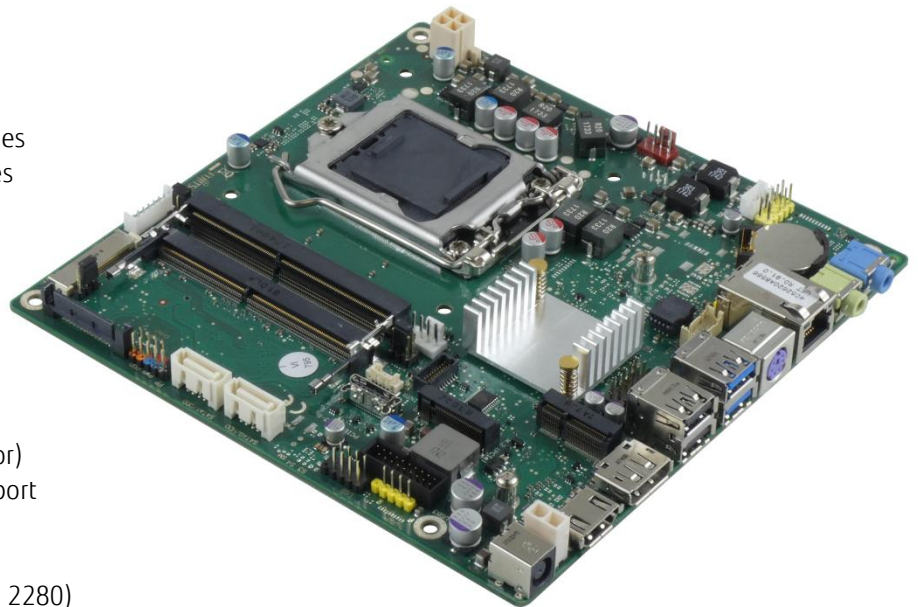
Intel® Core™ i7 / i5 / i3 – (8th gen.) processor series
Intel® Pentium® / Intel® Celeron® processor series
Socket LGA1151 – up to 65W TDP

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

Board Size	Thin Mini-ITX: 6.7" x 6.7" (170 x 170 mm)
Chipset	Intel® H310 Express Chipset
Memory	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
Processor	Intel® Core™ i7 / i5 / i3 - (8 th 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)
Power Specification	External DC Input 19-24V Internal DC Input 12V or 19-24V Onboard high-efficiency CPU Core Voltage Regulator
Power Supply Requirements	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 ¹⁾	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 ¹⁾
Internal (2 pin) connector	19-24V	0A	+10% / -15%	200µF	max. 8A max. 130W ¹⁾
Internal (4 pin) connector	+12V	0A	± 5 %	1.500µF	max. 12A max. 144W

¹⁾ 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!

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 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 No legacy OS support, no MBR installation (UEFI only due to Intel restrictions)
Security Features	Recovery BIOS, System and BIOS Password, Boot Sequence Control, Serial- / USB- Port Access Protection, Boot Sector Virus Warning, Write Protection for Flash BIOS, EraseDisk ¹ (optional BIOS Feature), Intel integrated TPM V2.0, optional Infineon TPM module (TCG compliant, socket prepared)

¹ License required!

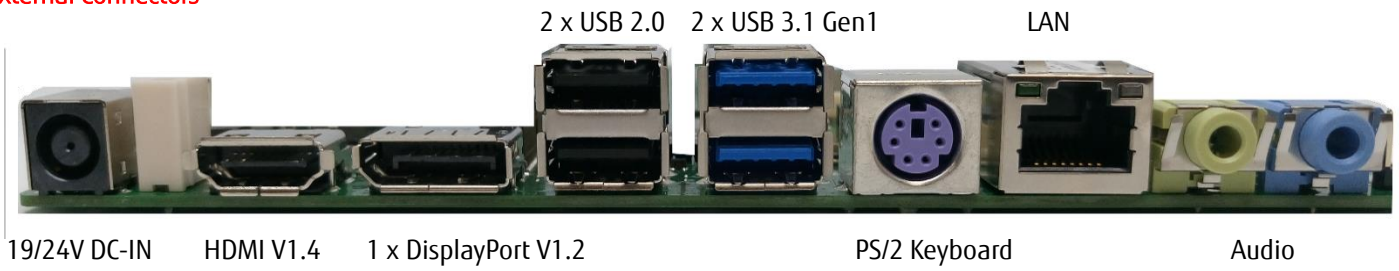
Special Features	Silent Fan	Independent temperature related processor fan and system fan supervision	
	System Guard	View Silent Fan features	
	Recovery BIOS	Restores a corrupted BIOS	
	Desk Update	Simple driver update with Driver & Utilities DVD	
	Multi Boot	Comfortable boot from any boot device	
	HDD 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		
Operating Systems	OS	"Runnable"	"Tested/Released by Fujitsu"
	MS Windows 7	--	--
	MS Windows 10-64 RS3	X	X
	MS Windows 10-64 RS4	X	X
	Linux-64	X	--
Important Note: Legacy OS / MBR installation (DOS, MS Windows 7, ...) is not supported due to Intel restrictions			
Graphics	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		
Audio	Realtek ALC255, 5.1-channel, High Definition Audio Codec, 2W@40ohm stereo speaker support		
LVDS	LVDS Controller Realtek RTD2136R (DisplayPort to LVDS converter)		
LAN	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		
SATA Ports	2 x Serial ATA III 600 Interface (up to 6Gbit/s), NCQ, AHCI		
M.2 Sockets	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		
Designed for 24 / 7 use	Longlife components for 24 / 7 continuous operation @ 50°C Revision control & Extended Lifecycle (min. 3 years)		

Features D3674-B	Chipset	iH310
	Board Size	Thin Mini-ITX
	DP V1.2 / 2 nd 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	✓ / ✓ / -
Special Features D3674-B	Silent Fan / System Guard / Silent Drives	✓ / ✓ / -
	Recovery BIOS / Desk Update / Multi Boot	✓ / ✓ / ✓
	HDD Password / EraseDisk ² / 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) ³	10°C – 50°C
Internal Connectors D3674-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
External Connectors D3674-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

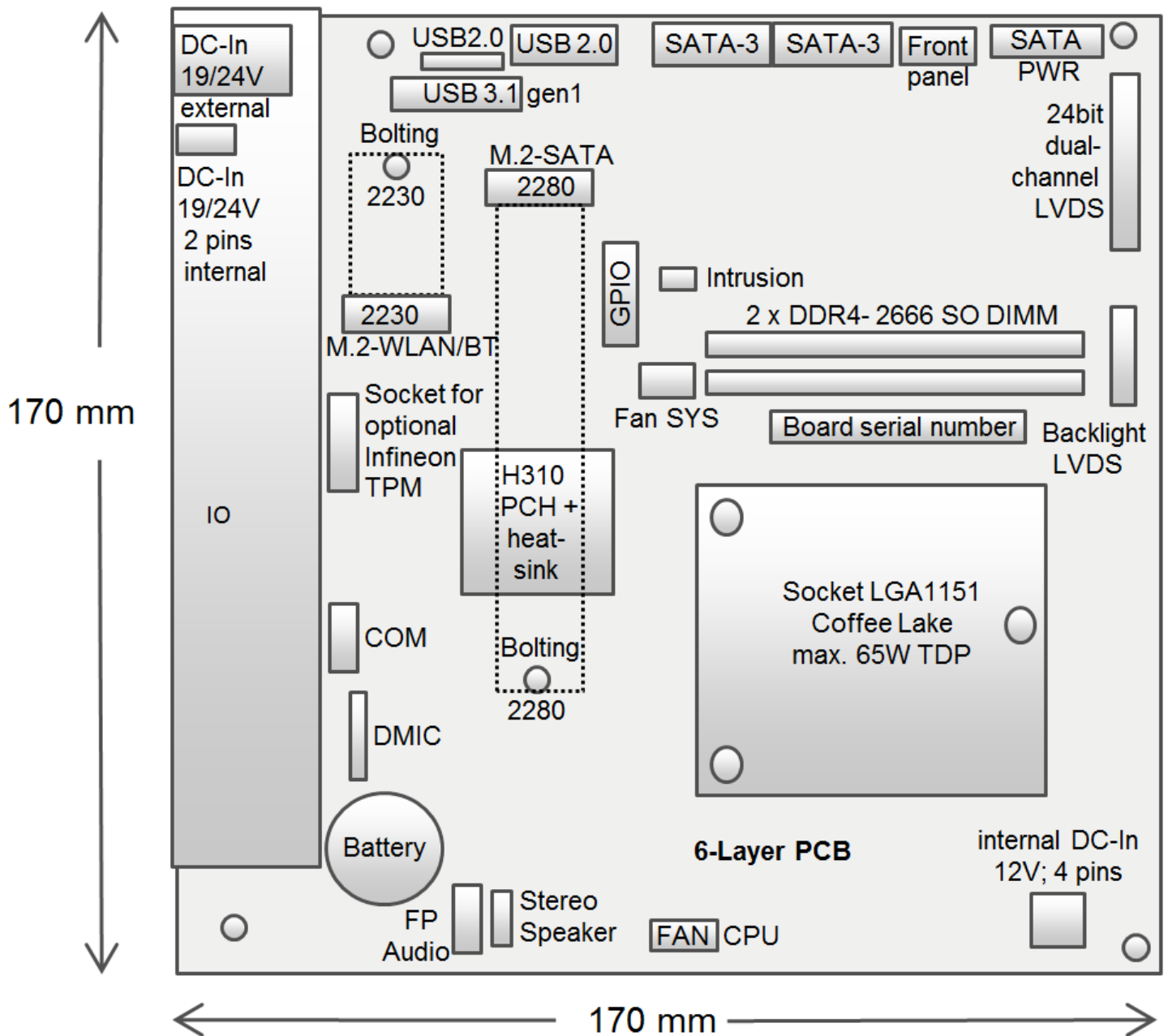
² Optional BIOS feature, License required

³ 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

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- Wireless Modules



24 Volt Kiosk Printers



Multi-Input Touch Panels

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