

# Data Sheet

## FUJITSU Mainboard D3474-B Thin Mini-ITX

### Extended Lifecycle Series



Powered by the Intel® H110 Express Chipset supporting DDR4 2400 SDRAM Memory and 6<sup>th</sup> & 7<sup>th</sup> generation Intel® Core™ i3 / i5 / i7 Processors (Socket LGA1151)  
Designed for 24/7 continuous operation @ 50°C

#### Chipset:

Intel® H110 Express Chipset

#### Processors:

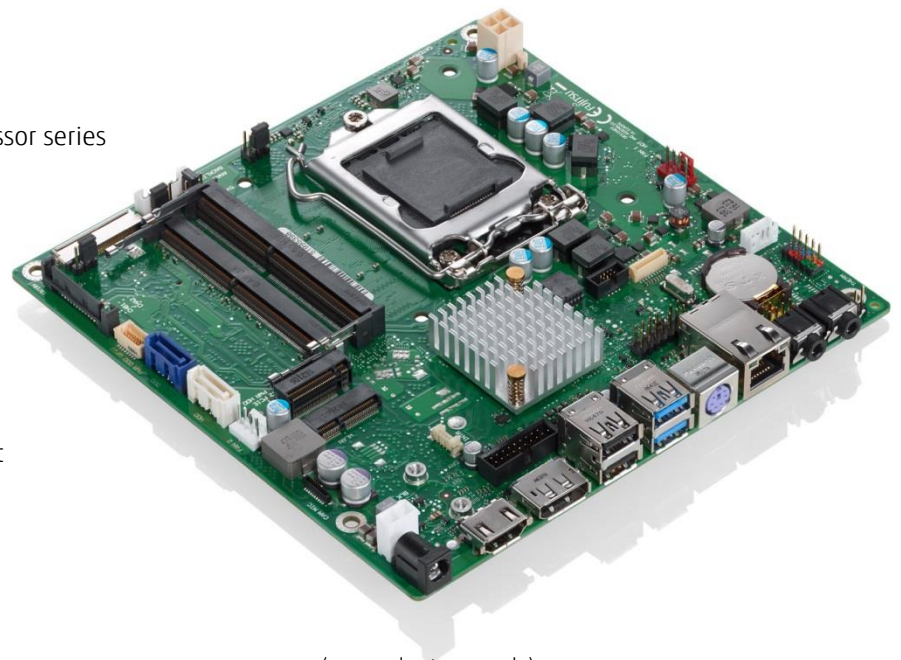
Intel® Core™ i7 / i5 / i3 – (6<sup>th</sup> gen. & 7<sup>th</sup> gen.) processor series  
Intel® Pentium® / Intel® Celeron® processor series  
Socket LGA1151 – up to 65W TDP

#### Memory:

DDR4 2400 SDRAM (SO-UDIMM)

#### Product Features:

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



(pre-production sample)



(planned)

(planned)



# Features and benefits

<b>Board Size</b>	Thin Mini-ITX: 6.7" x 6.7" (170 x 170 mm)
<b>Chipset</b>	Intel® H110 Express Chipset
<b>Memory</b>	2 x SO DIMM Socket (1.2V), max. 32GB, Dual Channel, DDR4 - 2400 (CL17) SDRAM, unbuffered, non-ECC Effective memory speed depends on installed processor
<b>Processor</b>	Intel® Core™ i7 / i5 / i3 - (6 <sup>th</sup> & 7 <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 CPU Core Voltage Regulator
<b>Power Supply Requirements</b>	for onboard components (worst case incl. processor & memory; w/o USB devices; w/o M.2, w/o SATA devices)

Source <sup>1)</sup>	Voltage	Min. PS Load	Max. Voltage Tolerance	Mainboard Capacitive Load	Max. Mainboard Current
Internal (2 pin) or external connector	19-24V	0A	+10% / -15%	200µF	5A / 7,6A <sup>1)</sup> 4A / 6A <sup>2)</sup>
Internal (4 pin) connector	+12V	0A	± 5 %	1.000µF	8A / 12A <sup>3)</sup>

1) Max. Cont. Current (@19V) = 5A; max. Surge Current = 6,3A (< 100sec) / 7,6A (< 10ms)

2) Max. Cont. Current (@24V) = 4A; max. Surge Current = 5A (< 100sec) / 6A (< 10ms)

3) Max. Cont. Current (@12V) = 8A; max. Surge Current = 10A (< 100sec) / 12A (< 10ms)

<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 (SATA-based M.2, AHCI) BIOS integrated HW Diagnostic Tool, Watchdog Support
<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 (optional BIOS Feature), Intel integrated TPM V2.0, optional Infineon TPM V1.2 module (socket prepared)

<b>Special Features</b>	Silent Fan LT	Independent temperature related processor fan and system 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	
	Always On	Reliable power-on whenever voltage is connected	
	Never Off	Option to prevent the system from being shut down	
	CSA / UL / FCC	cCSAus 60950-1 / FCC-B (planned)	
<b>Operating Systems</b>	<b>OS</b>	<b>"Runnable"</b>	<b>"Tested/Released by Fujitsu"</b>
	MS Windows XP	--	--
	MS Windows 7-32 <sup>1)</sup>	X	X
	MS Windows 7-64 <sup>1)</sup>	X	X
	MS Windows 8.1-64 <sup>1)</sup>	X	--
	MS Windows 10-64	X	X
	Linux-32	X	--
	Linux-64	X	--
	<i>1) Requires Skylake processor!</i>		
<b>Designed for 24 / 7 use</b>	Longlife components for 24 / 7 continuous operation @ 50°C Revision control & Extended Lifecycle (up to 3 years)		
<b>Graphics</b>	Intel® HD Graphics, 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>LAN</b>	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		
<b>Drives</b>	2 x Serial ATA III 600 Interface (up to 6GBit/s), NCQ, AHCI; 1 x M.2 Socket (2242/2260) Key M for SATA based M.2 modules, AHCI Boot support		
<b>WLAN / Bluetooth</b>	1 x M.2 Key E (WLAN / Bluetooth only!), mechanical support for 2230 Supports M.2 modules with PCIe x1 (Gen3) or USB 2.0 interface		

<b>Features</b> <b>D3474-B</b>	Chipset	iH110
	Board Size	Thin Mini-ITX
	VGA / DVI-I / DVI-D / DP V1.2 / 2 <sup>nd</sup> DP V1.2 / LVDS / eDP / HDMI 1.4	- / - / - / ✓ / - / ✓ / - / ✓ / ✓
	Buzzer / int. Speaker Support / 5.1 Multichannel Audio	- / ✓ / ✓ / ✓
	LAN Gbit / 100 Mbit / 10 Mbit / WoL / LAN Boot / M.2 2230 WLAN-BT	✓ / ✓ / ✓ / ✓ / ✓ / ✓ / ✓ / ✓
	iAMT 11.0 vPro / Intel Standard Manageability / DASH V1.1	- / - / -
	SATA / ATA / RAID / eSATA-Support / mSATA / M.2 SSD (SATA)	✓ / - / - / ✓ / ✓ / - / ✓ / ✓
	FireWire™ / USB 2.0 / USB 3.0	- / ✓ / ✓ / ✓
	FAN monitored & controlled PSU / CPU / AUX1 / AUX2	- / ✓ / ✓ / ✓ / -
	TEMP monitored CPU / onboard sensors / external sensor	✓ / ✓ / ✓ / -
<b>Special Features</b> <b>D3474-B</b>	Silent Fan / Silent Fan LT / System Guard / Silent Drives	- / ✓ / ✓ / ✓ / ✓
	Recovery BIOS / Desk Update / Multi Boot	✓ / ✓ / ✓ / ✓
	HDD Password / EraseDisk <sup>1</sup> / TPM V1.2 <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>	0°C – 50°C
	<b>Internal Connectors</b> <b>D3474-B</b>	SO DIMM Sockets (DDR4 2400)
SATA-600 / SATA-300 / mSATA / M.2 SSD / M.2 WLAN-BT		2 / - / - / 1 / 1 / 1
Frontpanel Audio (9-Pin, HD Audio)		1
USB 2.0 channels / USB 3.0 channels / USB Stick		2 / 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
Frontpanel (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>D3474-B</b>		VGA Sub D / DVI-I / DVI-D / DisplayPort V1.2 / HDMI V1.4
	Audio Mic. In / Line in / Line out (or driver configuration)	- / 1 / 1
	LAN (RJ-45)	1
	1x PS/2 Keyboard / Mouse <sup>4</sup>	✓
	USB 2.0 / USB 3.0	2 / 2
	DC-In connector (external input) 19-24V @ 5A max.	1

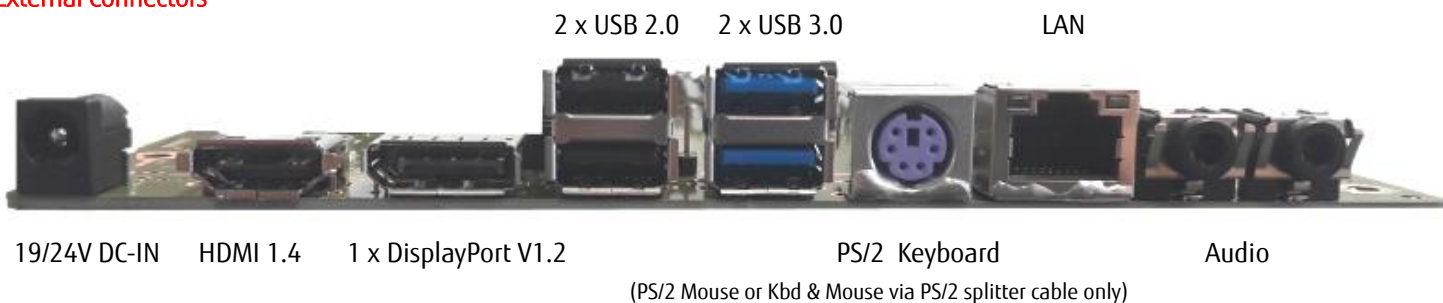
1 Optional BIOS feature, License required

2 Optional TMP V1.2 module (Infineon) possible

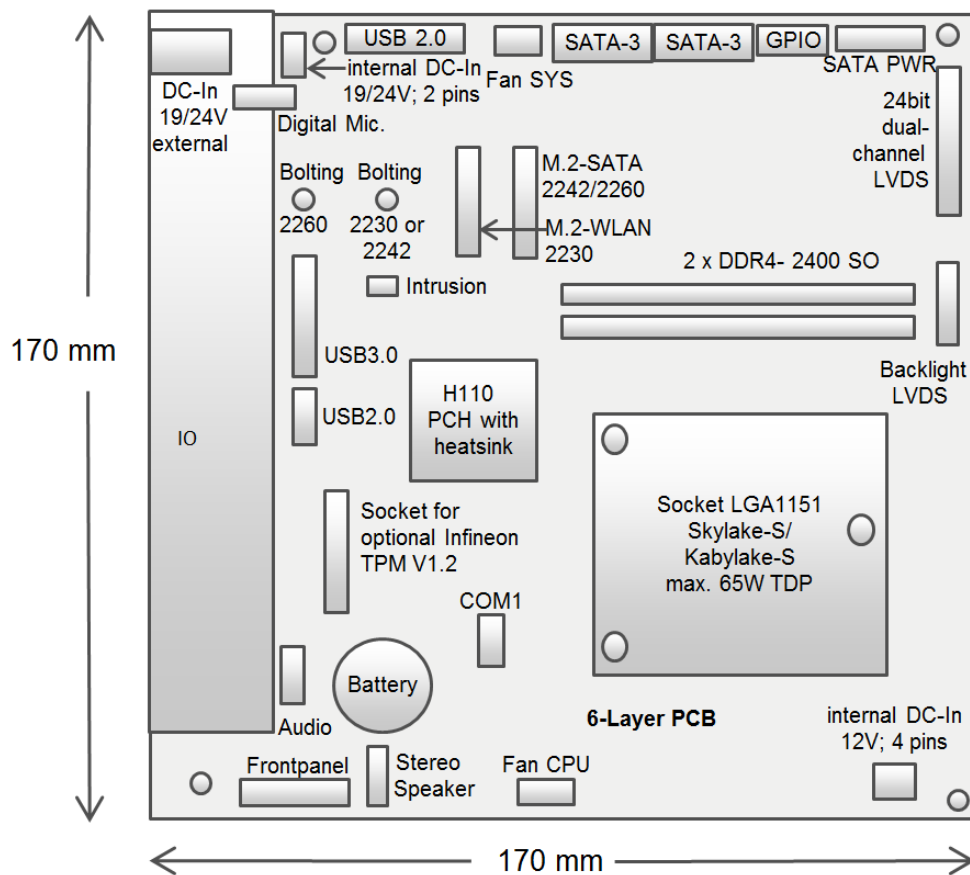
3 Forced cooling required, see technical documentation for details

4 PS/2 mouse or PS/2 mouse &amp; keyboard supported via PS/2 splitter cable only

**External Connectors**



**Connector / Socket Diagram**



**Accessories**

TPM V1.2 Module

D3127-A

S26361-F5000-R5



**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](http://emea.fujitsu.com/components)  
 Address: Diamantlaan 25  
 2132 WV Hoofddorp  
 Netherlands

# More information

## Fujitsu products, solutions & services

### Products

[www.fujitsu.com/global/products/](http://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, STYLISTIC, 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/](http://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/](http://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/](http://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: [oem-sales@ts.fujitsu.com](mailto:oem-sales@ts.fujitsu.com)

Website: <http://ts.fujitsu.com>  
2017-05-02

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](http://ts.fujitsu.com/terms_of_use.html)