

Data Sheet

FUJITSU Mainboard D3488-H

AT03 extended

Powered by the Intel® C624 chipset (former Lewisburg / SKL-EP), six channel DDR4 2667 R-DIMM & LR-DIMM (registered) memory and Intel® Xeon® scalable processors (SKL-EP; LGA3647 P0)

Chipset:

Intel® Lewisburg Chipset C624



Processors:

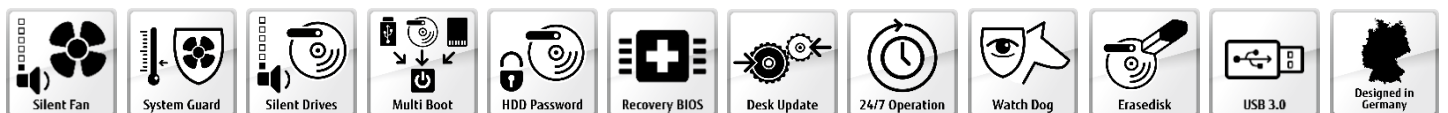
Up to two sockets for Intel® Xeon® processors LGA3647 P0 package
Intel QuickPath (QPI) interconnect, Bandwidth depends on CPU Cache

Memory:

6 channel DDR4 memory architecture
Up to 16 DDR4 memory sockets usable
Up to 1024 GB max. memory capacity
Non JEDEC standard DIMMS are not supported

Product Features:

x16 PCIe gen3 slots onboard
1x PCI connector
Audio Realtek ALC 671
External USB 3.1 gen1, USB 2.0 and internal USB 2.0 Type-A connector (for memory stick)
WOL supported (Magic-Packet support)
Mini-SAS HD (via cable option)
1x PCIe x4 for M.2 22110
Infineon TPM 2.0
10 Gbit Dual LAN option via Riser card (OCP (copper/fibre))



Features and benefits

Board Size	AT03 extended; 329 mm x 381mm (12,95" x 15")
Chipset	Intel Lewisburg Chipset C624
Memory	DDR4 2133 / 2400 / 2667, Single Rank/Dual Rank/Quad Rank Registered DIMMs, LR-DIMMs, ECC support, 6 DDR Channels per CPU, Up to 2 DDR modules per channel (2 sockets per ch. only for channels. A/D/G/K), 16 DIMM Connectors, Maximal main memory size 1024GB Effective memory speed depends on installed processor
Processors	Intel® Xeon® scalable processor Up to 2 CPU sockets (LGA3647), Intel QuickPath architecture between CPUs, integrated Memory Controller
Power Specification	Onboard voltage regulators support 160W power class (205W with accoustic limitation) The driver power connector which supplies all system drives (HDDs/ODDs) provides 12V and 5V The maximum currents are: 7A on 12V and 8 A on 5V

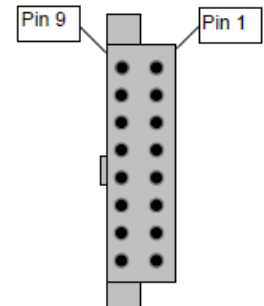
Power Supply Requirements

Power Supply Connector 1

16-Pin connector

Pin	Signal
9	+ 12V1
10	+ 12V1
11	+ 12V1
12	GND
13	GND
14	GND
15	Powergood (high asserted)
16	reserved

Pin	Signal
1	GND
2	GND
3	GND
4	+ 12V2
5	+ 12V2
6	+ 12V2
7	PS ON (low asserted)
8	+ 12V AUX

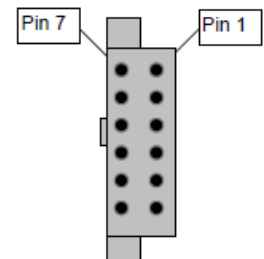


Power Supply Connector 2

12-Pin connector

Pin	Signal
7	+ 12V3
8	+ 12V3
9	+ 12V3
10	+ 12V4
11	+ 12V4
12	+ 12V4

Pin	Signal
1	GND
2	GND
3	GND
4	GND
5	GND
6	GND

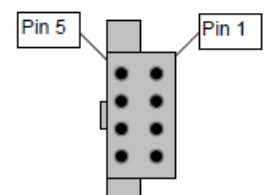


Drive Power Supply Connector

8-Pin connector

Pin	Signal
5	+ 12V1
6	GND
7	+ 5V
8	GND

Pin	Signal
1	+ 12V1
2	GND
3	+ 5V
4	GND



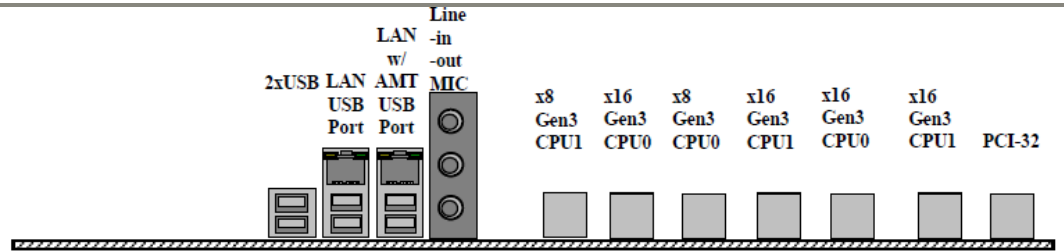
BIOS	<p>Please see BIOS specification for details → Spec page 21 The SPD EEPROM is write protected by BIOS</p>	
	<p>AMI Aptio 5.x (UEFI) BIOS modified and adapted by Fujitsu Technology Solutions; Recovery BIOS, SM-BIOS (DMI), BIOS and CPU Microcode Update, Quick Boot, Logo Boot, Quiet Boot, Plug & Play, 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 Carrier Board D3352-Ax (PCIe-based SSD modules, AHCI/NVME). BIOS integrated HW Diagnostic Tool</p>	
Security Features	<p>System and BIOS password, Hard disk password, Recovery BIOS support, Boot sequential control for each floppy and HDD drive, Serial access protection, Boot sector virus warning, Flash write protection against virus, SPD EEPROM write protection against virus</p>	
Audio	<p>Realtek ALC 671, Host based Audio with 2-channel HD Audio, Stereo Head-Phone Out (50mW at 32 Ω), Sound via internal system speaker, Internal connector Front panel, External connectors Stereo Microphone Input, Stereo Line Input, Stereo Line Output</p>	
LAN	<p>WakeOnLAN and Magic-Packet support, PXE support, Support for Jumbo-Frames, Intel i210 / I219 LM Network Controller</p>	
Drives (2x SATA)	<p>MiniSAS- Mini-SAS HD (via cable option) 1x PCIe x4 for M.2 22110</p>	
Special Features	<p>Recovery BIOS Desk Update Multi Boot HDD Password 24/7 Operation</p>	<p>Restores a corrupted BIOS Easy driver update with Drivers&Utilities DVD Comfortable boot from any boot device Access protection for disk drives Mainboard is designed for continuous operation</p>

Features	Board Size / Chipset	AT03 extended / Intel Lewisburg Chipset
D3488-A	Stereo Audio / 5.1 Multichannel Audio	✓ / ✓
	Int. Speaker Support	✓
	LAN 1000Mbit / 100 Mbit / 10 Mbit / WakeOnLAN	✓ / ✓ / ✓ / ✓
	DASH 1.1 / AoL / BootP / AMT 7.0 / vPro	✓ / - / - / ✓ / -
	SATA / ATA / RAID / eSATA Support / M.2 (PCIe x4)	✓ / - / ✓ / - / ✓
	USB 2.0 / USB 3.1 Gen1 / USB 3.1 Gen2 Type C	✓ / ✓ / -
	FAN controlled&monitored PSU ¹ / CPU / AUX1 / AUX2 / AUX3	✓ / ✓ / ✓ / ✓ / ✓ / ✓
	TEMP monitored CPU / Onboard Sensors	✓ / ✓
Special Features D3488-A	Recovery BIOS / Desk Update / Multi Boot	✓ / ✓ / ✓
	HDD Password / USB Security / EraseDisk ²	✓ / ✓ / ✓
	Logo Boot Option / Intel On Screen Branding	✓ / ✓
	Operating Mode 24-7	✓
Internal Connectors D3488-A	DIMM Connectors	16
	PCI Express x16: Gen3	✓
	PCI Express x8: Gen3	✓
	SATA (600) / SATA (300) / M.2 SSD	10 / 0 / 0
	S/PDIF / FireWire™ / Audio Input / High Definition Audio Front Panel Connector	- / - / - / 1
	USB 2.0 channels / USB 3.1 Gen1 channels / USB 3.1 Gen2 channels / socket for USB2.0 stick / USB 2.0 via Mini-PCIe socket	4 / 2 / 0 / 1 / 0
	Serial (FIFO, 16550 compatible) / SMBus (Temperature)	- / -
	FAN PSU ¹ / CPU / AUX1 / AUX2 / AUX3 / AUX4	1 / 1 / 1 / 1 / 1 / 1
	Intrusion (Case Open)	1
	Parallel (EPP/ECP) Pin Connector	-
Power 16 Pin / 12 Pin (additional 12V Supply) / 8 Pin	1 / 1 / 1	
External Connectors D3488-A	Graphics	-
	Audio Line in/ Line-or Headphone out / Mic. in	1 / 1 / 1
	LAN0 / LAN1/ PS/2 Mouse / PS/2 Keyboard	1 / 1 / - / -
	FireWire™ / Serial (RS232) / Parallel (EPP/ECP)	- / - / -
	USB 2.0 / USB 3.1 Gen1 / USB 3.1 Gen2 Type A / USB 3.1 Gen2 Type C	- / 6 / - / -

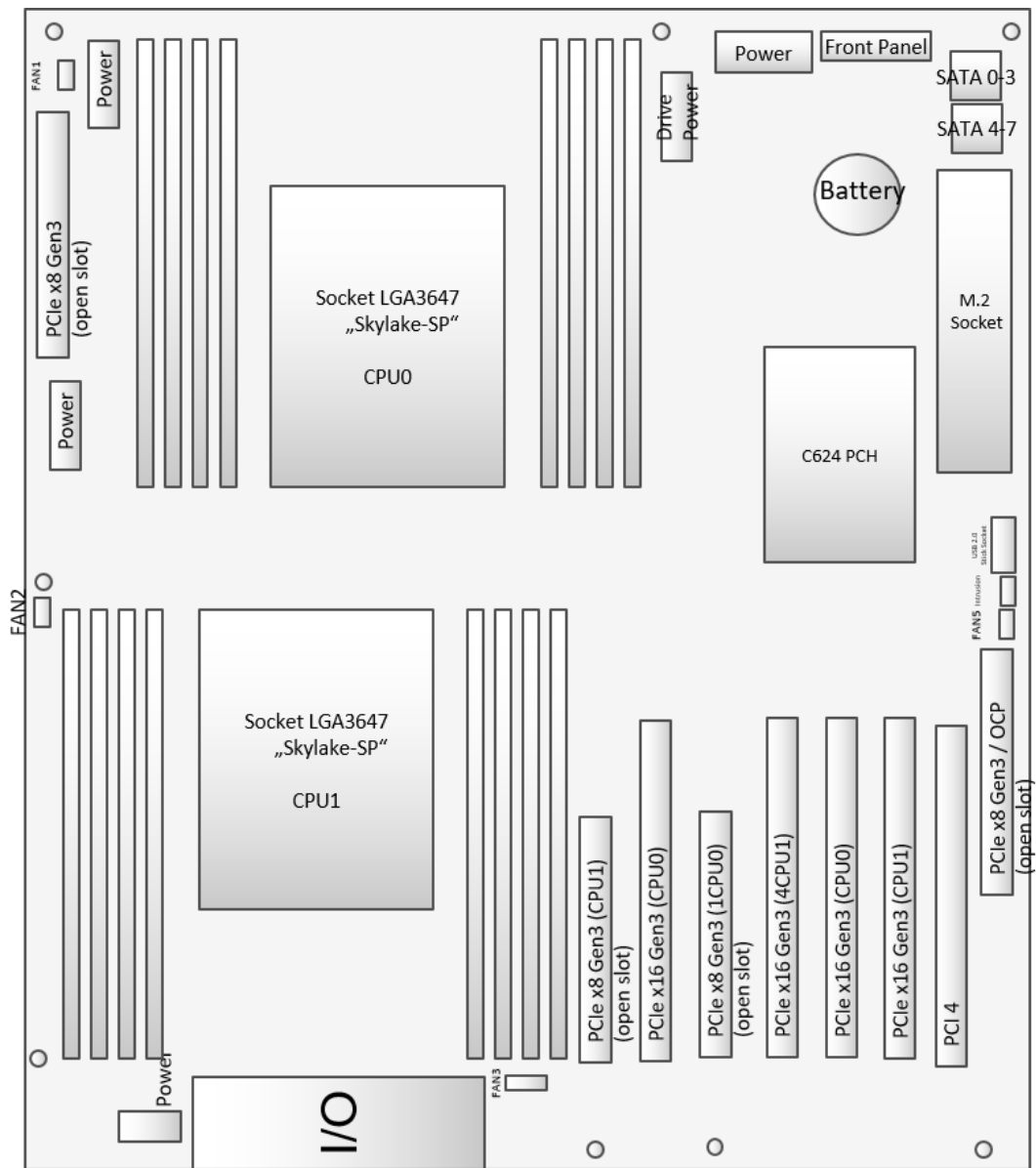
¹ Not supported by standard Power Supplies

² Optional BIOS Feature (License required)

External Connectors



Connector / Socket Diagram



Accessories

M.2 Carrier Board (2 x M.2)

D3352-A2

S26361-F5000-M2



M.2 Carrier Board (1 x M.2)

D3352-A1

S26361-F5000-M1



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, 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/

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: oem-sales@ts.fujitsu.com

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

2018-12-18

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