Data Sheet
FUJITSU Mainboard D3598-B ATX
Extended Lifecycle Series
-preliminary-

Available from
Q4/2017

Extended Lifecycle
31+
Series

Powered by the Intel® C422 Workstation chipset (BasinFalls), quad channel DDR4 2666
R-DIMM & LR-DIMM memory and Intel® Xeon® processors (SKL-W; LGA2066)
Designed & approved for 24/7 continuous operation

Chipset:
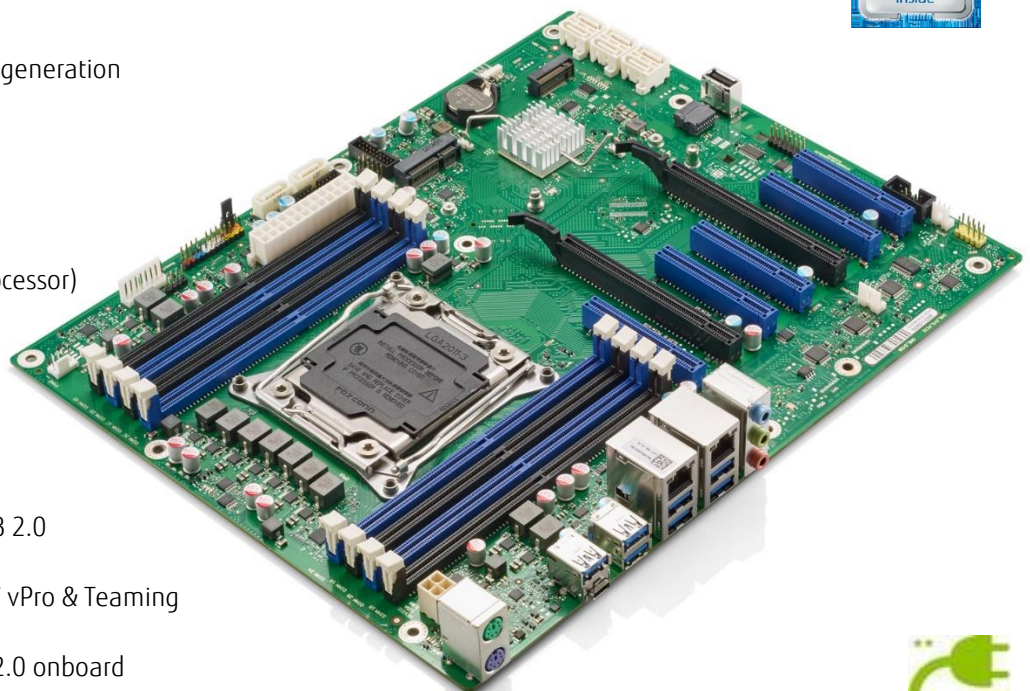Intel® C422 Workstation Chipset

Processors:
Intel® Xeon® Processor Skylake-W
Intel® Omni-Path Architecture 14nm generation
(up to 140W TDP)

Memory:
DDR4 2666 SDRAM (quad channel)
RDIMM & LRDIMM,
(memory type/speed depends on processor)
Up to 512GB memory

Product Features:
Mini-PCIe socket incl. USB
7 x PCIe generation 3 onboard
5.1 multichannel audio onboard
USB 3.1 Gen2, USB 3.1 Gen1 and USB 2.0
USB 3.1 Gen2 Type C
Dual Intel GbE LAN supporting iAMT / vPro & Teaming
8 x Serial ATA III incl. RAID onboard
Trusted Platform Modul (Infineon) V2.0 onboard
BIOS-POST/-Boot & OS - HW Watchdog onboard
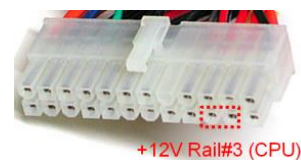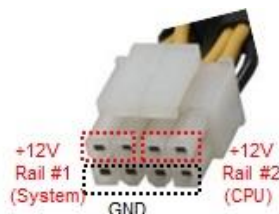M.2 SSD 2260/2280 socket (PCIe, NVMe)

intel XEON inside™

Green IT

Windows10 Compatible

Compatible with Windows®7

PCI EXPRESS™

SERIAL ATA

intel inside™ CHIPSET

| Silent Fan | System Guard | Silent Drives | Multi Boot | HDD Password | Recovery BIOS | Desk Update | 24/7 Operation | Watch Dog | Erasedisk | USB 3.0 | Designed in Germany |

Features and benefits

Board Size	ATX: 12" x 9.6" (305 x 244 mm)
Chipset	Intel® "Basin Falls" C422 Workstation chipset
Memory	8 DIMM Sockets DDR4, max. 512GB, Single / Dual / Triple / Quad Channel, 2666MHz (1DPC) / 2133, 2400, 2666MHz (2DPC), single- / dual- / quad-rank RDIMM & LRDIMM, Supports ECC RDIMM & LRDIMM and non-ECC RDIMM & LRDIMM, 1.2V/2.5V, 288-pin, ECC Effective memory speed depends on installed processor
Processors	Intel® Xeon® processor Socket R4 (LGA2066), max. 140W TDP, integrated Memory Controller (For details on supported processors please refer to our website)
Power Specification	24 Pin Power Connector + 8 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

Source	Voltage	Min. PS Load	Max. Voltage Tolerance	Mainboard Capacitive Load	Mainboard Max. Current (continuous)
Main Power Supply	+ 12 V_{CPU} (Rail#1)	0.5A [A)]	± 5 %	1.000µF	~16A [A)]
	+ 12 V_{CPU} (Rail#3)			1.000µF	
	+ 12 V_{Sys} (Rail#2)	0.3A	± 5 %	1.000µF	~19A [B)]
	- 12V	0A	± 10 %	--	--
	+ 5V	0.2A	± 5 %	2.200µF	~ 25A [B)]
	+ 3.3V	0.5A	± 5 %	2.200µF	~ 21A [B)]
Aux	+ 5Vaux	0A	+5 % / -3%	2.200µF	~ 2A

A) Combined load for Rail1 & Rail3. Note: Processor peak current = 32A (<250ms)!
B) Depends on system configuration (Main focus: 12V/3.3V: PCIe Slots; 5V: Memory/USB)

Note: **(further required rails 5V, 3.3V etc. not shown here)**
+12V rails: Each +12V/GND PSU pin must support up to 10A continuous current for full system configuration. Single-rail 12V supply instead of three separate 12V rails is possible. See TechNotes document (FTP) for further details.

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 Carrier Board D3352-A (PCIe-based SSD modules, AHCI/NVME).BIOS integrated HW Diagnostic Tool
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 (optional BIOS Feature), Infineon Trusted Platform Module (TPM) V2.0-SLB9665.
Audio	Realtek ALC671, 5.1 Multichannel, High Definition Audio
LAN	Intel i219LM / Intel i210 Ethernet Controller with 10/100/1000 MBit/s, iAMT / vPro
	Wake-on-LAN (WoL) by interesting Packets, Link Status Change and Magic Packet™, PXE Support, BIOS MAC Address Display, Teaming Support
Drives	8 x SATA III 600 Interfaces (up to 6GBit/s, NCQ); AHCI; RAID.
	1 x M.2 Socket (2260/2280) for PCIe (4 lanes) based M.2 modules, AHCI / NVME Boot support

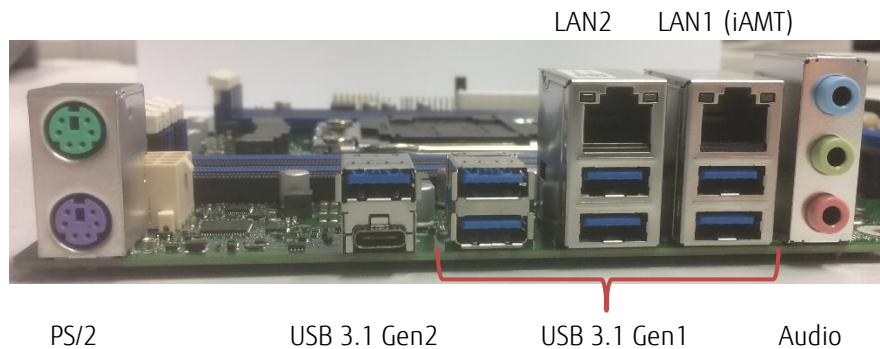| Special Features		
	Silent Fan	Independent temperature related processor fan and system fan supervision and control
	System Guard	View and adjust Silent Fan features
	Silent Drives	Noise reduction for optical and hard disk drives
	Recovery BIOS	Restores a corrupted BIOS
	Desk Update	Easy driver update with Drivers&Utilities DVD
	Multi Boot	Comfortable boot from any boot device
	HDD Password	Access protection for disk drives
	24/7 Operation	Mainboard is designed for continuous operation
	Boot Watchdog	Full supervison of BIOS POST and Boot sequence

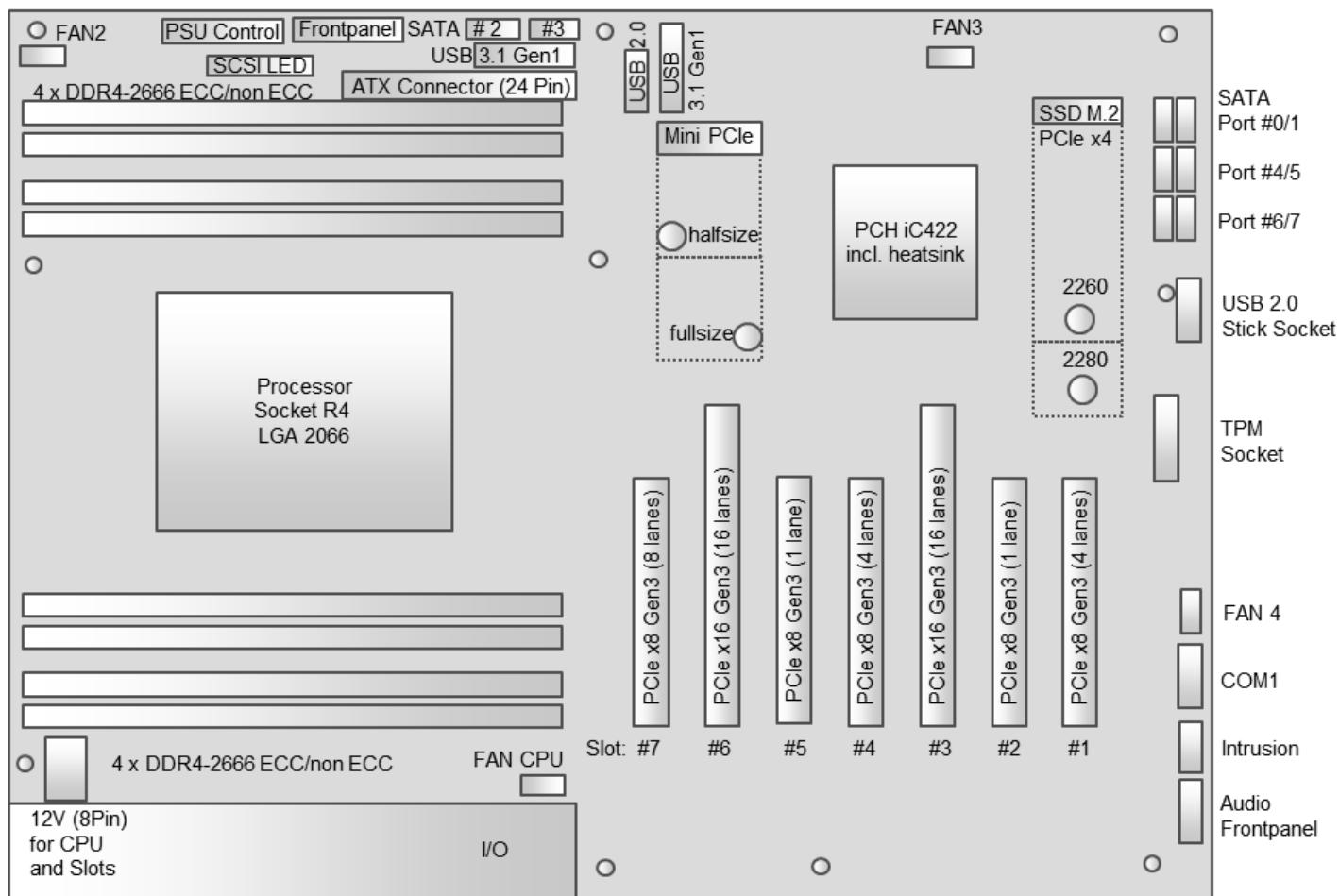| Features D3598-B	Board Size / Chipset	ATX / Intel C422
	Stereo Audio / 5.1 Multichannel Audio	- / ✓
	Buzzer / int. Speaker Support	- / ✓
	Dual LAN Gbit / 100 Mbit / 10 Mbit	✓ / ✓ / ✓
	DASH 1.1 / AoL / Boot / iAMT 11.6 / vPro	- / - / ✓ / ✓ / ✓
	SATA / ATA / RAID / eSATA Support / M.2 (PCIe x4)	✓ / - / ✓ / ✓ / ✓
	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 D3598-B	Silent Fan / Silent Fan LT / System Guard / Silent Drives	✓ / - / ✓ / ✓
	Recovery BIOS / Desk Update / Multi Boot	✓ / ✓ / ✓
	HDD Password / USB Security / EraseDisk[2]	✓ / ✓ / ✓
	Logo Boot Option / Intel On Screen Branding	✓ / ✓
	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)	10°C – 50°C
	Support for additional M.2 SSD modules (via M.2 carrier board D3352)	1 or 2 modules
Internal Connectors D3598-B	DIMM Sockets (DDR4 2666MHz)	8
	PCI Express x16: 16lanes-gen3	2
	PCI Express x8: 8 lanes-gen3 / 4 lanes-gen3 / 1 lane-gen3	1 / 2 / 2
	SATA (600) / SATA (300) / M.2 SSD	8 / 0 / 1
	S/PDIF / FireWire™ / Audio Input / Front Panel HD Audio (9-Pin)	- / - / - / 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	2 / 4 / 0 / 1 / 1
	Serial (FIFO, 16550 compatible) / SMBus (Temperature)	1 / -
	FAN PSU[1] / CPU / AUX1 / AUX2 / AUX3	1 / 1 / 1 / 1 / 1
	Intrusion (Case Open)	1
	Parallel (EPP/ECP) Pin Connector	-
	Power 24 Pin (BTX) / 8 Pin (additional 12V Supply)	1 / 1
External Connectors D3598-B	Graphics	-
	Audio Mic. In / Line in / Line out	1 / 1 / 1
	LAN (RJ-45) / PS/2 Mouse / PS/2 Keyboard	2 / 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 / 1

1 Not supported by standard Power Supplies
2 Optional BIOS Feature (License required)

External Connectors

LAN2   LAN1 (iAMT)

PS/2   USB 3.1 Gen2   USB 3.1 Gen1   Audio

Connector / Socket Diagram

preliminary layout!

Accessories

Adapter Board PCIe to M.2 Wi-Fi modules	D3436-S	S26361-F5000-M3	
Serial Port Cable "ATX Slotbracket"		S26361-F5000-K005	
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	

Further industrial products offered by Fujitsu

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- Wireless Modules

24 Volt Kiosk Printers   *Multi-Input Touch Panels*

Contact:

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             Netherlands

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