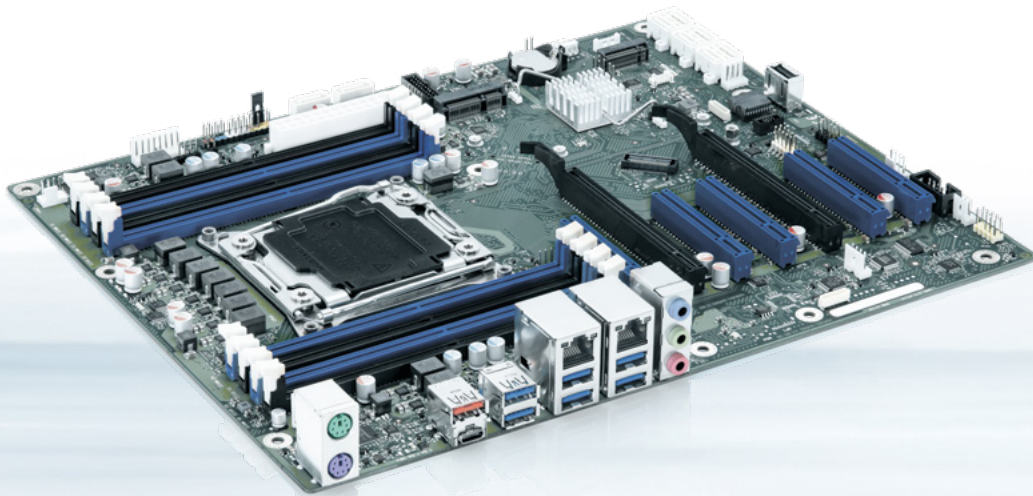


D3598-B ATX

Extended Lifecycle Series



Intel® C422 Workstation chipset and Intel® Xeon® processors

- ▶ 2x PCIe x16
- ▶ Intel® VROC Support
- ▶ Dual LAN & Mini-PCIe
- ▶ HW Watchdog
- ▶ USB 3.1 Gen2 Type C

POSSIBILITIES START HERE



D3598-B ATX

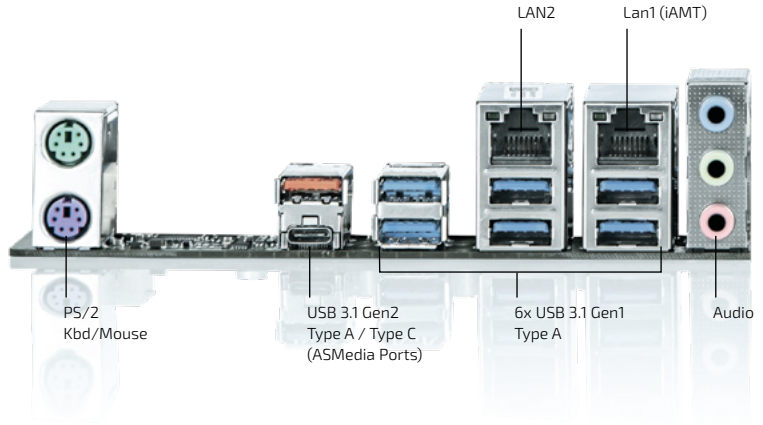
Extended Lifecycle Series

The Extended Lifecycle Motherboard D3598-B ATX is the right choice for any demanding applications and needs. Featured by Intel® C422 Chipset, the D3598-B supports the Intel® Xeon® processors based on LGA2066. The perfect fit for any workstation and high performance computing will be realized with 7 PCIe connectors, Dual Intel® GbE

LAN, Mini-PCIe and M.2 onboard capability as well as M.2 Riser to support two additional M.2 in RAID mode. The D3598-B fulfill the level of semi-industrial needs with 24/7 continuous operation up to 50 °C ambient temperature under heavy load (100 %) and prolonged lifecycle for min. 3 years.

▶ PRODUCT HIGHLIGHTS

- ▶ Intel® Xeon® processor W21xx/W22xx
- ▶ DDR4 2666 SDRAM Memory, max. 512 GByte
- ▶ Mini-PCIe socket incl. USB
- ▶ 7x 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
- ▶ 8x Serial ATA III incl. RAID onboard
- ▶ Trusted Platform Modul (Infineon) V2.0 onboard
- ▶ BIOS-POST/-Boot & OS - HW Watchdog onboard
- ▶ M.2 SSD 2280 socket (PCIe, for NVMe modules)
- ▶ Socket for optional Intel® VROC HW License Key (NVMe SSD RAID)



▶ TECHNICAL INFORMATION

| | | |
|--------------------------------|------------------------|--|
| SYSTEM | PROCESSOR | Intel® Xeon® processor W21xx/22xx Socket R4 (LGA2066), max. 165 W TDP, integrated Memory Controller (For details on supported processors please refer to our website) |
| | CHIPSET | Intel® C422 Workstation chipset |
| | MEMORY | 8 DIMM Sockets DDR4, max. 512 GByte, up to 4 channels Single-/dual- rank RDIMM or quad-rank LRDIMM DDR4 2133/2400/2666/2933 1.2 V, 288-pin, ECC Effective memory speed depends on installed processor |
| VIDEO | GRAPHICS | SLI-Certification for Nvidia Quadro cards as of driver version 391.03 WHQL |
| AUDIO | AUDIO CODEC | Realtek ALC671 |
| | AUDIO INTERFACE | 5.1 Multichannel, High Definition Audio |
| NETWORK CONNECTION | ETHERNET | 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 |
| PERIPHERAL CONNECTION | USB | 2x USB 2.0 (by header), 6x USB 3.1 Gen1, 4x USB 3.1 Gen1 by header, 2x USB 3.1 Gen2 (ASMedia ASM1142) |
| | SERIAL PORT | 1x RS232 (by header) |
| STORAGE & EXPANSION | SATA | 8x SATA III 600 Interfaces (up to 6Gbit/s, NCQ); AHCI; RAID 0/1/10 |
| | PCIe/PCI SLOTS | PCIe x16: 2x 16 Lanes Gen3 PCIe x8: 1x 8 Lanes, Gen3; 2x 4 Lanes, Gen3; 2x 1 Lane, Gen3 |
| POWER | CONNECTOR | 24 Pin Power Connector + 8 Pin (12 V) ATX Power Connector required |
| | INPUT VOLTAGE | Support for Soft-Off Power Supplies; 12 V and 3.3 V Supply Voltage on PCIe Slots |
| FIRMWARE | 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. |
| | WATCHDOG | Full supervision of BIOS POST and Boot sequence |
| | REAL TIME CLOCK | Integrated |
| | TPM | Trusted Platform Module TPM V2.0 (Infineon SLB9670) |

TECHNICAL INFORMATION

| | | |
|-----------------------|------------------------------|---|
| SYSTEM CONTROL | FP HEADER | 1x Header for Reset button, HDD LED & External Speaker 1x Header for Power button, Power LED 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) V1.2-SLB9660 / V2.0-SLB9665. |
| | SECURITY | |
| SOFTWARE | OS SUPPORT | MS Windows 7-64, MS Windows 10-64, Linux-64 |
| MECHANICAL | DIMENSIONS (L x W) | ATX: 12" x 9.6" (305 x 244 mm) |
| ENVIRONMENTAL | OPERATION TEMPERATURE | 10 °C - 50 °C |
| CERTIFICATION | EMC & SAFETY | cTÜVus possible upon request, CE Class B, FCC-B verified |

POWER SUPPLY REQUIREMENTS

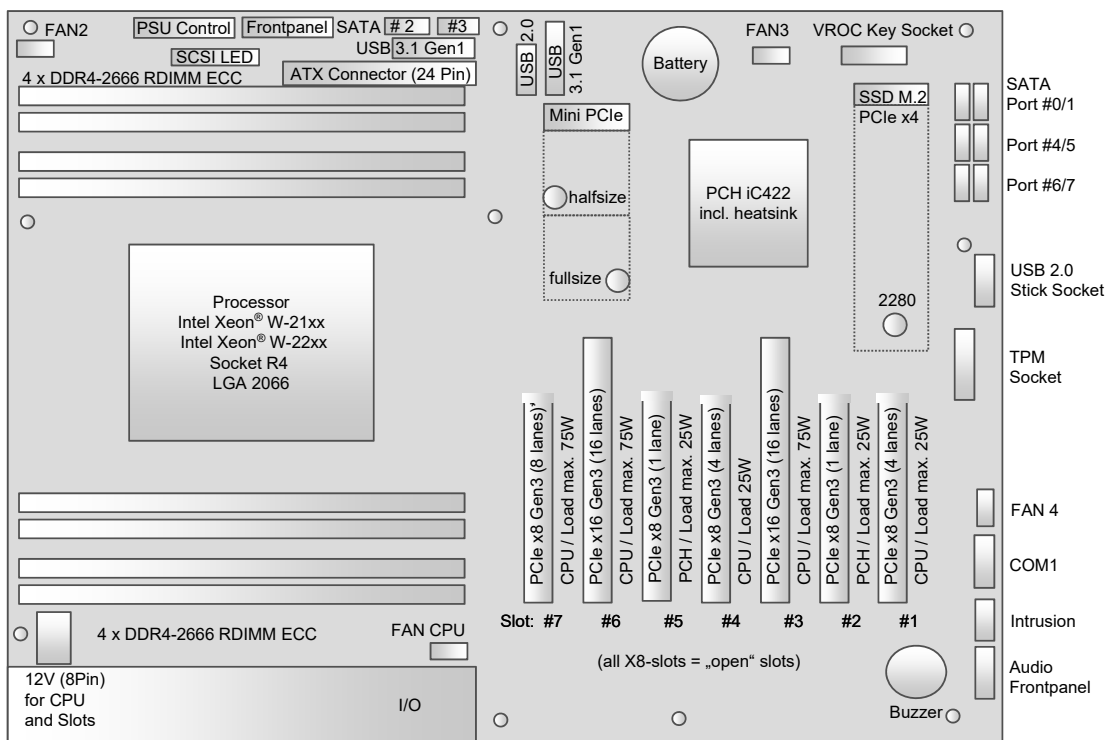
| SOURCE | VOLTAGE | MIN. PS LOAD | MAX. VOLTAGE TOLERANCE | MOTHERBOARD CAPACITIVE LOAD | MOTHERBOARD MAX. CURRENT (continuous) |
|-------------------|--------------------------------|--------------|------------------------|-----------------------------|---------------------------------------|
| Main Power Supply | + 12 V _{CPU} (Rail#2) | 0.05 A* | ± 5 % | 1.000 µF | ~45 A**, *** |
| | + 12 V _{CPU} (Rail#3) | 0.05 A* | ± 5 % | 1.000 µF | ~45 A**, *** |
| | + 12 V _{SYS} (Rail#1) | 0.05 A* | ± 5 % | 1.000 µF | ~45 A**, *** |
| | - 12 V | 0 A | - | - | - |
| | + 5 V | 0.05 A | ± 5 % | 2.200 µF | ~28 A*** |
| | + 3.3 V | 0.05 A | ± 5 % | 2.000 µF | ~20 A*** |
| Aux | + 5 Vaux | 0 A | + 5 % / - 3 % | 2.200 µF | ~2 A*** |

*) Combined load for all 12 V Rails.

**) Thereof processor peak current up to 32 A (<250 ms)

***) Depends on system configuration (Main focus: 12 V/3.3 V: PCIe Slots; 5 V: Memory/USB)

CONNECTOR / SOCKET DIAGRAM



*) 8 lanes with i9-109xxX processor only