

Fujitsu recommends Windows 11 Pro.

Data Sheet

Fujitsu Workstation CELSIUS C780

Unbeatable workstation performance from virtually anywhere!

Driven by precision engineering and innovation, Fujitsu's engineers maximized rack density in the datacenter while at the same time offering true workstation performance in only 1U. This allows customers in the automotive, aeronautic, broadcasting, energy as well as healthcare industry to benefit from faster time-to-market and reduced innovation cycles from the safety of the datacenter.



Manageability

Server based management in a rack workstation

- The integrated Remote Management Controller iRMC S5 allows comprehensive control, irrespective of the system status

Energy efficiency

Fujitsu's Cool-safe® Advanced Thermal Design technology for a broader range of ambient temperature

- Temperatures in the data center can now vary between 5 °C and 40 °C
- Benefits: cost savings and optimization potential

Best visualization - even virtualized

Meeting your demands as a 1:1 remote workstation

- Support of up to two high-end graphic cards (single width) or one ultra-high-end graphic card (double width)
- Up to 128 GB DDR4 (2666 MHz) memory

Storage Flexibility

Comprehensive choice of storage solutions

- Fujitsu PCIe SSD: Choice of on-board or PCIe card solution for maximum I/O performance
- SATA SSD: High-speed SATA SSDs



Components

| | |
|-----------------------------|---|
| Processor | Intel® Xeon® processor E-2274G (4 Cores / 8 Threads, 4.00 GHz, up to 4.9 GHz, 8 MB) |
| | Intel® Xeon® processor E-2224 (4 Cores / 4 Threads, 3.40 GHz, up to 4.6 GHz, 8 MB) |
| | Intel® Core™ i9-9900 processor (8 Cores / 16 Threads, 3.10 GHz, up to 5.0 GHz, 16 GB, Intel® UHD Graphics 630) |
| | Intel® Core™ i9-9900K processor (8 Cores / 16 Threads, 3.60 GHz, up to 5.0 GHz, 16 GB, Intel® UHD Graphics 630) |
| | Intel® Core™ i5-9500 processor (6 Cores / 6 Threads, 3.00 GHz, up to 4.4 GHz, 9 MB, Intel® UHD Graphics 630) * |
| | Intel® Core™ i3-9100 processor (4 Cores / 4 Threads, 3.60 GHz, up to 4.2 GHz, 6 MB, Intel® HD Graphics 630) * |
| | Intel® vPro® Platform with all Intel® Xeon® processors No Intel® vPro® technology with Intel® Core™ i5 and Core™ i7 processors *with Intel® Turbo Boost Technology 2.0 (clock speed and performance will vary depending on workload and other variables) Intel graphics not supported |
| Operating systems | |
| Operating system compatible | Linux Windows 11 Pro. Fujitsu recommends Windows 11 Pro for business. FREE Upgrade to Windows 11* *Upgrade timing may vary by device. Features and app availability may vary by region. Certain features require specific hardware (see aka.ms/windows11-spec). |
| Operating system notes | Certified for Red Hat® Enterprise Linux (pending) Certified for SUSE Enterprise Desktop (pending) Certified for SUSE Enterprise Server (pending) Certified for VMWare (pending) For some configurations third party drivers are currently not available or configuration restrictions may apply. Windows 11 requires for first device setup: - Internet connectivity - Microsoft account for Home editions or organizational account (e.g. ADD) for Pro editions After product end of life, Fujitsu continues to test and support new Windows releases for max. 5 years, depending on extension of hardware services through warranty top ups. For more details please visit our Fujitsu Service Statement under https://support.ts.fujitsu.com/IndexProdSupport.asp?lng=com&OpenTab= Certified for CITRIX (planned) |
| Memory modules | 8 GB (1 module(s) 8 GB) DDR4, unbuffered, ECC, 2,666 MT/s, UDIMM |
| | 8 GB (1 module(s) 8 GB) DDR4, unbuffered, non-ECC, 2,666 MT/s, UDIMM |
| | 16 GB (1 module(s) 16 GB) DDR4, unbuffered, ECC, 2,666 MT/s, UDIMM |
| | 16 GB (1 module(s) 16 GB) DDR4, unbuffered, non-ECC, 2,666 MT/s, UDIMM |
| | 32 GB (1 module(s) 32 GB) DDR4, unbuffered, ECC, 2,666 MT/s, UDIMM |
| Graphics | High-end 3D: NVIDIA® RTX™ A4000, 16 GB, PCIe x16, 4 x DisplayPort |
| | Ultra-high-end 3D: NVIDIA® RTX™ A5000, 24 GB, PCIe x16, 4 x DisplayPort |
| | Midrange 3D: NVIDIA® RTX™ A2000, 6 GB, PCIe x16, 4 x DisplayPort |
| Graphics | High-end 3D: NVIDIA® RTX™ A4500, 20 GB, PCIe x16, 4 x DisplayPort |
| | Ultra-high-end 3D: NVIDIA® Quadro® GV100, 32 GB, PCIe x16, 4 x DisplayPort |
| | Ultra-high-end 3D: NVIDIA® Quadro® RTX 6000, 24 GB, PCIe x16, 4 x DisplayPort, 1 x Virtual Link |
| Graphics | Ultra-high-end 3D: NVIDIA® Quadro® P6000, 24 GB, PCIe x16, 1 x Dual Link DVI-D, 4 x DisplayPort |
| | High-end 3D: NVIDIA® Quadro® RTX 4000, 8 GB, PCIe x16, 3 x DisplayPort, 1 x Virtual Link |
| | Midrange 3D: NVIDIA® Quadro® P2200, 5 GB, PCIe x16, 4 x DisplayPort |
| | Entry 3D: NVIDIA® T1000, 4 GB, PCIe x16, 4 x miniDP |
| | Entry 3D: NVIDIA® Quadro® P1000, 4 GB, PCIe x16, 4 x miniDP |
| | Others: DP to DVI-D (single link) Adapter Cable |
| | Others: MiniDP to DP Adapter Cable |

| | |
|--|--|
| Hard disk drives (internal) | SSD SATA III, 960 GB High Endurance, 1.5DWDP, 2.5-inch |
| | SSD PCIe, 2048 GB M.2 NVMe Highend module |
| | SSD PCIe, 1024 GB M.2 NVMe Highend module |
| | SSD PCIe, 512 GB M.2 NVMe Highend module |
| | SSD PCIe, 256 GB M.2 NVMe Highend module |
| | SSD PCIe, 2x 2048 GB M.2 NVMe Highend card |
| | SSD PCIe, 2x 1024 GB M.2 NVMe Highend card |
| | SSD PCIe, 2x 512 GB M.2 NVMe Highend card |
| | SSD PCIe, 1x 2048 GB M.2 NVMe Highend card |
| | SSD PCIe, 1x1024 GB M.2 NVMe Highend card |
| | SSD PCIe, 1x 512 GB M.2 NVMe Highend card |
| | SSD PCIe, 1024 GB M.2 NVMe module, SED |
| | SSD PCIe, 512 GB M.2 NVMe module, SED |
| | SSD PCIe, 256 GB M.2 NVMe module, SED |
| | HDD SATA III, 7,200 rpm, 2,000 GB, 2.5-inch, business critical |
| HDD SATA III, 7,200 rpm, 1,000 GB, 2.5-inch, business critical | |
| Hard disk notes | <p>One Gigabyte equals one billion bytes, when referring to hard disk drive capacity.</p> <p>24/7 ready (business critical HDDs required)</p> <p>Up to 20 GB of HDD space is reserved for system recovery</p> <p>SED (Self-Encrypting Drive)</p> <p>SSD (Solid State Disk)</p> |
| Drives (optional) | DVD Super Multi ultra slim (tray) |
| Interface add on cards/components (optional) | Serial Interface FH |
| | Dual 10 Gigabit Ethernet PCIe x8 |
| | PLAN EP X550-T2 2x10GBASE-T |
| | Dual serial card PCIe x1 |

Riser Cards

Base unit

| | |
|-------------------------------|---|
| Base unit | CELSIUS C780power (S26361-K1448-V325) |
| Mainboard | |
| Mainboard type | D3688-A1 |
| Formfactor | proprietary |
| Chipset | Intel® C246 |
| Processor socket | LGA 1151 |
| Processor quantity maximum | 1 |
| Supported capacity RAM (max.) | 128 GB |
| Memory slots | 4 DIMM (DDR4) ECC/non-ECC |
| Memory frequency | 2,666 MT/s |
| Memory notes | <p>Dual channel support</p> <p>For dual channel performance, 2 memory modules have to be ordered. Capacity per channel has to be the same. 2666 MHz may be clocked down to 2400 MHz depending on processor and memory configuration</p> |
| LAN | 2x Built-in 10/100/1,000 MBit/s Intel® I219LM and Intel® I210 |
| BIOS features | <p>BIOS Flash EPROM update by software</p> <p>Recovery BIOS</p> <p>Unified Extensible Firmware Interface (UEFI)</p> |

I/O controller on board

| | |
|----------------------|---|
| Serial ATA total | 5 |
| Controller functions | Serial ATA III (6 Gbit) NCQ AHCI RAID 0/1/5/10 |
| SATA RAID support | 0, 1, 10, 5 |

Interfaces

| | |
|------------------------------|-------------------------------|
| USB 2.0 total | 2 |
| USB 3.1 Gen1 (USB 3.0) total | 3 |
| USB front | 2x 2.0 |
| USB rear | 3x 3.0 |
| USB internal | 1x 3.0 |
| VGA | 1 (IRMC) |
| Serial (RS-232) | 1 (optional via slot bracket) |
| Ethernet (RJ-45) | 2 |

Input device / components

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|--------------------------|--|
| Input devices (optional) | Optical USB tilt wheel mouse Keyboard |
|--------------------------|--|

Drive bays

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|------------------------|--|
| Drive bays total | 5 |
| 2.5-inch internal bays | 4 |
| Drive bay notes | Up to 4x 2.5-inch HDDs/SSDs (cold plug) |
| M.2-2280 | 2 x on mainboard (for PCIe SSD modules, NVMe RAID 0/1 supported) |

Slots

| | |
|---------------------|--|
| PCI-Express 3.0 x4 | 1 x (174 mm / 6.85 inch) Full height |
| PCI-Express 3.0 x16 | 1 x (340 mm / 13.39 inch) Configurable as 2x PCI-Express 3.0 x8 Full height (single slot density) or 1x PCI-Express 3.0 x16 Full height (double slot density) via Riser card |

Electrical values

| | |
|------------------------------------|--|
| Power efficiency note | power supply efficiency (at 230V; 20% / 50% / 100% load) : 90% / 94% / 92% |
| Rated voltage range | 100 V - 240 V (AC Input) |
| Rated frequency range | 47 Hz - 63 Hz |
| Operating voltage range | 90 V - 264 V |
| Operating line frequency range | 47 Hz - 63 Hz |
| Max. output of single power supply | 800 W |
| Power supply output | 800 W |

Dimensions / Weight / Environmental

| | |
|-------------------------------|---|
| Dimensions (W x D x H) | 431 x 683 x 44.45 mm 16.97 x 26.89 x 1.75 inch |
| Operating position | Horizontal / vertical (I/O ports facing down) |
| Weight | approx. 13 kg |
| Weight (lbs) | approx. 28.7 lbs |
| Weight notes | Actual weight may vary depending on configuration |
| Operating ambient temperature | 10 – 35 °C (50 – 95 °F), 5 – 40 °C (41 – 104 °F) with Fujitsu's Cool-safe® Advanced Design technology |
| Operating relative humidity | 5 - 85 % (relative humidity) |

Compliance

| | |
|------------|-------------------|
| Product | CELSIUS C780power |
| Model | CR1U |
| Europe | CE Class A* |
| USA/Canada | FCC Class A |

Compliance

| | |
|-----------------|--|
| Global | RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronic equipment) Microsoft Operating Systems (HCT / HCL entry / WHQL) |
| China | CCC (planned) TPM 2.0 for China (optional) |
| Compliance link | https://sp.ts.fujitsu.com/sites/certificates |

Additional Software

| | |
|------------------------------------|---|
| Additional software (preinstalled) | Adobe® Reader® (pdf reader) McAfee® LiveSafe™ (provides award-winning antivirus protection for your PC and much more. 30 days trial pre-installed) Microsoft Office (1 month trial for new Microsoft® Office 365 customers. Buy Microsoft Office.) |
| Additional software (optional) | Recovery DVD for Windows® Drivers & Utilities DVD (DUDVD) Nero 10 Essentials XL (burning/backup/DVD-playback suite) |
| Additional software (notes) | Use of accompanying and/or additional Software is subject to proactive acceptance of the respective License Agreements /EULAs/ Subscription and support terms of the Software manufacturer as applicable for the relevant Software whether preinstalled or optional. The software may only be available bundled with a software support subscription which – depending on the Software - may be subject to separate remuneration. |

Security

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|--------------------------|---|
| System and BIOS Security | EraseDisk Boot sector virus protection Write protect option for the Flash EPROM Embedded security (TPM 2.0) Control of all USB interfaces External USB ports can be disabled separately Control of external interfaces |
| User Security | User and supervisor BIOS password Hard disk password |
| Security Notes | The properties of the product provide a baseline for product security and therefore end-customer IT security. However, these properties are not sufficient on their own to protect the product from all existing threats, such as intrusion attempts, data exfiltration and other forms of cyberattacks. To customize security settings, please use the configuration options as available for the respective product. During operation, the IT security of this product is within the responsibility of the respective administrator/end-user of the product. Please note, that Fujitsu as a manufacturer does not make any policy prescriptions or advocacy statements regarding IT security best practices and/or general product operation. |

Manageability

| | |
|--------------------------|---|
| Manageability technology | DeskUpdate Driver management PXE 2.1 Boot code Wake up from S5 (off mode) Intrusion switch (optional) WoL (Wake on LAN) iAMT 12.0 (depending on processor) eLCM iRMC |
| Manageability software | ServerView |
| Manageability link | https://www.fujitsu.com/global/products/computing/pc/manageability/ |

Miscellaneous**Packaging information**

| | |
|----------------------------|---|
| Packaging dimension (mm) | 264 x 490 x 87 mm |
| Packaging dimension (inch) | 10.39 x 19.29 x 3.43 inch |
| Packaging notes | printed user documentation is bleached in chlorine free process |

Warranty

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|-----------------------------|---|
| Warranty period | 3 years (depending on country) |
| Warranty type | Onsite Service |
| Warranty Terms & Conditions | http://www.fujitsu.com/warranty |

Warranty

| | |
|-------------------|--|
| Digital bug fixes | Subject to availability and following their generic release for the product, bug fixes and function-preserving patches for product-related software (firmware) can be downloaded from the technical support at: https://support.ts.fujitsu.com/ free of charge by entering the respective product serial number. For application software supplied together with the product, please directly refer to the support websites of the respective software manufacturer. |
|-------------------|--|

Product Support - the perfect extension

| | |
|--------------------------|---|
| Recommended Service | 9x5, Onsite Response Time: Next Business Day |
| Spare Parts availability | at least 5 years after shipment, for details see https://support.ts.fujitsu.com/ |
| Service Weblink | http://www.fujitsu.com/emeia/products/product-support-services/ |

Recommended Accessories

More information

Fujitsu products, solutions & services

In addition to the Fujitsu Workstation CELSIUS C780, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Fujitsu Portfolio

Build on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offering. This allows customers to leverage from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

Computing Products

www.fujitsu.com/global/products/computing/

Software

www.fujitsu.com/software/

More information

Learn more about the Fujitsu Workstation CELSIUS C780, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
www.fujitsu.com/emeia/CELSIUS

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.

Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT.

Please find further information at <http://www.fujitsu.com/global/about/environment>



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The overall product has been designed and manufactured for general office use, regular personal use and ordinary industrial use.

Contact

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