

Fujitsu recommends Windows 11 Pro.

# Data Sheet

## Fujitsu Workstation CELSIUS R970

### Uncompromising Workstation Performance for Extreme Requirements

Do you require the maximum in performance for simulations, analysis, rendering or High Performance Computing? Fujitsu's CELSIUS R970 desktop workstation is designed to surpass all expectations. Achieving first-class benchmark results, this reliable, high-end dual processor desktop workstation is optimized for extremely demanding and memory intensive multi-threaded applications.



#### Unleash the power

Achieve the optimum out of any demanding application

- Up to 2nd Gen Intel® Xeon® Scalable Processors
- Support of Windows 11 Pro
- Support of up to 1024 GB DDR4 2,933 ECC memory
- FUJITSU SSD PCIe card (up to 2 x 2 TB)

#### Maximum expandability

Broad selection and configuration options

- Broad choice of professional graphics cards from AMD and NVIDIA
- Up to two ultra-high-end, three high-end 3D or four mid-range graphic cards for simulation or photorealistic renderings

#### Work around the clock

Certain components can be configured to support an extended lifetime usage

- Selection of top-quality components and comprehensive testing in certified in-house laboratories
- Full support for ISV applications and easy integration into existing IT environments

#### We are (VR) ready

Enjoy a fully immersive and real-time Virtual Reality experience with low latency at high frame rates

- Up to NVIDIA RTX™ A6000 VR-ready graphics cards



# Components

<b>Processor</b>	Intel® Xeon® Silver processor 4215R (8C, 3.20 GHz, up to 4.0 GHz)
	Intel® Xeon® Silver processor 4214R (12C, 2.40 GHz, up to 3.5 GHz)
	Intel® Xeon® Silver processor 4210R (10C, 2.40 GHz, up to 3.2 GHz)
	Intel® Xeon® Gold processor 6240R (24C, 2.40 GHz, up to 4.0 GHz)
	Intel® Xeon® Gold processor 6226R (16C, 2.90 GHz, up to 3.9 GHz)
	Intel® Xeon® Gold processor 5220R (24C, 2.20 GHz, up to 4.0 GHz)
	Intel® Xeon® Gold processor 5218R (20C, 2.10 GHz, up to 4.0 GHz)
	Intel® Xeon® Platinum processor 8276 (28C, 2.20 GHz, up to 4.0 GHz, 10.4 GT/s)
	Intel® Xeon® Gold processor 6244 (8C, 3.60 GHz, up to 4.4 GHz, 10.4 GT/s)
	Intel® Xeon® Gold processor 6240 (18C, 2.60 GHz, up to 3.9 GHz, 10.4 GT/s)
Intel® Xeon® Gold processor 5222 (4C, 3.80 GHz, up to 3.7 GHz, 10.4 GT/s)	
<b>Operating systems</b>	
Operating system pre-installed	Windows 10 Pro. Fujitsu recommends Windows 11 Pro for business.
Operating system compatible	Linux 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 Certified for SUSE Enterprise Desktop Certified for SUSE Enterprise Server 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 <a href="https://support.ts.fujitsu.com/IndexProdSupport.asp?lng=com&amp;OpenTab=">https://support.ts.fujitsu.com/IndexProdSupport.asp?lng=com&amp;OpenTab=</a>
<b>Memory modules</b>	512 GB (4 module(s) ) Intel® Optane™ persistent memory: 4x DCPMM 128GB 2666 MHz, 8x DDR4 RG 16GB 2933 MHz, 8 GB (1 module(s) 8 GB) DDR4, registered, ECC, 2,933 MT/s
	16 GB (1 module(s) 16 GB) DDR4, registered, ECC, 2,933 MT/s
	32 GB (1 module(s) 32 GB) DDR4, registered, ECC, 2,933 MT/s
	64 GB (1 module(s) 64 GB) DDR4, registered, ECC, 2,933 MT/s
<b>Graphics</b>	High-end 3D: NVIDIA® RTX™ A4000, 16 GB, PCIe x16, 4 x DisplayPort
	Ultra-high-end 3D: NVIDIA® RTX™ A6000, 48 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
<b>Graphics</b>	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
<b>Graphics</b>	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, 1x 1024 GB M.2 NVMe Highend card
SSD PCIe, 1x 512 GB M.2 NVMe Highend card
SSD PCIe, 512 GB M.2 NVMe module, SED
HDD SATA III, 7,200 rpm, 4,000 GB, 3.5-inch, business critical
HDD SATA III, 7,200 rpm, 2,000 GB, 3.5-inch, business critical
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
HDD SATA III, 7,200 rpm, 2,000 GB, 3.5-inch
HDD SATA III, 7,200 rpm, 1,000 GB, 3.5-inch

## Hard disk notes

One Gigabyte equals one billion bytes, when referring to hard disk drive capacity.  
 24/7 ready (Business Critical HDDs or SAS HDDs or High Endurance SSDs required)  
 Up to 20 GB of HDD space is reserved for system recovery  
 SED (Self-Encrypting Drive)  
 SSD (Solid State Disk)

## Drives (optional)

BD Triple Writer SATA ultra slim (tray)  
 DVD Super Multi  
 DVD Super Multi ultra slim (tray)  
 MultiCard Reader 24in1 USB 2.0 3.5"

## SCSI / SAS Controller

Intel VROC HW key Standard M.2

## Interface add on cards/components (optional)

PLAN EM X557-T2 2x10GBASE-T  
 PLAN EM 2x10Gb SFP+  
 Dual 10 Gigabit Ethernet PCIe x8  
 PLAN EP X550-T2 2x10GBASE-T  
 WLAN 802.11ac (2x2) PCIe x1 and BT 5, SRD 5.8GHz (dedicated regions only)  
 Dual serial card PCIe x1

## Base unit

Base unit	CELSIUS R970B (S26361-K1449-V565)
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## Mainboard

Mainboard type	D3488-A2X
Formfactor	proprietary
Chipset	Intel® C624
Processor socket	Socket P
Processor quantity maximum	2
Supported capacity RAM (max.)	1,024 GB
Memory slots	16 (8 per processor) DIMM (DDR4) ECC

**Mainboard**

Memory frequency	2,933 MT/s
Memory notes	6 memory channels, thereof 2 channels supporting 2 DIMMs per channel. For optimized 6 channel performance, a minimum of 6 memory modules have to be ordered and the capacity per channel has to be the same. DDR4 2,933MHz may be clocked down to 2,666 or 2,400 or 2,133 depending on the processor. Supports up to 2TB of main memory (offered on request). This requires dual CPU usage with selected CPUs and 128GB DDR4 memory modules.
LAN	10/100/1,000 MBit/s Intel® I219LM and Intel® I210
BIOS version	AMI Aptio V
BIOS features	BIOS Flash EPROM update by software Recovery BIOS Unified Extensible Firmware Interface (UEFI)
Audio type	On board
Audio codec	Realtek ALC671
Audio features	High Definition Audio

**I/O controller on board**

Serial ATA total	10
thereof SATA III	10
Controller functions	Serial ATA III (6 Gbit) AHCI RAID 0/1/5/10

**Interfaces**

Audio: in (rear)	1
Audio: out (rear)	1
Audio: in	1
Audio: out	1
Internal speakers	1
USB 2.0 total	9
USB 3.1 Gen1 (USB 3.0) total	4
USB 3.1 Gen2 total	optional via add on card
USB front	2x USB 2.0; 2x USB 3.1 (Gen1); optional: 1x USB 3.1 Type-C (Gen2) via add on card and front adapter bay
USB rear	6
USB internal	3, thereof 1 type A
Ethernet (RJ-45)	2
eSATA	1 (optional)
Interface Module notes	Anytime USB charge functionality

**Input device / components**

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

**Drive bays**

Drive bays total	12
2.5-inch internal bays	8
3.5-inch internal bays	4
3.5-inch external bays	2
5.25-inch external bays	1
Drive bay notes	Up to 8x 2.5-inch HDDs (cold plug) and 1x 2.5-inch SSD or Up to 4x 3.5-inch HDDs (cold plug) and 1x 2.5-inch SSD or Up to 2x 2.5-inch and 2x 3.5-inch HDDs (cold plug) and 1x 2.5-inch SSD
M.2-2280	1 x on mainboard (for PCIe SSD modules)

**Slots**

PCI-Express 3.0 x8	2 x (200 mm) Full height (1x PCIe 3.0x8 per processor)
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Slots	
PCI-Express 3.0 x16	4 x (340 mm / 13.39 inch) Full height (2x PCIe 3.0x16 per processor)
PCI (32-bit / 33 MHz)	1 x (312 mm / 12.29 inch) Full height
PCI-Express 3.0 x8 (internal)	1 x (170 mm / 6.69 inch) Full height (available with 2nd CPU)
Graphics brand name	
Graphics notes	NVIDIA® Quadro® RTX 5000, RTX 6000, RTX8000 support NVLink
Electrical values	
Power consumption note	500 W depending on configuration
Rated voltage range	100 V - 240 V
Rated frequency range	50 Hz - 60 Hz
Operating voltage range	90 V - 264 V
Operating line frequency range	47 Hz - 63 Hz
Max. output of single power supply	1000 W up to 90% efficiency
Power factor correction/active power	active
Power supply output	2 graphics power rails (8pin connector / 18.5A@12V)
Noise for standard configuration (HDD, ODD, FDD)	
Related Processors for noise	Intel® Xeon® Gold processor 6240
Standard noise emission	8x4 GB, HDD, ODD, Windows According to ISO9296 (LpAm at bystander position)
Standard noise notes / description	A-weighted sound power level Lwad (in B) / Workplace related A-weighted sound pressure level LpAm (in dB(A))
Standard noise operation mode: CPU 50% load	4.7 B / 30 dB(A) Bystander position
Standard noise operation mode: CPU 90% load	
Standard noise operation mode: HDD load	3.9 B / 23 dB(A) Bystander position
Standard noise operation mode: Idle mode	3.9 B / 22 dB(A) Bystander position
Standard noise operation mode: ODD load	4.5 B / 28 dB(A) Bystander position
Standard noise operation mode: Office applications 2.0	3.9B / 22 dB(A) Bystander position
Dimensions / Weight / Environmental	
Dimensions (W x D x H)	186 x 618 x 430 mm 7.32 x 24.3 x 16.9 inch
Operating position	Vertical / horizontal
Weight	approx. 20 kg
Weight (lbs)	approx. 44.8 lbs
Weight notes	Actual weight may vary depending on configuration
Operating ambient temperature	10 - 35 °C (50 - 95 °F)
Operating relative humidity	5 - 85 % (relative humidity)
Compliance	
Product	CELSIUS R970
Model	ETNA-L
Germany	GS depending on configuration
Europe	CE
USA/Canada	FCC Class B cCSAus
Global	RoHS (EU & China) Microsoft Operating Systems (HCT / HCL entry / WHQL) WEEE (Waste electrical and electronic equipment)
Compliance notes	Product Name maybe followed by suffixes

**Compliance**

Compliance link	<a href="https://sp.ts.fujitsu.com/sites/certificates">https://sp.ts.fujitsu.com/sites/certificates</a>
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**Additional Software**

Additional software (preinstalled)	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) CyberLink PowerDVD BD (playback software for Blu-ray Disc™) CyberLink PowerDVD DVD (playback software for DVD) Nero Essentials XL Microsoft® Office Professional 2021 Microsoft® Office Home and Business 2021 (Need to buy license to activate the pre-installed Microsoft Office. Purchase and activation only in the region in which it was acquired.)
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**

Physical Security	Kensington Lock support Eye for padlock Intrusion switch Integrated cabinet lock (optional)
System and BIOS Security	Embedded security (TPM 2.0) EraseDisk Boot sector virus protection Write protect option for the Flash EPROM 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 Access protection via external SmartCard reader (optional) Access protection via internal SmartCard reader (optional)
Workplace Embedded Tools	Auto BIOS Update via Fujitsu Server Auto BIOS Update via customer server (optional) Easy PC Protection (optional) Easy Restore (optional)

**Manageability**

Manageability technology	iAMT 11.6 (depending on processor) DeskUpdate Driver management PXE 2.1 Boot code Wake up from S5 (off mode) WoL (Wake on LAN)
Manageability software	DeskView Client DeskView Instant BIOS Management
DeskView components	Inventory Management BIOS Management Driver Management Security Management Alarm Management
Supported standards	WMI (Windows Management Instrumentation) PXE (Preboot Execution Environment) DMI (Desktop Management Interface) SMBIOS (System Management BIOS) WBEM (Web Based Enterprise Management) CIM (Common Information Model)
Manageability link	<a href="https://www.fujitsu.com/global/products/computing/pc/manageability/">https://www.fujitsu.com/global/products/computing/pc/manageability/</a>

Miscellaneous

	Rack mountable (5U)
Spare part availability	5 years

Packaging information

Max. quantity / pallet	11
Packaging notes	printed user documentation is bleached in chlorine free process

Warranty

Warranty period	3 years (depending on country)
Warranty type	Bring-In / Onsite Service (for countries within region EMEA, for all other countries depending on local regulations)
Warranty Terms & Conditions	<a href="http://www.fujitsu.com/warranty">http://www.fujitsu.com/warranty</a>
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: <a href="https://support.ts.fujitsu.com/">https://support.ts.fujitsu.com/</a> 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 <a href="https://support.ts.fujitsu.com/">https://support.ts.fujitsu.com/</a>
Service Weblink	<a href="http://www.fujitsu.com/emeia/products/product-support-services/">http://www.fujitsu.com/emeia/products/product-support-services/</a>

## Recommended Accessories

SpaceMouse Pro



Using the SpaceMouse™ Pro 3D mouse to navigate 3D models or environments is as simple as holding them in your hand. A slight movement of the controller cap delivers easy and precise control. SpaceMouse™ Pro is a companion to the traditional mouse and is operated with the free hand. Your traditional mouse hand is free to select, create and edit.

Order Code:  
S26381-K459-L100

Keyboard KB955



The KB955 is a very flat keyboard with extra low keys and spill-resistant protection. The elegant design and top-quality construction makes the KB955 the ideal input device for any PC or Notebook user. If you accidentally spill some water or coffee onto the keyboard, this special construction helps the liquid to flow away.

S26381-K955-L4\*\* (\*\*:  
Country specific variation)

## More information

### Fujitsu products, solutions & services

In addition to the Fujitsu Workstation CELSIUS R970, 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/](http://www.fujitsu.com/global/products/computing/)

#### Software

[www.fujitsu.com/software/](http://www.fujitsu.com/software/)

### More information

Learn more about the Fujitsu Workstation CELSIUS R970, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.

[www.fujitsu.com/emeia/CELSIUS](http://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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### Disclaimer

Please note that the data sheet reflects the technical specification with the maximum selection of components for the named system and not the detailed scope of delivery. The scope of delivery is defined by the selection of components at the time of ordering.

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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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2024-04-06 EM-EN

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