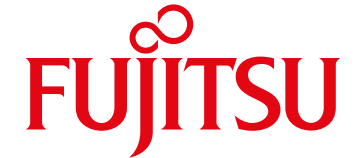


Fujitsu recommends Windows 11 Pro.

Fujitsu Workstation CELSIUS

Choose the right hardware to accelerate your software application



Mobile Workstation

Elegant. Mobile. Powerful.

CELSIUS H: H7510 - 15.6-inch
H5511 - 15.6-inch



Desktop Workstation

Develop, Simulate, Calculate and Visualize your Ideas

CELSIUS J: J5010
CELSIUS W: W5012, W5011, W5010, W5010/L
CELSIUS M: M7010, M7010X
CELSIUS R: R970 (dual-processor)



APPLICATION FIELDS	USAGE SCENARIO	TYPICAL INDUSTRIES	SOFTWARE	TOP REQUIREMENTS	PRODUCTS
<p>CAD Computer Aided Design</p>	2D and 3D technical drawing of physical objects, parts and assemblies (Product design, industrial design, modelling, model analysis)	All manufacturers: • Automotive, Aerospace, etc.	<ul style="list-style-type: none"> Autodesk (AutoCAD, Inventor) Dassault Systèmes (CATIA, 3DEXCITE, DeltaGen, SOLIDWORKS) Siemens PLM (NX, Teamcenter) PTC (Creo Parametric) 	<ul style="list-style-type: none"> Single-threaded app => high processor frequencies Fast flash drives Moderate storage capacity Open GL graphics 	CELSIUS H CELSIUS J, W, M
<p>CAE, SIM Computer Aided Engineering & Simulation</p>	Mechanical, thermal and fluid simulations Electronic design simulation	All industries	<ul style="list-style-type: none"> ANSYS (Fluent, CFX, Mechanical) Autodesk (Revit, Moldflow) Dassault Systèmes (SIMULIA) MSC Software (Nastran, Patran) Siemens PLM (Tecnomatix, FiberSIM) 	<ul style="list-style-type: none"> Multi-threaded app => high number of cores Fast flash drives Maximum memory High storage capacity Compute GPUs & 3D graphics 	CELSIUS M & R
<p>AEC Architecture, Engineering and Construction</p>	2D and 3D planning and construction (incl. BIM) of buildings, factories and infrastructure	<ul style="list-style-type: none"> Plants Shipbuilding & Offshore industries Tunnels and bridges Urban planning 	<ul style="list-style-type: none"> Autodesk (AutoCAD, Revit) AVEVA Bentley (Microstation) Hexagon (Geosystems, Metrology) Nemetschek (Allplan) Trimble (Sketchup Pro, Tekla BIMsight) 	<ul style="list-style-type: none"> Single-threaded app => high numbers of cores Fast flash drives Moderate storage capacity Open GL graphics 	CELSIUS H CELSIUS J & W
<p>M&E Media & Entertainment</p>	Content creation, video editing, animation, photo retouching, special effects, design and photorealistic renderings	<ul style="list-style-type: none"> Broadcasting Film and animation studios Agencies Marketing 	<ul style="list-style-type: none"> Adobe (Premiere Pro, After Effects, Photoshop) Autodesk (Maya, 3ds Max, VRED) Avid (Media Composer) Chaos Group (V-Ray) Dassault Systèmes (ICEM Surf Design) 	<ul style="list-style-type: none"> Multi-threaded app => high number of cores Fast flash drives High storage capacity Graphics: 2D and 3D 	CELSIUS H CELSIUS W & M
<p>GIS, O&G Geographic Information System & Oil and Gas</p>	Geo data collection, processing and visualisation	<ul style="list-style-type: none"> Defense and government Science and research Cartography Transportation 	<ul style="list-style-type: none"> ESRI (ArcGIS) Intergraph (Geomeia) Halliburton (Landmark, Pinnacle) Paradigm (Echos RTM, Tech) Schlumberger (Petrel, ECLIPSE, Omega) 	<ul style="list-style-type: none"> Multi-threaded app => high number of cores Fast flash drives Maximum memory High storage capacity Compute GPUs & 3D graphics 	CELSIUS R
<p>Healthcare</p>	Visualize and simulate biological and chemical systems Electronic Health & Medical Record (EHR, EMR), Personal Health Record (PHR)	<ul style="list-style-type: none"> Medical product vendors Chemistry and Pharmacology Hospitals Biotechnology and Laboratory Diagnostics 	Mostly in-house developed software like Syngo (Siemens Healthcare) Dassault Systèmes: Simulia	<ul style="list-style-type: none"> Long lifecycle models Whisper quiet Customization (Made4You) 	CELSIUS Long Lifecycle products

Fujitsu recommends Windows 11 Pro.



	MOBILE WORKSTATIONS		DESKTOP WORKSTATIONS		
Series	CELSIUS H		CELSIUS W		
Model	H5511	H7510	W5012	W5011	W5010
Form Factor	39.6 cm (15.6-inch), Full HD	39.6 cm (15.6-inch) Full HD,	Proprietary	Micro Tower	Micro Tower
Weight / liter	Weight: 1.9 kg	Weight: 2.7 kg	approx. 10 kg - single processor	21 liter - single processor	21 liter - single processor
Processor (incl. cores & frequency)	Intel® Core™ i7-1185G7 processor (max. 4 Cores / 4.8 GHz) Intel® Core™ i7-1165G7 processor (max. 4 Cores / 4.7 GHz) Intel® Core™ i5-1145G7 processor (max. 4 Cores / 4.4 GHz) Intel® Core™ i5-1135G7 processor (max. 4 Cores / 4.2 GHz)	Intel® Xeon® W-10885M with vPro™ (max. 8 cores / 5.30 GHz) Intel® Xeon® W-10855M vPro™ (max. 6 cores / 5.10 GHz) 10th Gen Intel® Core™ i9-10885H with vPro™ (max. 8 cores / 5.30 GHz) 10th Gen Intel® Core™ i7-10875H with vPro™ (max. 8 cores / 5.10 GHz) 10th Gen Intel® Core™ i7-10850H with vPro™ (max. 6 cores / 5.10 GHz) 10th Gen Intel® Core™ i5-10400H vPro® processor (max. 4 cores / 4.60 GHz)	Intel® Core™ i9-12900 processor (16 Cores(8+8) / 2.4 GHz) Intel® Core™ i9-12900K processor (16 Cores(8+8) / 3.2 GHz) Intel® Core™ i7-12700 processor (12 Cores(8+4) / 2.1 GHz) Intel® Core™ i7-12700K processor (12 Cores(8+4) / 3.6 GHz) Intel® Core™ i5-12500 processor (6 Cores / 3.0 GHz)	Intel® Xeon® processor W-1390P (max. 8 Cores / 5.1 GHz) Intel® Xeon® processor W-1370 (max. 8 Cores / 5.0 GHz) Intel® Xeon® processor W-1350 (max. 6 Cores / 5.0 GHz) Intel® Core™ i9-11900K processor (max. 8 Cores / 3.5 GHz) Intel® Core™ i9-11900 processor (max. 8 Cores / 2.5 GHz) Intel® Core™ i7-11700K processor (max. 8 Cores / 3.6 GHz) Intel® Core™ i7-11700 processor (8 Cores / 2.5 GHz) Intel® Core™ i5-11500 processor (6 Cores / 2.70 GHz)	Intel® Xeon® processor W-1290P (max. 10 cores / 5.2 GHz) Intel® Xeon® processor W-1290 (max. 10 cores / 5.1 GHz) Intel® Xeon® processor W-1270P (max. 8 cores / 5.1 GHz) Intel® Xeon® processor W-1270 (max. 8 cores / 5.0 GHz) Intel® Xeon® processor W-1250P (max. 6 cores / 4.8 GHz) Intel® Xeon® processor W-1250 (max. 6 cores / 4.7 GHz) Intel® Core™ i9-10900 processor (max. 10 cores / 2.80 GHz) Intel® Core™ i9-10900K processor (max. 10 cores / 3.70 GHz) Intel® Core™ i7-10700 processor (max. 8 cores / 2.90 GHz) Intel® Core™ i7-10700K processor (max. 8 cores / 3.80 GHz) Intel® Core™ i5-10600 processor (max. 6 cores / 3.30 GHz) Intel® Core™ i5-10500 processor (max. 6 cores / 3.10 GHz) Intel® Core™ i3-10100 processor (max. 4 cores / 3.60 GHz)
Operating System (pre-installed)	Windows 11 Pro. Fujitsu recommends Windows 11 Pro. Windows 10 Pro	Windows 11 Pro. Fujitsu recommends Windows 11 Pro. Windows 10 Pro	Windows 11 Pro. Fujitsu recommends Windows 11 Pro for business. Windows 11 Home Windows 10 Pro	Windows 11 Pro. Fujitsu recommends Windows 11 Pro for business. Windows 11 Home Windows 10 Pro. Fujitsu recommends Windows 11 Pro for business.	Windows 11 Pro. Fujitsu recommends Windows 11 Pro for business. Windows 11 Home Windows 10 Pro. Fujitsu recommends Windows 11 Pro for business.
Memory	Up to 64 GB DDR4, 3,200 MT/s, SO DIMM	Up to 128 GB, 4 SO DIMM memory slots, DDR4 - 2,666 MHz; based on Intel® design, systems built with four DIMM slots run at 2,400 MT/s	Up to 128 GB DDR5 4,400 MT/s memory (incl. ECC)	Up to 128 GB, DIMM memory slot, ECC/non-ECC, DDR4 - 3,200 MHz	Up to 128 GB, 4 DIMM memory slots, ECC/non-ECC, DDR4 - 2,933 MHz
Graphics Cards	NVIDIA® T500 (4 GB)	NVIDIA® Quadro® P620 – 4GB (512 CUDA cores) NVIDIA® Quadro® T1000 – 4GB (896 CUDA cores) NVIDIA® Quadro® T2000 – 4GB (1024 CUDA cores) NVIDIA® Quadro RTX™ 3000 – 6GB (1920 CUDA cores)	Up to 1x high-end 3D graphic card: up to NVIDIA RTX™ A5000 (24 GB) or up to NVIDIA® Quadro RTX™ 4000 (16 GB) or up to AMD Radeon™ Pro WX 3200 (4 GB)	Up to 1x high-end 3D graphic card: up to NVIDIA RTX™ A5000 (24 GB) or up to NVIDIA® Quadro RTX™ 4000 (16 GB) or up to AMD Radeon™ Pro WX 3200 (4 GB)	Up to 1x high-end 3D graphic card: up to NVIDIA RTX™ A5000 (24 GB) or up to NVIDIA® Quadro RTX™ 4000 (16 GB) or up to AMD Radeon™ Pro WX 3200 (4 GB)
Storage	2x M.2 NVMe PCIe slots (incl. RAID support) with up to 2 TB SSD PCIe M.2 NVMe - (SED) per slot	SSD PCIe NVMe (Standard, Highend, SED) HDD SATA	SSD PCIe M.2 NVMe SSD SATA HDD SATA	SSD PCIe M.2 NVMe SSD SATA HDD SATA	SSD PCIe M.2 NVMe SSD SATA HDD SATA RAID 1 Bundle M.2 NVMe Highend
Drive bays	-	-	6 in total	6 in total	6 in total
Slots	1x RJ-45, 2x USB Type-C™ TBT4 (with 15 W Power Delivery), 1x SIM card slot, 1x SmartCard, 1x SD Card Reader, 1x Audio Combo Jack, 2x USB 3.2 Gen1, 1x HDMI, 1x Kensington Lock	1x DC-in, 1x Audio Combo, 1x USB 3.1 Gen1, 2x USB 3.1 Gen2, 2x USB Type-C™, 1x VGA, 1x HDMI, 1x RJ-45, 1x SmartCard slot, 1x SIM card slot, SDCardReader, 1x Kensington Lock.	4 in total: 1 x PCI-Express 3.0 x1 1 x PCI-Express 3.0 x4 (mech. x16) 1 x PCI-Express 5.0 x16 1 x (270 mm / 10.63 inch) Full height	4 in total: 2x PCI-Express 3.0 x1 1x PCI-Express 3.0 x4 (mech. x16) 1x PCI-Express 4.0 x16 M.2-2230	4 in total: 2x PCI-Express 3.0 x1 1x PCI-Express 3.0 x4 (mech. x16) 1x PCI-Express 3.0 x16
USB	4 in total (USB 3.2 Gen1 (5 Gbps) total 2xType-A; 2 x Intel® Thunderbolt™ 4 USB Type-C™)	5 in total (1x USB 3.1 Gen1, 2x USB 3.1 Gen2, 2x USB Type-C™)	12 in total (4x USB 2.0, 2x USB 3.2 Gen 1 (5 Gbps); 5x USB 3.2 Gen 2 (10 Gbps); 2x USB 3.2 Gen2x2 (20 Gbps) total 1)	12 in total (4x USB 2.0, 3x USB 3.2 Gen 1 (5 Gbps); USB 3.2 Gen 2 (10 Gbps) total 4 and 1 optional; USB 3.2 Gen2x2 (20 Gbps) total 1)	12 in total (4x USB 2.0, 3x USB 3.2 Gen 1 (5 Gbps); USB 3.2 Gen 2 (10 Gbps) total 5 and 1 optional)
Serial ATA	-	-	6	4	6
Power Supply	Li-Ion battery 4-cell, 69.7 Wh, 4515 mAh up to 10 hours (depending on configuration)	230 W 8-cell, 96 Wh battery - up to 12 hours	max. 680 W	300W or 680 W (depending on PSU)	300W or 680 W (depending on PSU)

Fujitsu recommends Windows 11 Pro.



DESKTOP WORKSTATIONS

Series	CELSIUS W	CELSIUS J	CELSIUS M		CELSIUS R
Model	W5010/ L	J5010	M7010	M7010X	R970
Form Factor	Micro Tower	Small Form Factor (SFF)	Midi Tower	Midi Tower	Big Tower
Weight / liter	21 liter - single processor	8.3 liter - single processor	38 liter - single processor	38 liter - single processor	49 liter - dual processor
Processor (incl. cores & frequency)	Intel® Xeon® processor W-1290 (max. 10 cores / 5.1 GHz) Intel® Xeon® processor W-1270 (max. 8 cores / 5.0 GHz) Intel® Xeon® processor W-1250 (max. 6 cores / 4.7 GHz) Intel® Core™ i9-10900 processor (max. 10 cores / 2.80 GHz) Intel® Core™ i7-10700 processor (max. 8 cores / 2.90 GHz) Intel® Core™ i5-10500 processor (max. 6 cores / 3.10 GHz) Intel® Core™ i3-10100 processor (max. 4 cores / 3.60 GHz)	Intel® Xeon® processor W-1290 (max. 10 cores / 5.10 GHz) Intel® Xeon® processor W-1270 (max. 8 cores / 5.0 GHz) Intel® Xeon® processor W-1250 (max. 6 cores / 4.70 GHz) Intel® Core™ i9-10900 processor (max. 10 cores / 2.80 GHz) Intel® Core™ i7-10700 processor (max. 8 cores / 2.90 GHz) Intel® Core™ i5-10600 processor (max. 6 cores / 3.30 GHz) Intel® Core™ i5-10500 processor (max. 6 cores / 3.10 GHz) Intel® Core™ i3-10100 processor (max. 4 cores / 3.60 GHz)	Intel® Xeon® processor W-2223 (max. 4 cores / 3.90 GHz) Intel® Xeon® processor W-2225 (max. 4 cores / 4.60 GHz) Intel® Xeon® processor W-2235 (max. 6 cores / 4.60 GHz) Intel® Xeon® processor W-2245 (max. 8 cores / 4.50 GHz) Intel® Xeon® processor W-2255 (max. 10 cores / 4.50 GHz) Intel® Xeon® processor W-2265 (max. 12 cores / 4.60 GHz) Intel® Xeon® processor W-2275 (max. 14 cores / 4.60 GHz) Intel® Xeon® processor W-2295 (max. 18 cores / 4.60 GHz)	Intel® Core™ i9-10980XE Extreme processor (max. 18 cores / 4.60 GHz) Intel® Core™ i9-10900X processor (max. 10 cores / 4.50 GHz) Intel® Core™ i9-10920X processor (max. 12C/24T / 4.60 GHz) Intel® Core™ i9-10940X processor (max. 14 cores / 4.60 GHz)	Intel® Xeon® Platinum processor 8200 family (max. 2x28 cores / 4.0 GHz) Intel® Xeon® Gold processor 5200 and 6200 family (max. 2x24 cores / 4.4 GHz) Intel® Xeon® Silver processor 4200 family (max. 2x12 cores / 4.0 GHz)
Operating System (pre-installed)	Windows 11 Pro. Fujitsu recommends Windows 11 Pro for business. Windows 11 Home Windows 10 Pro. Fujitsu recommends Windows 11 Pro for business.	Windows 11 Pro. Fujitsu recommends Windows 11 Pro for business. Windows 11 Home Windows 10 Pro. Fujitsu recommends Windows 11 Pro for business.	Windows 11 Pro. Fujitsu recommends Windows 11 Pro for business. Windows 10 Pro. Fujitsu recommends Windows 11 Pro for business	Windows 11 Pro. Fujitsu recommends Windows 11 Pro for business. Windows 10 Pro. Fujitsu recommends Windows 11 Pro for business.	Windows 11 Pro. Fujitsu recommends Windows 11 Pro for business. Windows 10 Pro. Fujitsu recommends Windows 11 Pro for business.
Memory	Up to 128 GB, 4 DIMM memory slots, ECC/non-ECC, DDR4 - 2,933 MT/s	Up to 128 GB, 4 DIMM memory slots, ECC/non-ECC, DDR4 - 2,933 MHz	Up to 512 GB, 8 DIMM memory slots ECC, DDR4 - 2,933 MT/s	Up to 256 GB, 8 DIMM memory slots DDR4 - 2,933 MT/s	Up to 1024 GB, 16 DIMM memory slots (8 per processor), ECC, DDR4 - 2,933 MHz
Graphics Cards	Up to 1x high-end 3D graphic card: up to NVIDIA RTX™ A5000 (24 GB) or up to NVIDIA® Quadro RTX™ 4000 (16 GB) or up to AMD Radeon™ Pro WX 3200 (4 GB)	Full-height graphics cards: up to NVIDIA® Quadro® P2200 (5 GB) up to AMD Radeon™ Pro WX 3200 (4 GB)	Ultra-high-end 3D graphics cards: up to NVIDIA RTX™ A6000 (24 GB) or up to 2x NVIDIA® Quadro RTX™ 8000 (48 GB) or up to AMD Radeon™ Pro WX 3200 (4 GB)	Ultra-high-end 3D graphics cards: up to NVIDIA RTX™ A6000 (24 GB) or up to 2x NVIDIA® Quadro RTX™ 8000 (48 GB) or up to AMD Radeon™ Pro WX 3200 (4 GB)	Ultra-high-end 3D graphics cards: up to 2x NVIDIA RTX™ A6000 (24 GB) or up to 2x NVIDIA® Quadro RTX™ 8000 (48 GB) or up to AMD Radeon™ Pro WX 3200 (4 GB)
Storage	SSD PCIe M.2 NVMe SSD SATA HDD SATA RAID 1 Bundle M.2 NVMe Highend	SSD PCIe M.2 NVMe SSD SATA HDD SATA RAID 1 Bundle M.2 NVMe Highend	SSD PCIe M.2 NVMe (module, card, Highend) SSD SATA (Standard, High Endurance, SED) HDD SAS HDD SATA (Standard, Business Critical)	SSD PCIe M.2 NVMe (module, card, Highend) SSD SATA (Standard, High Endurance, SED) HDD SATA (Standard, Business Critical)	SSD PCIe M.2 NVMe (Highend, card or module) SSD PCIe M.2 NVMe, card or module SSD SATA (Standard, High Endurance, SED) HDD SAS HDD SATA (Standard, Business Critical)
Drive bays	6 in total	3 in total	7 in total	7 in total	12 in total
Slots	4 in total: 2x PCI-Express 3.0 x1 1x PCI-Express 3.0 x4 (mech. x16) 1x PCI-Express 3.0 x16	1x PCIe 3.0 x4 (mech. x16) 1x PCIe 3.0 x16 - Low Profile - Full Height via optional Riser card	7 in total: 2 x PCI-Express 3.0 x1 2 x PCI-Express 3.0 x4 1 x PCI-Express 3.0 x8 2 x PCI-Express 3.0 x16	7 in total: 2 x PCI-Express 3.0 x1 2 x PCI-Express 3.0 x4 PCI-Express 3.0 x4 (mech. x8) 2 x PCI-Express 3.0 x16	8 in total: 4 x PCI-Express 3.0 x16 2 x PCI-Express 3.0 x8 1 x PCI-Express 3.0 x8 (Internal) 1 x PCI
USB	12 in total (4x USB 2.0, 3x USB 3.2 Gen 1 (5 Gbps); USB 3.2 Gen 2 (10 Gbps) total 5 and 1 optional)	12 in total (4x USB 2.0, 3x USB 3.2 Gen 1 (5 Gbps); USB 3.2 Gen 2 (10 Gbps) total 5 and 1 optional)	10 in total (2x USB 2.0, 6x USB 3.1 Gen1, 2x USB 3.1 Gen2 optional)	10 in total (2x USB 2.0, 6x USB 3.1 Gen1, 2x USB 3.1 Gen2 optional)	14 in total (9x USB 2.0, 4x USB 3.1 Gen1, 1x USB 3.1 Gen 2 optional)
Serial ATA	6	4	8	8	10
Power Supply	max. 680 W	300 W	M7010 : 450 W max. - 90% efficiency M7010power: 800 W - max. 90% efficiency	M7010X: 450 W max. - 90% efficiency M7010Xpower: 800 W - max. 90% efficiency	R970: 1000 W - max. 90% efficiency R970power: 1300 W - max. 90% efficiency
Others	Minimum 36 months lifecycle		VR-ready	VR-ready	VR-ready Intel VROC HW key: Standard M.2, Premium U.2