Fujitsu recommends Windows 11 Pro.



Data Sheet FUJITSU Workstation CELSIUS J5010

Space-saving design that packs a workstation-sized punch

No need to choose between size and performance in a Small Form Factor (SFF). FUJITSU CELSIUS J5010 offers high-end performance in a compact 8.3 liter design. Ideally suited for 2D and 3D CAD, this small yet powerful computer is a great match for space-constrained workplaces that need workstation-class performance and reliability.

Breakthrough performance

Power through demanding workflows with unparalleled ease

- 10th generation Intel® Core™ and Intel® Xeon® W-1200 processors
- Support of Windows 11 Pro
- Up to 128 GB DDR4 2,933 MHz memory (incl. ECC)
- Full-height graphics cards
- Support of 24/7 operation with reliable high-endurance and business critical drives

Space-saving design – taking the small form factor to next level No compromise between performance, design and space

- Compact housing (8.3 liter) which is 17% smaller than the previous generation system
- Extremely quiet workstation with NVIDIA® Quadro® P2200 graphics card

Whisper-quiet design

Pleasant working environment that helps you focus on what matters most

- Innovative thermal design for optimized thermal management and cooling
- Lowest-noise emission in its category helps you realize a silent workplace and enhanced productivity

Ultimate usability

Easy access, upgrade and use of the system

- Tool-less access to components, easy change and screw-less add on cards
- High reliability built for 24/7 operations
- Software compatibility ISV certifications for leading software applications

Applicable in a wide range of usage scenarios

Ideal for CAD, design, multimedia, visualization and manufacturing; great choice for multimonitoring in control rooms, surveillance and trading floors with limited space

- Supports graphics-accelerated applications
- Advanced CPUs in combination with flash storage for best application performance
- Up to 8 monitors with the NVIDIA® Mosaic™ technology















Components

Processor	Intel® Xeon® processor W-1290 (10 Cores / 20 Threads, 3.20 GHz, up to 5.1 GHz, Intel® UHD Graphics P630)
	Intel® Xeon® processor W-1270 (8 Cores / 16 Threads, 3.40 GHz, up to 5.0 GHz, Intel® UHD Graphics P630)
	Intel® Xeon® processor W-1250 (6 Cores / 12 Threads, 3.30 GHz, up to 4.7 GHz, Intel® UHD Graphics P630)
	Intel® Core™ i9-10900 processor (10 Cores / 20 Threads, 2.80 GHz, 20 MB, Intel® UHD Graphics 630) **
	Intel® Core™ i7-10700 processor (8 Cores / 16 Threads, 2.90 GHz, 16 MB, Intel® UHD Graphics 630) **
	Intel® Core™ i5-10600 processor (6 Cores / 12 Threads, 3.30 GHz, 12 MB, Intel® UHD Graphics 630) *
	Intel® Core™ i5-10500 processor (6 Cores / 12 Threads, 3.10 GHz, 12 MB, Intel® UHD Graphics 630) *
	Intel® Core™ i3-10100 processor (4 Cores / 8 Threads, 3.60 GHz, 6 MB, Intel® UHD Graphics 630) *
	Intel® vPro® Platform with all Intel® Xeon® processors Intel® vPro® Platform Logo with Intel® Core™ i5, Intel® Core™ i7 and Intel® Core™ i9 processors *with Intel® Turbo Boost Technology 2.0 (clock speed and performance will vary depending on workload and other variables)
Operating systems	
Operating system pre-installed	Windows 10 Pro for Workstations Windows 10 Pro Windows 10 Home
Operating system compatible	Windows 11
	Windows 11 Pro. Fujitsu recommends Windows 11 Pro for business.
	FREE Upgrade to Windows 11 when available.
	The Windows 11 upgrade will be delivered to qualifying devices late 2021 into 2022. Timing varies by device. Certain features require specific hardware (see https://www.microsoft.com/windows/windows-11-specifications).
Operating system notes	For some configurations third party drivers are currently not available or configuration restrictions may apply.
, ,	Windows 10 Support: After the end of the product life FUJITSU will continue to test and support all upcoming Window
	10 releases for a period of maximum 5 years – depending on the available extension of hardware services through
	FUJITSU Warranty top ups. For details please see "FUJITSU Service Statement for Windows 10 Semi-Annual-Channel
	Support" at http://support.ts.fujitsu.com.
Memory modules	4 GB (1 module(s) 4 GB) DDR4, unbuffered, non-ECC, 2,933 MT/s, UDIMM
	8 GB (1 module(s) 8 GB) DDR4, unbuffered, ECC, 2,933 MT/s, UDIMM
	8 GB (1 module(s) 8 GB) DDR4, unbuffered, non-ECC, 2,933 MT/s, UDIMM
	16 GB (1 module(s) 16 GB) DDR4, unbuffered, ECC, 2,933 MT/s, UDIMM
	16 GB (1 module(s) 16 GB) DDR4, unbuffered, non-ECC, 2,933 MT/s, UDIMM
	32 GB (1 module(s) 32 GB) DDR4, unbuffered, ECC, 2,933 MT/s, UDIMM
	32 GB (1 module(s) 32 GB) DDR4, unbuffered, non-ECC, 2,933 MT/s, UDIMM
Graphics	Entry 3D: NVIDIA® Quadro® P1000, 4 GB, PCIe x16, 4 x miniDP
	Entry 3D: NVIDIA® Quadro® P620 LP, 2 GB, PCIe x16, 4 x miniDP
	Entry 3D: NVIDIA® Quadro® P400 LP, 2 GB, PCIe x16, 3 x miniDP
	Entry 3D: NVIDIA® T400, 2 GB, PCIe x16, 3 x miniDP
	Others: MiniDP to DP Adapter Cable
Mass storage 2.5 inch size	SSD SATA III, 512 GB, 2.5-inch
	SSD SATA III, 256 GB, 2.5-inch
Mass Storage M.2 technology	SSD PCIe, 2048 GB M.2 NVMe module
5	SSD PCIe, 1024 GB M.2 NVMe module, SED
	SSD PCIe, 1024 GB M.2 NVMe module
	SSD PCIe, 512 GB M.2 NVMe module, SED
	SSD PCIe, 512 GB M.2 NVMe module
	SSD PCIe, 256 GB M.2 NVMe module
	SSD PCIe, 128 GB M.2 NVMe module
	RAID1 Bundle 2x512GB M.2 NVMe Highend

Mass storage 3.5 inch size	HDD SATA III, 7,200 rpm, 8000 GB, 3.5-inch, business critical
	HDD SATA III, 7,200 rpm, 4000 GB, 3.5-inch, business critical
	HDD SATA III, 7,200 rpm, 2000 GB, 3.5-inch, business critical
	HDD SATA III, 7,200 rpm, 2000 GB, 3.5-inch
Mass storage 2.5 inch size	HDD SATA III, 7,200 rpm, 2,000 GB, 2.5-inch, business critical
Mass storage 3.5 inch size	HDD SATA III, 7,200 rpm, 1000 GB, 3.5-inch
Mass storage 2.5 inch size	HDD SATA III, 5,400 rpm, 500 GB, 2.5-inch
	SSD SATA III, 960 GB High Endurance, 1DWDP, 2.5-inch
	SSD SATA III, 480 GB High Endurance, 1DWDP, 2.5-inch
	SSD SATA III, 240 GB High Endurance, 1DWDP, 2.5-inch
Hard disk notes	One Gigabyte equals one billion bytes, when referring to hard disk drive capacity.
	24/7 ready (business critical HDDs required)
	SED (Self-Encrypting Drive)
	SSD (Solid State Disk)
Drives (optional)	BD Triple Writer SATA ultra slim (tray)
	DVD Super Multi ultra slim (tray)
	SD Card reader
Interface add on cards/components	
(optional)	
	Intel® WI-FI 6 AX200 and Bluetooth 5.1 vPro, SRD 5.8GHz (dedicated regions only)
	Dual serial card PCle x1 LP

Base unit

Base unit	CELSIUS J5010
Mainboard	
Mainboard type	D3828
Formfactor	proprietary
Chipset	Intel® W480
Processor socket	LGA 1200
Processor quantity maximum	1
Supported capacity RAM (max.)	128 GB
Memory slots	4 DIMM (DDR4) ECC/non-ECC
Memory frequency	2,933 MT/s
Memory notes	Dual channel support For dual channel performance, 2 memory modules have to be ordered. Capacity per channel has to be the same. 2933 MHz may be clocked down to 2400MHz depending on processor and memory configuration
LAN	10/100/1,000 MBit/s Intel® I219LM
Integrated WLAN	optional; Intel® Wi-Fi 6 AX200 (2x2/160) Gig+ and Bluetooth 5.1
BIOS version	AMI Aptio V UEFI Specification 2.6
BIOS features	BIOS Flash EPROM update by software Recovery BIOS Unified Extensible Firmware Interface (UEFI)
Audio type	On board
Audio codec	Realtek ALC623
Audio features	Internal speaker supports audio playback (optional), High Definition audio, 5.1 surround sound
I/O controller on board	
Serial ATA total	4
thereof SATA III	4

I/O controller on board	
Controller on board	Cowiel ATA III (C Chia)
Controller functions	Serial ATA III (6 Gbit) NCQ
	AHCI
	RAID 0/1/5/10
Interfaces	
Audio: line-in	1
Audio: line-out	1
Front audio: headset	1
Internal speakers	1
USB 2.0 total	4
USB 3.2 Gen1 (5 Gbps) total	3
USB 3.2 Gen2 (10 Gbps) total	5 and 1 optional
USB front	2x USB 2.0; 2x USB 3.2 Gen 2; 1x USB 3.2 Gen 2 Type-C (supports up to 15W)
USB rear	2x USB 2.0; 2x USB 3.2 Gen 1; 2x USB 3.2 Gen 2; optional: additional 1x USB 3.2 Gen 2 Type-C (supports DisplayPort 1.4 and power delivery (PD) up to 15W or 60W (occupies PCIe x16 slot)
USB internal	1x USB 2.0 or 1x USB 3.2 Gen 1 Type A
VGA	optional
DisplayPort	2
DVI	optional (DVI-D)
Serial (RS-232)	1 (optional serial port (9pin, 16 byte FIFO, 16550 compatible))
Mouse / Keyboard (PS/2)	2 (optional)
Ethernet (RJ-45)	1
Parallel	1 (optional) (25pin with EPP and ECP)
Interface Module notes	Anytime USB charge functionality
Input device / components	
Input devices (optional)	Keyboard
	Mouse
Drive bays	
Drive bays total	3
2.5-inch internal bays	1
5.25-inch external bays	1
Drive bay notes	1x internal 3.5" bay optional (screwless), can be used via adapter for 1x or 2x 2.5" drives (screwless); 5.25" bay: for slim optical disc drive only;
M.2-2280	2 x on mainboard for SSD NVMe (PCle 3.0 x4; up to 32Gbit/s)
Slots	
PCI-Express 3.0 x4 (mech. x16)	1 x (150 mm / 5.91 inch)
PCI-Express 3.0 x16	1 x (210 mm / 8.27 inch) Low profile or full height (via Riser card), optional
M.2-2230	on mainboard for WLAN/Bluetooth module
Graphics on board	
	Intel® UHD Graphics P630, Intel® UHD Graphics 630
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Graphics on board	
Graphics features Graphics notes	Support for up to three independent displays DirectX® 12 HDCP support OpenCL™ 2.1 OpenGL® 4.5 For multi monitoring mode, graphics card and integrated graphics run in parallel DisplayPort interface supports Ver. 1.4 incl. Multi-Stream Digital audio formats are supported, including Dolby Digital Plus (7.1 channels) DVI-D interface supports audio output if connected to the HDMI interface of a display via suitable adapter cables (not included) Additional I/O connectors configurable, choice of DVI-D HDMI™ VGA USB Type-C™ (supports DisplayPort™ 1.4 and power delivery (PD) up to 15W) USB Type-C™ (supports DisplayPort™ 1.4 and power delivery (PD) up to 60W. Occupies PCle x16 slot) up to 1 GB dedicated video memory (main memory owned and locked for graphics use)
	Tested resolutions, depending on display type additional resolutions and frequencies possible Shared memory depending on main memory size and operating system Resolution (color depth up to 32 Bit/pixel) For TFT we recommend using 60Hz
Electrical values	
Power efficiency note	Power supply efficiency in % at 10% / 20% / 50% / 100% load 80Plus PLATINUM for 230V; 88/92/94/93 for 115V; 87/91/92/91
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	300 W
Power factor correction/active power	active
Monitor outlet	Switched
Noise emission	
Related Processors for noise	Intel® Xeon™ W-1290 processor
Standard noise emission	HDD, M.2 NVIDIA® Quadro® P1000 16 GB, ODD, Windows 10 According to ISO 7779:2010, ECMA-74
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	3.3 B / 20 dB(A) Bystander; 21 dB(A) Operator position (HDD+M.2)
Standard noise operation mode: HDD load	3.5 B / 22 dB(A) Bystander; 26 dB(A) Operator position (HDD+M.2)
Standard noise operation mode: Idle mode	3.2 B / 19 dB(A) Bystander; 21 dB(A) Operator position (HDD+M.2)
Standard noise operation mode: ODD load	4.5 B / 31 dB(A) Bystander; 37 dB(A) Operator position (HDD+M.2)
Standard noise operation mode: Office applications 2.0	3.2 B / 20 dB(A) Bystander; 21 dB(A) Operator position (HDD+M.2)
Dimensions / Weight / Environmental	
Dimensions (W x D x H)	314 x 296 x 89 mm
	12.36 x 11.65 x 3.51 inch
Operating position	horizontal / vertical (optional, feet needed)
Weight	approx. 8 kg
Weight (lbs)	approx. 17.64 lbs

Dimensions / Weight / Environmental	
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 J5010
Model	DTG
Germany	TÜV GS
Europe	CE
USA/Canada	FCC Class B cTUVus
Global	RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronic equipment) Microsoft Operating Systems (HCT / HCL entry / WHQL) Microsoft Secured-core PC certification (for selected configurations) ENERGY STAR® 8.0, depending on configuration TCO Certified 8.0 (depending on configuration) EPEAT® Silver (dedicated regions), depending on configuration ENERGY STAR® compliance is an order option. Non ENERGY STAR/TCO/ EPEAT compliant products are marked at brand name with additional suffix "n".
Compliance link	https://sp.ts.fujitsu.com/sites/certificates
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 2019 Microsoft® Office Home and Business 2019 (A Microsoft Account is required to activate each copy of these products. For purchase and activation only in the region in which it was acquired.)
Security	
Physical Security	Kensington Lock support Eye for padlock Cable Cover (optional; covers and secures the ports and cables on rear side)
System and BIOS Security	Embedded security (TPM 2.0) EraseDisk Credential Guard Ready and Device Guard Capable (requires 8 GB or more system RAM and SSD PCIe NVME) Modern Standby ready (for configurations with NVMe SSD and w/o PCIe cards) 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) AuthConductor Client Basic (secure authentication solution)
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 14.0 (depending on processor)

Manageability	
Manageability software	DeskView Client
	DeskView Instant BIOS Management
DeskView components	BIOS Management incl. Security
	Inventory Management Driver Management
	Alarm Management
Supported standards	DMI (Desktop Management Interface)
	SMBIOS (System Management BIOS)
	PXE (Preboot Execution Environment)
	WMI (Windows Management Instrumentation)
	WBEM (Web Based Enterprise Management)
	CIM (Common Information Model)
Manageability link	http://www.fujitsu.com/fts/manageability
Miscellaneous	
	Keyboard on (Special Fujitsu keyboard required)
	Keyboard on with one key (KBPX Eco, KB521)
	Keyboard on with 2 keys (CTRL+CTRL) with PS2 or special USB keyboards
	Keyboard on with any key (USB)
	Thermal management
	Extended lifetime 24/7 (limited configurations)
Packaging information	
Packaging notes	printed user documentation is bleached in chlorine free process;
	Bulk packagaging for projects (optional)
Warranty	
Warranty period	3 years (depending on country)
Warranty type	Bring-In / Onsite Service (for countries within region EMEIA, for all other countries depending on local regulations)
Warranty Terms & Conditions	http://www.fujitsu.com/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 Services - the perfe	
Recommended Service	9x5, Onsite Response Time: Next Business Day
Spare Parts availability	5 years after end of product life
Service Weblink	http://www.fujitsu.com/emeia/products/product-support-services/

Recommended Accessories

Blue LED Mouse M960 The Blue LED Mouse M960 comes in a slim design with proven Fujitsu Order Code: S26381-K470-L100 engineering quality. The track on glass Blue LED sensor enables ultra precise switchable resolution at 1,000, 1,600 and 2,000 dpi. Blue LED Mouse M960 makes your life easier because it's tailor-made for right handed users. It just feels great in your hand. SpaceMouse Pro Using the SpaceMouse™ Pro 3D mouse to navigate 3D models or Order Code: environments is as simple as holding them in your hand. A slight S26381-K459-L100 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. S26381-K955-L4** (**: Keyboard KB955 The KB955 is a very flat keyboard with extra low keys and spill-resistant

helps the liquid to flow away.

protection. The elegant design and top-quality construction makes the

KB955 the ideal input device for any PC or Notebook user. If you accidently spill some water or coffee onto the keyboard, this special construction

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Country specific variation)

More information

Fujitsu products, solutions & services

In addition to the FUJITSU Workstation CELSIUS J5010, 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 J5010, 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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