

Fujitsu recommends Windows.

# Data Sheet

## FUJITSU CELSIUS W520 Long Lifecycle Workstation

Combines Longevity with Workstation performance

If you need a powerful entry-level workstation, Fujitsu's CELSIUS W520 Long Lifecycle is the ideal choice. Comprehensive ISV certifications ensure your professional applications run smoothly. Your workplace is silent and user-friendly thanks to best-in-class noise emissions. Plus, the cold plug access at the front of the workstation lets you expand your storage capacity or change drives for enhanced working flexibility. It also supports your Long-term projects with stable functions and extended product availability.

### Long lifecycle

Continuity and availability for long-term projects

- Microsoft® Windows XP driver support extends the lifetime, 7 slots in total, 2 PCI slots

### Powerful workstation

Get more done in less time

- The fastest available processors, graphics cards and hard disk drives for entry-level 3D/CAD or DCC applications

### Quality

Highest quality and reliability for continuous productivity

- Designed and manufactured in Germany

### Leading workstation application certification

Maximum compatibility and performance with customer-preferred applications

- Full support for ISV applications and easy integration into existing IT environments

### Easy and rapid change of hard disk drives

Quick upgrades and changes of hard disk drives

- Cold plug access at front



# Components

<b>Processor</b>	Intel® Core™ i3-3220 processor (2 Cores / 4 Threads, 3.30 GHz, 3 MB, Intel® HD Graphics 2500)
	Intel® Xeon® processor E3-1275v2 (4 Cores / 8 Threads, 3.50 GHz, up to 3.9 GHz, 8 MB, Intel® HD Graphics P4000)
	Intel® Xeon® processor E3-1225v2 (4 Cores / 4 Threads, 3.20 GHz, up to 3.6 GHz, 8 MB, Intel® HD Graphics P4000)
	Intel® vPro™ with all Intel® Xeon® processors
<b>Operating systems</b>	
<b>Operating system</b>	Windows 8.1 Pro 64-bit Windows 8.1 64-bit Windows 7 Professional 64-bit Windows 7 Professional 32-bit
<b>Operating system compatible</b>	Windows® XP Linux
<b>Operating system notes</b>	Certified for Red Hat® Enterprise Linux Certified for SUSE Enterprise Desktop Certified for SUSE Enterprise Server For some configurations third party drivers are currently not available or configuration restrictions may apply. Limited Windows® XP support. Microsoft discontinued Windows® XP certification on system level, basic drivers via <a href="http://support.ts.fujitsu.com">http://support.ts.fujitsu.com</a>
<b>Memory modules</b>	
	4 GB (1 module(s) 4 GB) DDR3, unbuffered, ECC, 1,600 MHz, PC3-12800, DIMM
	4 GB (1 module(s) 4 GB) DDR3, unbuffered, non-ECC, 1,600 MHz, PC3-12800, DIMM
	8 GB (1 module(s) 8 GB) DDR3, unbuffered, ECC, 1,600 MHz, PC3-12800, DIMM
	8 GB (1 module(s) 8 GB) DDR3, unbuffered, non-ECC, 1,600 MHz, PC3-12800, DIMM
<b>Graphics</b>	
	Ultra-high-end 3D: NVIDIA® Quadro® K5000, 4 GB, 1,536 cores, PCIe x16, 1x Dual Link DVI-I, DVI-D, 2x DisplayPort
	High-end 3D: AMD FirePro™ W7000, 4 GB, 1,280 stream processors, PCIe x16, 4 x DisplayPort
	High-end 3D: NVIDIA® Quadro® K4000, 3 GB, 768 cores, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort
	Midrange 3D: NVIDIA® Quadro® K2000D, 2 GB, 384 cores, PCIe x16, 2x Dual Link DVI-I
	Midrange 3D: NVIDIA® Quadro® K2000, 2 GB, 384 cores, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort
	Midrange 3D: AMD FirePro™ W5000, 2 GB, 768 cores, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort
	Entry 3D: AMD FirePro™ V4900, 1 GB, 480 stream processors, PCIe x16, 1x Dual Link DVI-I, 2x DisplayPort
	Entry 3D: NVIDIA® Quadro® K600, 1 GB, 192 cores, PCIe x16, 1x Dual Link DVI-I, 1x DisplayPort
	Entry 3D: AMD FirePro™ V3900, 1 GB, 480 stream processors, PCIe x16, 1x Dual Link DVI-I, 1x DisplayPort
	Entry 3D: NVIDIA® Quadro® 410, 512 MB, 192 cores, PCIe x16, 1x DVI-I, 1x DisplayPort
	Professional 2D: NVIDIA® NVS 510, 2 GB, 16 cores, PCIe 2.0 x16, 4x miniDP
	Professional 2D: NVIDIA® NVS 310, 512 MB, 16 cores, PCIe 2.0 x16, 2x DisplayPort
	Professional 2D: NVIDIA® NVS 300, 1 GB, 16 cores, PCIe 2.0 x16, 2x LFH59 (DP/DVI-I)
	Professional 2D: NVIDIA® NVS 300, 512 MB, 16 cores, PCIe 2.0 x16, 2x LFH59 (DP/DVI-I)
	Remote Graphics: CELSIUS RemoteAccess Dual Card, PCIe x1, 2x miniDP, PCoIP
	Remote Graphics: CELSIUS RemoteAccess Quad Card, PCIe x1, 4x miniDP, PCoIP

<b>Hard disk drives (internal)</b>	SSHD SATA III, 7,200 rpm, 1,000 GB, 3.5-inch
	SSHD SATA III, 5,400 rpm, 500 GB, 2.5-inch
	SSD SATA III Premium, 512 GB, 2.5-inch
	SSD SATA III Premium, 256 GB, 2.5-inch
	SSD SATA III Premium, 128 GB, 2.5-inch
	SSD SATA III, 256 GB, 2.5-inch, SED
	SSD SATA III, 256 GB, 2.5-inch
	SSD SATA III, 128 GB, 2.5-inch, SED
	SSD SATA III, 128 GB, 2.5-inch
	HDD SATA III, 10,000 rpm, 1,000 GB, 2.5-inch, business critical
	HDD SATA III, 10,000 rpm, 600 GB, 2.5-inch
	HDD SATA III, 10,000 rpm, 500 GB, 2.5-inch, business critical
	HDD SATA III, 7,200 rpm, 4,000 GB, 3.5-inch, business critical
	HDD SATA III, 7,200 rpm, 3,000 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, 3.5-inch
	HDD SATA III, 7,200 rpm, 1,000 GB, 3.5-inch, business critical
	HDD SATA III, 7,200 rpm, 1,000 GB, 3.5-inch
HDD SATA III, 7,200 rpm, 500 GB, 3.5-inch, business critical	
HDD SATA III, 7,200 rpm, 500 GB, 3.5-inch	
<b>Hard disk notes</b>	<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>SSHD (Solid State Hard Disk, Hybrid drive)</p> <p>SED (Self-Encrypting Drive)</p> <p>SSD (Solid State Disk)</p>
<b>Drives (optional)</b>	BD Triple Writer SATA slim (tray)
	DVD-ROM
	DVD Super Multi
	MultiCard Reader 24in1 USB 2.0 3.5"
<b>Interface add on cards/components (optional)</b>	WLAN 802.11 a/g/n (2x2), (dedicated regions only, not for Indonesia)
	Parallel Interface
	Gigabit Ethernet PCIe x1, DS
	eSATA Interface
	Dual serial card PCIe x1
<b>Base unit</b>	CELSIUS W520power-L
<b>Mainboard</b>	
<b>Mainboard type</b>	D3167
<b>Formfactor</b>	ATX
<b>Chipset</b>	Intel® C216
<b>Processor socket</b>	LGA 1155
<b>Processor quantity maximum</b>	1
<b>Memory slots</b>	4 DIMM (DDR3) ECC/non-ECC
<b>Supported capacity RAM (max.)</b>	32 GB
<b>Memory frequency</b>	1,600 MHz
<b>Memory notes</b>	<p>Dual channel support.</p> <p>For dual channel performance, a minimum of 2 memory modules have to be ordered. Capacity per channel has to be the same.</p>
<b>LAN</b>	10/100/1,000 MBit/s Intel® 82579 LM

**Mainboard**

BIOS features	BIOS Flash EPROM update by software Recovery BIOS Unified Extensible Firmware Interface (UEFI)
Audio type	On board
Audio codec	Conexant CX20642
Audio features	Internal speaker supports audio playback, High Definition audio, 5.1 surround sound

**I/O controller on board**

Serial ATA total	6
thereof SATA III	2
thereof eSATA	2 (optional)
Controller functions	Serial ATA II (3 Gbit) Serial ATA III (6 Gbit) NCQ AHCI RAID 0/1/5/10 (Windows XP not supported) Intel® Smart Response Technology (depending on CPU)
SATA RAID support	0, 1, 10, 5

**Interfaces**

Audio: in (rear)	2
Audio: out (rear)	1
Audio: in	1
Audio: out	1
Internal speakers	1
USB 2.0 total	10
USB 3.0 total	4
USB front	2x 2.0/ 2x 3.0
USB rear	6x 2.0 / 2x 3.0
USB internal	2
VGA	1 (depends on processor, via DVI to VGA adapter)
DisplayPort	1
DVI	1 (depends on processor)
Serial (RS-232)	1 (9pin, 16 byte FIFO, 16550 compatible)
Mouse / Keyboard (PS/2)	2
Ethernet (RJ-45)	1
Parallel	1, optional (25pin with EPP and ECP)
eSATA	1 (optional)
Interface Module notes	Anytime USB charge functionality

**Drive bays**

Drive bays total	8
3.5-inch internal bays	4
3.5-inch external bays	2
5.25-inch external bays	2
Drive bay notes	Up to 4x 2.5-inch HDDs (cold plug) or Up to 4x 3.5-inch HDDs (cold plug) or Up to 2x 2.5-inch and 2x 3.5-inch HDDs (cold plug)

**Slots**

PCI-Express 3.0 x16	1 x (312 mm / 12.29 inch) Full height
PCI-Express 2.0 x4 (mech. x16)	1 x (210 mm / 8.27 inch) Full height
PCI-Express x1	3 x (312 mm (2x) / 170 mm (1x) mm / 12.29 inch (2x) / 6.69 inch (1x) inch) Full height
PCI (32-bit / 33 MHz)	2 x (312 mm / 12.29 inch) Full height

**Graphics on board**

Shared video memory	up to 1,759 MB
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**Graphics on board**

<b>TFT resolution (VGA)</b>	1,024 x 768 pixel 1,280 x 1,024 pixel 1,360 x 768 pixel 1,440 x 900 pixel 1,600 x 900 pixel 1,600 x 1,200 pixel 1,680 x 1,050 pixel 1,920 x 1,080 pixel
<b>TFT resolution (DVI)</b>	1,360 x 768 pixel 1,440 x 900 pixel 1,600 x 900 pixel 1,680 x 1,050 pixel 1,920 x 1,080 pixel 1,920 x 1,200 pixel
<b>TFT resolution (DisplayPort)</b>	1,360 x 768 pixel 1,440 x 900 pixel 1,600 x 900 pixel 1,680 x 1,050 pixel 1,920 x 1,080 pixel 1,920 x 1,200 pixel 2,560 x 1,440 pixel 2,560 x 1,600 pixel
<b>Graphics features</b>	Dual display support DirectX® 10.1 or DirectX® 11 (depending on CPU) HDCP support Open GL® 3.1 Open CL® 1.1 For multi monitoring mode, graphics card and integrated graphics run in parallel (Microsoft® Windows® 7 or Windows 8)
<b>Graphics notes</b>	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**

<b>Power efficiency note</b>	power supply efficiency (at 230V; 20% / 50% / 100% load) : 87% / 90% / 87%
<b>Rated voltage range</b>	100 V - 240 V
<b>Rated frequency range</b>	50 Hz - 60 Hz
<b>Operating voltage range</b>	90 V - 264 V
<b>Operating line frequency range</b>	47 Hz - 63 Hz
<b>Max. output of single power supply</b>	500 W
<b>Power factor correction/active power</b>	active
<b>Power supply output</b>	1 graphics power rail (6pin connector / 17A@12V)

**Noise for standard configuration (HDD, ODD)**

<b>Noise Operation mode 4: High load</b>	18 dB(A)
<b>Noise Operation mode 5: Office applications</b>	18 dB(A)
<b>Standard noise emission</b>	2x2 GB, HDD, ODD, Windows According to ISO 7779:2010, ECMA-74
<b>Standard noise notes / description</b>	A-weighted sound power level LwAd (in B) / Workplace related A-weighted sound pressure level LpAm (in dB(A)) (depending on configuration)
<b>Standard noise operation mode: HDD load</b>	4.0 B / 24 dB(A) Bystander position
<b>Standard noise operation mode: Idle mode</b>	3.6 B / 21 dB(A) Bystander position
<b>Standard noise operation mode: ODD load</b>	4.7 B / 30 dB(A) Bystander position

**Dimensions / Weight / Environmental**

<b>Dimensions (W x D x H)</b>	186 x 481 x 430 mm
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**Dimensions / Weight / Environmental**

Operating position	Vertical / horizontal
Weight	approx. 16 kg
Weight notes	Actual weight may vary depending on configuration
Operating ambient temperature	10 - 35 °C
Operating relative humidity	5 - 85 % (relative humidity)

**Compliance**

Product	CELSIUS W520 POWER
Model	ETNA-S-D3167
Germany	TÜV GS
Europe	CE Nordic Swan
Global	RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronic equipment) Microsoft Operating Systems (HCT / HCL entry / WHQL) ENERGY STAR® 6.0 (dedicated regions) EPEAT® Gold (dedicated regions)
Compliance notes	Energy Star compliance may vary depending on actual configuration
Compliance link	<a href="http://globalsp.ts.fujitsu.com/sites/certificates">http://globalsp.ts.fujitsu.com/sites/certificates</a>

**Security**

Physical Security	Kensington Lock support Eye for padlock Seal option Intrusion switch Integrated cabinet lock (optional)
System and BIOS Security	EraseDisk Boot sector virus protection Write protect option for the Flash EPROM Embedded security (TPM 1.2) 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) SmartCase Logon+ (optional)

**Additional Software**

Additional software (preinstalled)	Workplace Protect (secure authentication solution) Adobe® Reader® (pdf reader) McAfee Multi Access Security (anti-virus and internet security software; 60 days trial version) Win7: Fujitsu Recovery (hard disk based recovery) Win8: Microsoft Push Button Recovery (hard disk based recovery) Microsoft Office (buy license to activate the pre-installed 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

**Miscellaneous**

Keyboard on (Special Fujitsu keyboard required)  
Thermal management  
Extended lifetime  
Rack mountable (5U)

**Manageability**

<b>Manageability technology</b>	DeskUpdate Driver management PXE 2.1 Boot code Wake up from S5 (off mode) Intrusion switch iAMT 8.0 (depending on CPU) WoL (Wake on LAN)
<b>Manageability software</b>	DeskView 10.x client management including:
<b>DeskView components</b>	On/Offline remote client management Detailed system inventory management and reports BIOS Management Remote power management System notifications Security Remote Control DeskView Helpdesk Integration WoL (Wake on LAN)

**Input device / components**

	Optical USB tilt wheel mouse
<b>Input devices (optional)</b>	Optical USB/PS2 tilt wheel mouse Laser Mouse GL9000 Mouse M440 ECO Space Explorer USB KBPC PX ECO Keyboard

**Warranty**

<b>Standard Warranty</b>	3 years (depending on country)
<b>Service level</b>	Bring-In / Onsite Service (depending on country)
<b>Warranty Terms &amp; Conditions</b>	<a href="http://support.ts.fujitsu.com/warranty">http://support.ts.fujitsu.com/warranty</a>

**Maintenance and Support Services - the perfect extension**

<b>Recommended Service</b>	9x5, Response Time: Next Business Day
<b>Spare Parts availability</b>	5 years after end of product life
<b>Service Weblink</b>	<a href="http://www.fujitsu.com/fts/services/support">http://www.fujitsu.com/fts/services/support</a>

## Recommended Accessories

**Display P23T-6P FPR 3D**

If you're a pixel, color and performance-hungry professional using demanding 2D and 3D applications, FUJITSU Display P23T-6 FPR 3D is the perfect choice for you. The combination of the stunning IPS graphic panel with latest 3D FPR technology, unique energy efficiency features and sophisticated ergonomics make this display really unrivalled.

Order Code:  
S26361-K1433-V170

## More information

### Fujitsu OPTIMIZATION Services

In addition to the FUJITSU CELSIUS W520 Long Lifecycle, 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/services/computing/](http://www.fujitsu.com/global/services/computing/)

#### Software

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

### More information

To learn more about the FUJITSU CELSIUS W520 Long Lifecycle, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website. [www.fujitsu.com/fts/CELSIUS](http://www.fujitsu.com/fts/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>



**Green  
Policy  
Innovation**

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