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Fujitsu recommends Windows 8 Pro.

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 continouos 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

Processor	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
Operating systems	
Operating system	Windows 8.1 Pro 64-bit
	Windows 8.1 64-bit
	Windows 8 Pro 64-bit
	Windows 8 64-bit
	Windows 7 Professional 64-bit
	Windows 7 Professional 32-bit
Operating system compatible	Windows® XP
	Linux
Operating system notes	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 http://support.ts.fujitsu.com
Memory modules	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
Graphics	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: NVIDIA® Quadro® 2000, 1 GB, 192 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: NVIDIA® Quadro® 600, 1 GB, 96 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 Gen2 x16, 4x miniDP
	Professional 2D: NVIDIA® NVS 310, 512 MB, 16 cores, PCIe Gen2 x16, 2x DisplayPort
	Professional 2D: NVIDIA® NVS 300, 512 MB, 16 cores, PCIe Gen2 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

Hard disk drives (internal)	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
	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
Hard disk notes	One Gigabyte equals one billion bytes, when referring to hard disk drive capacity.
	24/7 ready (business critical HDDs required)
	Up to 20 GB of HDD space is reserved for system recovery
	SSHD (Solid State Hard Disk, Hybrid drive)
	SED (Self-Encrypting Drive)
	SSD (Solid State Disk)
Drives (optional)	BD Triple Writer SATA slim (tray)
	DVD-ROM
	DVD Super Multi
	MultiCard Reader 24in1 USB 2.0 3.5"
Interface add on cards/components (optional)	
	WLAN 802.11 abgn (2x2), (dedicated regions only, not for Indonesia)
	Parallel Interface
	Gigabit Ethernet PCIe x1, DS
	eSATA Interface
	Dual serial card PCIe x1

Base unit

Base unit	CELSIUS W520power-L
Mainboard	
Mainboard type	D3167
Formfactor	ATX
Chipset	Intel® C216
Processor socket	LGA 1155
Processor quantity maximum	1
Memory slots	4 DIMM (DDR3) ECC/non-ECC
Supported capacity RAM (max.)	32 GB
Memory frequency	1,600 MHz

Mainboard

Memory notes	Dual channel support. For dual channel performance, a minimum of 2 memory modules have to be ordered. Capacity per channel has to be the same.
LAN	10/100/1,000 MBit/s Intel® 82579 LM
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

Input device / components

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

Drive bays

Drive bays total	8
3.5-inch internal bays	4
3.5-inch external bays	2

Drive bays

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
TFT resolution (VGA)	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
TFT resolution (DVI)	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
TFT resolution (DisplayPort)	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
Graphics features	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)
Graphics notes	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 (at 230V; 20% / 50% / 100% load) : 87% / 90% / 87%
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	500 W
Power factor correction/active power	active
Power supply output	1 graphics power rail (6pin connector / 17A@12V)

Noise for standard configuration (HDD, ODD)

Noise Operation mode 4: High load	18 dB(A)

Noise for standard configuration (HDD, ODD)

Noise Operation mode 5: Office applications	18 dB(A)
Standard noise emission	2x2 GB, HDD, ODD, Windows 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)) (depending on configuration)
Standard noise operation mode: HDD load	4.0 B / 24 dB(A) Bystander position
Standard noise operation mode: Idle mode	3.6 B / 21 dB(A) Bystander position
Standard noise operation mode: ODD load	4.7 B / 30 dB(A) Bystander position

Dimensions / Weight / Environmental

Dimensions (W x D x H)	186 x 481 x 430 mm
Operating position	Vertical / horizontal
Weight	approx. 16 kg
Weight notes	Actual weight may vary depending on configuration
Operating ambient temperature	10 - 35 ℃
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® 5.0 EPEAT® Gold (dedicated regions)
Compliance notes	Energy Star compliance may vary depending on actual configuration
Compliance link	http://globalsp.ts.fujitsu.com/sites/certificates

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

Security

Physical Security	Kensington Lock support Eye for padlock Seal option Intrusion switch Integrated cabinet lock (optional)

Security

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)

Manageability

Manageability technology	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)
Manageability software	DeskView 10.x client management including:
DeskView components	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)

Miscellaneous

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

Packaging information

Packaging dimension (mm)	597 x 397 x 555 mm
Packaging dimension (inch)	23.5 x 15.63 x 21.85 inch
Max. quantity / pallet	24
Packaging notes	printed user documentation is bleached in chlorine free process

Warranty

Standard Warranty	3 years (depending on country)
Service level	Bring-In / Onsite Service (depending on country)
Warranty Terms & Conditions	http://support.ts.fujitsu.com/warranty

Maintenance and Support Services - the perfect extension

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

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

Fujitsu recommends Windows 8 Pro.

More information

Fujitsu OPTIMIZATION Services

In addition to 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/

Software

www.fujitsu.com/software/

More information

Learn more about Fujitsu CELSIUS W520 Long Lifecycle, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
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

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