

Fujitsu recommends Windows 8 Pro.

# Data Sheet

## Fujitsu CELSIUS R930 Workstation

### Uncompromising Workstation Performance for Extreme Demands

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Fujitsu's most performing workstation the CELSIUS R930 is designed to surpass all your expectations. This high-end dual processor workstation is individually configurable for the most power hungry 24/7 operating environments. Incorporating latest NVIDIA GRID™ graphics virtualization cards or Intel® Xeon Phi™ coprocessor cards, the CELSIUS R930 is well prepared for workstation virtualization and High Performance Computing. Comprehensive ISV certifications ensure smooth application operation.



#### Performance

Higher productivity

- Future Intel® Xeon® processors, high performing graphics subsystems, quad-channel memory technology and high-speed hard disk drives

#### Workstation virtualization in the datacenter

Ideal for workstation consolidation due to multiple users per workstation, increased data security and protection against theft or damage

- Rack-mountable and incorporating latest NVIDIA GRID™ or Intel® Xeon Phi™ graphics or compute cards

#### Reliable and Ergonomic

Noise-reduced system engineered in Germany and System stability for the complete lifecycle and 24/7 operation

- Optimized thermal management, high product standards thanks to top-quality components and comprehensive testing in certified in-house laboratories

#### Certification of workstation applications

Stability, compatibility and performance for the main workstation applications

- Comprehensive support for ISV applications and ease of integration into existing IT networks

#### Expandability

Excellent expandability for future demands

- Increased memory capacities of up to 512 GB, Up to three ultra-high-end or four mid-range graphics and eight hard disk drives



# Components

<b>Processor</b>	Intel® Xeon® processor E5-2697v2 (12 cores, 2.70 GHz, 30 MB) Intel® Xeon® processor E5-2695v2 (12 cores, 2.40 GHz, 30 MB) Intel® Xeon® processor E5-2690v2 (10 Cores, 3.00 GHz, 25 MB) Intel® Xeon® processor E5-2687Wv2 (8 Cores, 3.40 GHz, 20 MB) Intel® Xeon® processor E5-2680v2 (10 Cores, 2.80 GHz, 25 MB) Intel® Xeon® processor E5-2670v2 (10 Cores, 2.50 GHz, 25 MB) Intel® Xeon® processor E5-2667v2 (8 Cores, 3.30 GHz, 25 MB) Intel® Xeon® processor E5-2660v2 (10 Cores, 2.20 GHz, 25 MB) Intel® Xeon® processor E5-2650v2 (8 Cores, 2.60 GHz, 20 MB) Intel® Xeon® processor E5-2650Lv2 (10 Cores, 1.70 GHz, 25 MB) Intel® Xeon® processor E5-2643v2 (6 Cores, 3.50 GHz, 25 MB) Intel® Xeon® processor E5-2640v2 (8 Cores, 2.00 GHz, 20 MB) Intel® Xeon® processor E5-2637v2 (4 Cores, 3.50 GHz, 15 MB) Intel® Xeon® processor E5-2630v2 (6 Cores, 2.60 GHz, 15 MB) Intel® Xeon® processor E5-2630Lv2 (6 Cores, 2.40 GHz, 15 MB) Intel® Xeon® processor E5-2620v2 (6 Cores, 2.10 GHz, 15 MB) Intel® Xeon® processor E5-2609v2 (4 Cores, 2.50 GHz, 10 MB) Intel® Xeon® processor E5-2603v2 (4 Cores, 1.80 GHz, 10 MB) 2nd Intel® Xeon® processor E5-2640v2 (8 Cores, 2.00 GHz, 20 MB) Intel® Xeon® processor E5 family featuring Intel® vPro™ Technology
<b>Operating systems</b>	
<b>Operating system</b>	Windows 8 Pro 64-bit Windows® 7 Professional 64-bit
<b>Operating system compatible</b>	Windows® Server 2008 R2 Windows® 7 Professional 32-bit Windows® XP Professional x64 Edition 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. SCU ports are not supported for Windows® XP 32bit (restriction by Intel®). Therefore an additional storage controller (D2607 or D2616) is necessary. 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, ECC, 1866 MHz, PC3-14900 8 GB (1 module(s) 8 GB) DDR3, registered, ECC, 1866 MHz, PC3-14900 16 GB (1 module(s) 16 GB) DDR3, registered, ECC, 1866 MHz, PC3-14900 32 GB (1 module(s) 32 GB) DDR3, registered, ECC, 1600 MHz, PC3-12800

<b>Graphics</b>	Ultra-high-end 3D: NVIDIA® Quadro® K6000, 12 GB, 2880 cores, PCIe x16, 1x Dual Link DVI-I, 1x Dual Link DVI-D, 2x DisplayPort
	GPU computing card: NVIDIA® GRID K1 16GB A, 16 GB, 768 cores, PCIe x16
	GPU computing card: NVIDIA® GRID K2 8GB A, 8 GB, 3072 cores, PCIe x16
	Ultra-high-end 3D: NVIDIA® Quadro® 6000, 6 GB, 448 cores, PCIe x16, 1x DVI-I, 2x DisplayPort
	Ultra-high-end 3D: NVIDIA® Quadro® K5000, 4 GB, 1536 cores, PCIe x16, 1x Dual Link DVI-I, DVI-D, 2x DisplayPort
	High-end 3D: AMD FirePro™ W8000, 4 GB, 1792 stream processors, PCIe x16, 4 x DisplayPort
	High-end 3D: AMD FirePro™ W7000, 4 GB, 1280 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 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)
	GPU computing card: NVIDIA® Tesla™ K20, 5 GB, 2496 cores, PCIe x16
	Remote Graphics: CELSIUS RemoteAccess Dual Card, PCIe x1, 2x miniDP, PCoIP
Remote Graphics: CELSIUS RemoteAccess Quad Card, PCIe x1, 4x miniDP, PCoIP	
<b>Personal Supercomputing</b>	Coprocessor: Intel® Xeon Phi™ Coprocessor 3120A, PCIe x16
	Coprocessor: Intel® Xeon Phi™ Coprocessor 5110P, PCIe x16
<b>Hard disk drives (internal)</b>	SSD SATA III Premium, 256 GB, 2.5-inch
	SSD SATA III Premium, 128 GB, 2.5-inch
	SSD SATA III, 512 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, 10000 rpm, 1000 GB, 2.5-inch, business critical
	HDD SATA III, 10000 rpm, 500 GB, 2.5-inch, business critical
	HDD SATA III, 7200 rpm, 4000 GB, 3.5-inch, business critical
	HDD SATA III, 7200 rpm, 3000 GB, 3.5-inch, business critical
	HDD SATA III, 7200 rpm, 2000 GB, 3.5-inch
	HDD SATA III, 7200 rpm, 1000 GB, 3.5-inch, business critical
	HDD SATA III, 7200 rpm, 1000 GB, 3.5-inch
	HDD SATA III, 7200 rpm, 500 GB, 3.5-inch, business critical
	HDD SATA III, 7200 rpm, 500 GB, 3.5-inch
	HDD SATA II, 7200 rpm, 2000 GB, 3.5-inch, business critical
	HDD SAS, 15000 rpm, 300 GB, 2.5-inch
	HDD SAS, 10000 rpm, 600 GB, 2.5-inch
	HDD SAS, 10000 rpm, 450 GB, 2.5-inch
	HDD SAS, 10000 rpm, 300 GB, 2.5-inch
<b>Hard disk notes</b>	*Disk imaging software of the customer must be 4k sector size / advanced format ready One Gigabyte equals one billion bytes, when referring to hard disk drive capacity. 24/7 ready (business critical HDDs required)
<b>Drives (optional)</b>	BD Triple Writer SATA slim (tray)
	DVD-ROM
	DVD Super Multi
	MCR 24in1 & USB 3.0 front con., 3.5"
	MultiCard Reader 24in1 USB 2.0 3.5"

<b>SCSI / SAS Controller</b>	RAID Contr BBU Upgrade for RAID 5/6 Ctrl RAID 5/6 Ctrl. 6 Gbit/s 8 ports ext. 512 MB Cache RAID 0/1 Ctrl. 6 Gbit/s 8 ports ext.
<b>Interface add on cards/components (optional)</b>	WLAN III, 802.11g/Draft-n (Windows only, dedicated regions only) WLAN 802.11 abgn (2x2), (dedicated regions only) USB 3.0 PCIe x1 Serial Interface FH Gigabit Ethernet PCIe x1, DS eSATA Interface Dual serial card PCIe x1 Dual 10 Gigabit Ethernet PCIe x8
<b>Interface add on/component note</b>	1x eSATA interface already on board
<b>Base unit</b>	CELSIUS R930 CELSIUS R930 power
<b>Mainboard</b>	
<b>Mainboard type</b>	D3118
<b>Formfactor</b>	proprietary
<b>Chipset</b>	Intel® C602
<b>Processor socket</b>	Socket R
<b>Processor quantity maximum</b>	2
<b>Memory slots</b>	16 (8 per processor) DIMM (DDR3) registered
<b>Supported capacity RAM (max.)</b>	512 GB
<b>Memory notes</b>	In configurations with 4 GB and more the visible memory may be reduced to approximately 3.5 GB or less (for 32-bit operating systems) and configurations with 8 GB the visible memory may be reduced to approximately 7.5 GB or less (depending on system configuration). Large memory may lead to long boot times. When using a 32-bit operating system the maximum of memory might be 900 MB.
<b>LAN</b>	2x Built-in 10/100/1000 MBit/s Intel® 82579 LM and Intel® 82574L
<b>BIOS version</b>	AMI Aptio 4.6
<b>BIOS features</b>	BIOS Flash EPROM update by software Recovery BIOS Unified Extensible Firmware Interface (UEFI)
<b>Audio codec</b>	Conexant CX20642
<b>Audio features</b>	High Definition Audio
<b>I/O controller on board</b>	
<b>Serial ATA total</b>	7
<b>thereof SATA III</b>	2
<b>thereof eSATA</b>	1
<b>SATA RAID support</b>	0, 1, 10, 5
<b>SAS Controller type</b>	optional upgrade to 8 ports, Intel C606
<b>SAS RAID support</b>	0, 1, 10
<b>Interfaces</b>	
<b>Audio: in (rear)</b>	1
<b>Audio: out (rear)</b>	1
<b>Audio: in</b>	1
<b>Audio: out</b>	1
<b>Internal speakers</b>	1
<b>USB 2.0 total</b>	11
<b>USB 3.0 total</b>	2
<b>USB front</b>	4 (2x USB 3.0)

**Interfaces**

USB rear	6
USB internal	3, thereof 1 type A
Serial (RS-232)	
Mouse / Keyboard (PS/2)	1 / 1
Ethernet (RJ-45)	2
eSATA	1
Interface Module notes	Anytime USB charge functionality

**Drive bays**

Drive bays total	12
2.5-inch bays	8
3.5-inch internal bays	4
3.5-inch external bays	2
5.25-inch external bays	2
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

**Slots**

PCI-Express 3.0 x4	1 x (312 mm / 12.29 inch) Full height
PCI-Express 3.0 x4 (mech. x16)	1 x (312 mm / 12.29 inch) Full height
PCI-Express 3.0 x16	4 x (312 mm / 12.29 inch) Full height (2x PCIe 3.0x16 per processor)
PCI-Express 2.0 x4 (mech. x8)	1 x (140 mm / 5.51 inch) Full height
PCI (32-bit / 33 MHz)	1 x (312 mm / 12.29 inch) Full height

**Electrical values**

Power consumption note	400 W depending on configuration	550 W depending on configuration
Rated voltage range	100 V - 240 V	100 V - 240 V
Rated frequency range	50 Hz - 60 Hz	50 Hz - 60 Hz
Operating voltage range	100 V - 240 V	100 V - 240 V
Operating line frequency range	50 Hz - 60 Hz	50 Hz - 60 Hz
Max. output of single power supply	800 W up to 90% efficiency	1100 W up to 90% efficiency
Power factor correction/active power	active	active

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

Related Processors for noise	Intel® Xeon® E5-2643v2 w/ Nvidia® Quadro K4000	Intel® Xeon® E5-2643v2 w/ Nvidia® Quadro K4000
Standard noise emission	According to ISO 7779:2010, ECMA-74	According to ISO 7779:2010, ECMA-74
Standard noise notes / description	A-weighted sound power level L <sub>wad</sub> (in B) / Workplace related A-weighted sound pressure level L <sub>pAm</sub> (in dB(A))	A-weighted sound power level L <sub>wad</sub> (in B) / Workplace related A-weighted sound pressure level L <sub>pAm</sub> (in dB(A))
Standard noise operation mode: CPU 50% load	4.0 B / 23 dB(A) Bystander position	4.0 B / 23 dB(A) Bystander position
Standard noise operation mode: CPU 90% load	4.3 B / 26 dB(A) Bystander position	4.3 B / 26 dB(A) Bystander position
Standard noise operation mode: HDD load	4.0 B / 23 dB(A) Bystander position	4.0 B / 23 dB(A) Bystander position
Standard noise operation mode: Idle mode	3.9 B / 22 dB(A) Bystander position	3.9 B / 22 dB(A) Bystander position
Standard noise operation mode: ODD load	4.6 B / 29 dB(A) Bystander position	4.6 B / 29 dB(A) Bystander position
Standard noise operation mode: Office applications 2.0	3.9 B / 22 dB(A) Bystander position	3.9 B / 22 dB(A) Bystander position

**Dimensions / Weight / Environmental**

Dimensions (W x D x H)	186 x 618 x 430 mm
Operating position	Vertical / horizontal
Weight	20 kg
Weight notes	Actual weight may vary depending on configuration

**Dimensions / Weight / Environmental**

Operating ambient temperature	10 - 35 °C
Operating relative humidity	5 - 85 % (relative humidity)

**Compliance**

Product	CELSIUS R930	CELSIUS R930 Power
Model	ETNA_L-D3118	
Germany	GS depending on configuration	
Europe	CE	
USA/Canada	cCSAus FCC Class B	
Global	RoHS (EU & China) Medical EMC standard IEC60601-1-2 in combination with medical kit Microsoft Operating Systems (HCT / HCL entry / WHQL) ENERGY STAR® 5.0 in progress WEEE (Waste electrical and electronic equipment) EPEAT® Silver (dedicated regions) (planned)	
Japan	VCCI	
Russia	EAC	
South Korea	KCC	
China	CCC (planned)	
Taiwan	BSMI (planned)	
Saudi Arabia	SASO	
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 Intrusion switch Integrated cabinet lock (optional)
System and BIOS Security	Write protect option for the Flash EPROM Boot protection for floppy disk / CD drive and write protection for floppy disk drive Dynamic USB security for full hardware USB protection Control of all USB interfaces Trusted platform module (TPM 1.2) EraseDisk
User Security	User and supervisor BIOS password Access protection via external SmartCard reader (optional) Access protection via internal SmartCard reader (optional)

**Additional Software**

Additional software (preinstalled)	Workplace Protect (secure authentication solution) McAfee Multi Access Security (anti-virus and internet security software; 60 days trial version) Microsoft Office (buy license to activate the pre-installed Microsoft Office)
Additional software (optional)	Drivers & Utilities DVD (DUDVD) Windows® 8 and Windows® 7

**Miscellaneous**

	Rack mountable (5U)	Rack mountable (5U)
Spare part availability	5 years	5 years

**Manageability**

Manageability technology	DeskUpdate Driver management iAMT 8.0 (depending on CPU)
Manageability software	DeskView Client DeskView Instant BIOS Management DeskView Integration for Symantec Management Platform

**Manageability**

<b>DeskView components</b>	Inventory Management BIOS Management Driver Management Security Management Alarm Management
<b>Supported standards</b>	WMI BootP (made4you) PXE WoL (Wake on LAN)
<b>Manageability link</b>	<a href="http://www.fujitsu.com/fts/manageability">http://www.fujitsu.com/fts/manageability</a>

**Input device / components**

	Optical USB wheel mouse
<b>Input devices (optional)</b>	Optical USB/PS2 tilt wheel mouse Space Explorer USB Keyboard

**Warranty**

<b>Standard Warranty</b>	3 years (depending on country)
<b>Service level</b>	Bring-In / Onsite Service (for countries within region FTS CEMEA&I, for all other countries depending on local regulations, minimum: 3 years material warranty)
<b>Warranty Terms &amp; Conditions</b>	<a href="http://support.ts.fujitsu.com/warranty">http://support.ts.fujitsu.com/warranty</a>
<b>Maintenance and Support Services - the perfect extension</b>	
<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

**Kensington Combination Ultra**

The Fujitsu Kensington Combination Ultra Laptop Lock protects your device from theft. The push button design offers one hand operation for ease of use and the four-wheel combination lock makes it nearly impossible to crack. Simply anchor it to any fixed structure to get Ultra security.

Order Code:  
S26361-F1650-L510

**Display P23T-6 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-K1370-V170

**Display P27T-7 LED**

Enjoy perfect picture quality with 3.7 Mio pixels, outstanding ergonomics and usability as well as comfortable energy saving solutions of this 68.5 cm (27-inch) widescreen Fujitsu P Line display.

Order Code:  
S26361-K1442-V140

**Wireless Mouse Touch WI910**

The Fujitsu Wireless Mouse Touch WI910 has a special touch sensitive surface that recognizes when your hand touches the mouse even before you move it. This provides nearly instantaneous wake-up from the intelligent energy saving sleep mode. Unbeatable responsiveness combines with features like switchable resolution, and three programmable buttons for a unique user experience.

Order Code:  
S26381-K465-L100

**Blue LED Mouse GL9000**

Blue LED Mouse GL9000 comes in a slim design with proven Fujitsu engineering quality. The state-of-the-art blue LED sensor enables ultra precise switchable resolution at 1,000, 1,500 and 2,000 dpi. Blue LED Mouse GL9000 makes your life easier because it's tailor-made for right handed users. It just feels great in your hand.

Order Code:  
S26381-K438-L100

**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 KB900**

The KB900 is a very flat keyboard with extra low keys and spill-resistant protection. The elegant design and top-quality construction makes the KB900 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-K560-L4\*\* (\*\*:  
Country specific variation)



# More information

## Fujitsu OPTIMIZATION Services

In addition to Fujitsu CELSIUS R930, 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

Learn more about Fujitsu CELSIUS R930, 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>



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