

Fujitsu recommends Windows® 7.

# Data Sheet

## Fujitsu CELSIUS W410 Workstation

The Low-cost Gateway to Workstation Performance

If your application requirements have outgrown the performance of a standard PC, the Fujitsu CELSIUS W410 is designed for you. This attractively-priced, compact workstation is individually configurable and allows easy tool-less expansion for greater working flexibility. Unique low-noise emissions and full ISV certification for your applications help you increase your productivity.

### Noise-reduced system engineered in Germany

Quiet and productive working environment

- Optimized thermal management, low-noise chassis and silent fans

### Advanced performance

Get more done in less time

- The latest processors and professional graphics cards

### Upgradeability

Minimum downtime in the event of rapid component upgrades

- Screw less access system design

### Leading workstation application certification

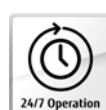
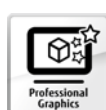
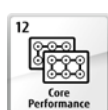
Maximum compatibility and performance with customer-preferred applications

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

### Built to order

Free configurability for all product lines

- Customer is given a system optimized for his requirements



# Components

<b>Processor</b>	Intel® Core™ i7-2600 processor (4 Cores / 8 Threads, 3.40 GHz, 8 MB, Intel® HD Graphics 2000) Intel® Core™ i5-2500 processor (4 Cores / 4 Threads, 3.30 GHz, 6 MB, Intel® HD Graphics 2000) Intel® Core™ i5-2400 processor (4 Cores / 4 Threads, 3.10 GHz, 6 MB, Intel® HD Graphics 2000) Intel® Core™ i3-2120 processor (2 Cores / 4 Threads, 3.30 GHz, 3 MB, Intel® HD Graphics 2000) Intel® Core™ i3-2100 processor (2 Cores / 4 Threads, 3.10 GHz, 3 MB, Intel® HD Graphics 2000) Intel® Pentium® processor G850 (2 Cores / 2 Threads, 2.90 GHz, 3 MB, Intel® HD Graphics) Intel® Pentium® processor G840 (2 Cores / 2 Threads, 2.80 GHz, 3 MB, Intel® HD Graphics) Intel® Pentium® processor G620 (2 Cores / 2 Threads, 2.60 GHz, 3 MB, Intel® HD Graphics) Intel® Celeron® processor G530 (2 Cores / 2 Threads, 2.40 GHz, 2 MB, Intel® HD Graphics)
<b>Operating systems</b>	
<b>Operating system</b>	Genuine Windows® 7 Home Basic (EM) 32-bit Genuine Windows® 7 Home Premium 64-bit Genuine Windows® 7 Professional 32-bit Genuine Windows® 7 Professional 64-bit
<b>Operating system compatible</b>	openSUSE Linux Genuine Windows Vista® Genuine Windows® XP
<b>Operating system notes</b>	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>	2 GB (1 module(s) 2 GB) DDR3, unbuffered, non-ECC, 1333 MHz, PC3-10600, DIMM 4 GB (1 module(s) 4 GB) DDR3, unbuffered, non-ECC, 1333 MHz, PC3-10600, DIMM
<b>Graphics add on cards (optional)</b>	Entry 3D: AMD FirePro™ V4900, 1 GB, 400 stream processors, PCIe x16, Dual Link DVI-I, 2x DisplayPort Midrange 3D: ATI FirePro™ V5800, 1 GB, 800 stream processors, PCIe x16, Dual Link DVI-I, 2x DisplayPort Midrange 3D: NVIDIA® Quadro® 2000D, 1 GB, 192 cores, PCIe x16, 2x Dual Link DVI-I Midrange 3D: NVIDIA® Quadro® 2000, 1 GB, 192 cores, PCIe x16, Dual Link DVI-I, 2x DisplayPort Midrange 3D: AMD FirePro™ V5900, 2 GB, 800 stream processors, PCIe x16, Dual Link DVI-I, 2x DisplayPort Entry 3D: ATI FirePro™ V4800, 1 GB, 400 stream processors, PCIe x16, Dual Link DVI-I, 2x DisplayPort Entry 3D: NVIDIA® Quadro® 600, 1 GB, 96 cores, PCIe x16, Dual Link DVI-I, DisplayPort Entry 3D: NVIDIA® Quadro® 400, 512 MB, 48 cores, PCIe x16, 1x DVI-I, DisplayPort Entry 3D: ATI FirePro™ V3800, 512 MB, 400 stream processors, PCIe x16, Dual Link DVI-I, DisplayPort Professional 2D: NVIDIA® Quadro® NVS 450, 512 MB, 2 x 8 cores, PCIe x16, 4 x DisplayPort Professional 2D: NVIDIA® Quadro® NVS 300, 512 MB, 16 cores, PCIe Gen2 x16, 2x DVI/VGA
<b>Hard disk drives (internal)</b>	SSD SATA, 256 GB, 2.5-inch SSD SATA, 128 GB, 2.5-inch HDD SATA III, 10000 rpm, 600 GB, 3.5-inch internal HDD SATA III, 10000 rpm, 300 GB, 2.5-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 III, 7200 rpm, 320 GB, 3.5-inch HDD SATA II, 7200 rpm, 2000 GB, 3.5-inch, business critical HDD SATA II, 7200 rpm, 160 GB, 2.5-inch HDD SATA, 320 GB, 2.5-inch 512 GB, 2.5-inch
<b>Hard disk notes</b>	One Gigabyte equals one billion bytes, when referring to hard disk drive capacity. 24/7 ready (business critical HDDS required) Up to 18 GB of HDD space is reserved for system recovery

<b>Drives (optional)</b>	Blu-ray Disc™ Triple Writer DVD-ROM DVD Super Multi MultiCard Reader 20in1, USB 2.0, 3.5-Inch MultiCard Reader 20in1 USB 3.0 front con., 3.5-Inch
<b>Interface add on cards/components (optional)</b>	WLAN III, 802.11g/Draft-n (Windows only) USB 3.0 PCIe x1 Parallel Interface Gigabit Ethernet PCIe x1, DS eSATA Interface Dual serial card PCIe x1, powered Dual serial card PCIe x1
<b>Base unit</b>	CELSIUS W410
<b>Mainboard</b>	
<b>Mainboard type</b>	D3062
<b>Formfactor</b>	proprietary
<b>Chipset</b>	Intel® Q67
<b>Processor socket</b>	LGA 1155
<b>Processor quantity maximum</b>	1
<b>Memory slots</b>	4 DIMM (DDR3)
<b>Supported capacity RAM (max.)</b>	32 GB
<b>Memory frequency</b>	1333 MHz
<b>Memory notes</b>	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. > 16 GB support with future memory modules
<b>LAN</b>	10/100/1000 MBit/s Intel® 82579 LM
<b>BIOS version</b>	AMI Aptio 4.6
<b>BIOS features</b>	BIOS Flash EPROM update by software Recovery BIOS
<b>Audio codec</b>	Conexant CX20642
<b>Audio features</b>	Internal speaker supports audio playback, High Definition audio, 5.1 surround sound
<b>I/O controller on board</b>	
<b>Serial ATA total</b>	6
<b>thereof SATA III</b>	2
<b>thereof eSATA</b>	2 (optional)
<b>Controller functions</b>	Serial ATA II (3 Gbit) Serial ATA III (6 Gbit) NCQ AHCI Raid 1/0
<b>Interfaces</b>	
<b>Audio: line-in</b>	1
<b>Audio: line-in / microphone</b>	1
<b>Audio: line-out</b>	1
<b>Front audio: microphone</b>	1
<b>Front audio: headphone</b>	1
<b>USB 2.0 total</b>	14
<b>USB 3.0 total</b>	optional
<b>USB front</b>	4

**Interfaces**

USB rear	8
USB internal	2
VGA	1 (via DVI to VGA adapter)
DisplayPort	1
DVI	1
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	7
2.5-inch internal bays	1
3.5-inch internal bays	2
3.5-inch external bays	2
5.25-inch external bays	2

**Slots**

PCI-Express 2.0 x16	1 x (312 mm) Full height
PCI-Express 2.0 x4 (mech. x16)	1 x (312 mm) Full height
PCI-Express x1	1 x (312 mm) Full height
PCI (32-bit / 33 MHz)	1 x (170 mm) Full height

**Graphics on board**

Graphics brand name	Intel® HD Graphics or HD Graphics 2000 (depending on CPU)
Shared video memory	up to 1759 MB
TFT resolution (VGA)	1024 x 768 pixel 1280 x 1024 pixel 1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1600 x 1200 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel
TFT resolution (DVI)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel
TFT resolution (DisplayPort)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel 2560 x 1440 pixel 2560 x 1600 pixel
Graphics features	Dual display support DirectX 10.1 HDCP support For multi monitoring mode, graphics card and integrated graphics run in parallel (Microsoft® Windows 7® only) Open GL® 3.0

**Graphics on board**

<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
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**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>	300 W
<b>Power factor correction/active power</b>	active

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

<b>Noise emission</b>	According to ISO9296
<b>Related Processors for noise</b>	Intel Core i5-2500
<b>Noise Operation mode 1: ODD load (Blue angel requirement)</b>	25 db(A)
<b>Noise Operation mode 2: HDD load (Blue angel requirement)</b>	19 db(A)
<b>Noise Operation mode 3: CPU 90% load (Blue angel requirement)</b>	21 db(A)
<b>Noise Operation mode 4: High load</b>	21 db(A)
<b>Noise Operation mode 5: Office applications</b>	19 db(A)
<b>Idle mode (Blue Angel requirement)</b>	19 db(A)
<b>Noise notes / description</b>	A weighted sound power level Lwad (in B) / workplace related A-weighted sound pressure level LpAm (in dB(A)), Bystander position

**Dimensions / Weight / Environmental**

<b>Dimensions (W x D x H)</b>	175 x 419 x 395 mm
<b>Operating position</b>	Vertical
<b>Weight</b>	approx. 11 kg
<b>Weight notes</b>	Actual weight may vary depending on configuration
<b>Operating ambient temperature</b>	10 - 35°C
<b>Operating relative humidity</b>	5 - 85 % (relative humidity)

**Compliance**

<b>Product</b>	CELSIUS W410
<b>Model</b>	M15W-D3062
<b>Germany</b>	GS
<b>Europe</b>	CE Nordic Swan
<b>USA/Canada</b>	FCC Class B cCSAus
<b>Global</b>	RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronic equipment) Microsoft Operating Systems (HCT / HCL entry / WHQL) ENERGY STAR® 5.0 EPEAT® Silver (dedicated regions)
<b>Compliance link</b>	<a href="https://sp.ts.fujitsu.com/sites/certificates/">https://sp.ts.fujitsu.com/sites/certificates/</a>

<b>Security</b>	
<b>System protection</b>	Kensington Lock support Eye for padlock Optional: Integrated cabinet lock Optional: Intrusion switch
<b>Audit proof protection</b>	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
<b>Access protection</b>	User and supervisor BIOS password Hard disk password Optional: Access protection via external SmartCard reader Optional: Access protection via internal SmartCard reader
<b>Additional Software</b>	
<b>Additional software (preinstalled)</b>	Nero Essentials S (burning software) Fujitsu Recovery (Hard Disk Based Recovery) Norton Internet Security (incl. Firewall) 60 days version Microsoft® Office Starter: reduced-functionality Word and Excel® only, with advertising. No PowerPoint® or Outlook®. Buy Office 2010 to use the full-featured software.
<b>Additional software (optional)</b>	Recovery DVD for Windows® Drivers & Utilities DVD (DUDVD) CyberLink PowerDVD BD (playback software for Blu-ray Disc™, only with Blu-ray Disc™ drive / Blu-ray playback is not supported under Windows XP if the system runs on Intel onboard graphics)
<b>Miscellaneous</b>	
	Keyboard on (Special Fujitsu keyboard required) Thermal management Extended lifetime
<b>Manageability</b>	
<b>Manageability technology</b>	DeskUpdate Driver management PXE 2.1 Boot code Wake up from S5 (off mode) Intrusion switch (optional) iAMT 7.0
<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 Advanced alerts (ASF implementation) Security Remote Control DeskView Helpdesk Integration WoL (Wake on LAN)
<b>Manageability link</b>	<a href="http://ts.fujitsu.com/manageability">http://ts.fujitsu.com/manageability</a> <a href="http://www.altiris.com/fujitsu">http://www.altiris.com/fujitsu</a>
<b>Input device / components</b>	
<b>Input devices (optional)</b>	Optical USB tilt wheel mouse Optical USB/PS2 tilt wheel mouse KBPC PX ECO Mouse M440 ECO
<b>Warranty</b>	
<b>Standard Warranty</b>	3 years (depending on country)
<b>Service level</b>	On-site Service (depending on country)

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**Warranty**

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

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**Recommended Service** 5x9, Response Time: Next Business Day

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**Service Weblink** <http://ts.fujitsu.com/Supportservice>

## More information

### Fujitsu platform solutions

In addition to Fujitsu CELSIUS W410, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

#### Dynamic Infrastructures

With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

#### 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 W410, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.  
<http://ts.fujitsu.com/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 resolve issues of environmental energy efficiency through IT. Please find further information at <http://www.fujitsu.com/global/about/environment/>



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2011-12-27 CE-EN

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