

# DATASHEET

## FUJITSU CELSIUS W280 WORKSTATIONS

WORKSTATION POWER, PC FORMAT

The CELSIUS W280 is the manageable workstation for when a traditional PC just isn't enough. Powered by the latest Intel® processors and available with choice of professional graphics cards, it provides workstation performance in a compact PC design and is ideal for business environments such as entry-level 2D CAD.

### GOOD PERFORMANCE

Higher productivity

- State-of-the art processors, graphic cards and hard disk drives

### ERGONOMICS

Quiet system for a pleasant working environment

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

### FLEXIBILITY

Suitable for all application areas

- Excellent flexibility for all tasks

### LEADING WORKSTATION APPLICATION CERTIFICATION

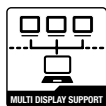
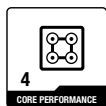
Maximum compatibility and performance with customer-preferred applications

- 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 processor i7-860 (4C/8T, 2.80 GHz, 8 MB)
	Intel® Core™ i5 processor i5-750 (4C/4T, 2.66 GHz, 8 MB)
	Intel® Core™ i5 processor i5-670 (2C/4T, 3.46 GHz, 4 MB, Intel® HD Graphics)
	Intel® Core™ i5 processor i5-660 (2C/4T, 3.33 GHz, 4 MB, Intel® HD Graphics)
	Intel® Core™ i5 processor i5-650 (2C/4T, 3.20 GHz, 4 MB, Intel® HD Graphics)
	Intel® Core™ i3 processor i3-530 (2C/4T, 2.93 GHz, 4 MB, Intel® HD Graphics)
	Intel® Pentium® processor G6950 (2C/2T, 2.80 GHz, 3 MB, Intel® HD Graphics)
<b>MEMORY MODULES</b>	4 GB (1 module(s) 4 GB) DDR3, unbuffered, non-ECC, 1333 MHz, PC3-10600, DIMM
	2 GB (1 module(s) 2 GB) DDR3, unbuffered, non-ECC, 1333 MHz, PC3-10600, DIMM
<b>GRAPHICS ADD ON CARDS (OPTIONAL)</b>	Midrange 3D: NVIDIA® Quadro FX 1800, 768 MB, PCIe x16, DL-DVI-I, 2x DP
	Midrange 3D: NVIDIA® Quadro FX 580, 512 MB, PCIe x16, DL-DVI-I, 2x DP
	Entry 3D: NVIDIA® Quadro FX 380, 256 MB, PCIe x16, 2x DL-DVI-I
	Entry 3D: ATI FirePro™ V3700, 256 MB, PCIe x16, 2x DL-DVI-I
	Multi monitor 2D: NVIDIA® Quadro NVS 450, 512 MB, PCIe x1, 4 x DP
	Professional 2D: NVIDIA® Quadro NVS 290, 256 MB, PCIe x16, 2x SL DVI-I
<b>HARD DISK DRIVES (INTERNAL)</b>	SSD SATA, 256 GB, 2.5-inch
	SSD SATA, 128 GB, 2.5-inch
	SATA II, 7200 rpm, 1000 GB, 3.5-inch, S.M.A.R.T. business critical
	SATA II, 7200 rpm, 1000 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 750 GB, 3.5-inch, S.M.A.R.T. business critical
	SATA II, 7200 rpm, 500 GB, 3.5-inch, S.M.A.R.T. business critical
	SATA II, 7200 rpm, 500 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 320 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 250 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 160 GB, 2.5-inch, S.M.A.R.T.
<b>Hard disk notes</b>	One Gigabyte equals one billion bytes, when referring to hard disk drive capacity. 2.5-inch drives will be mounted in the 3.5-inch bays
<b>DRIVES (OPTIONAL)</b>	Blu-ray Disc Triple Writer
	DVD-ROM
	DVD Super Multi
	MultiCard Reader 20in1, 3,5-Inch
<b>INTERFACE ADD ON CARDS/COMPONENTS (OPTIONAL)</b>	WLAN III, 802.11g/Draft-n (Windows only)
	Parallel Interface
	Modem adapter kit (EU)
	Modem 56k incl. RJ11 modem cable
	Gigabit Ethernet PCIe x1
	FireWire PCI-Card IEEE1394
	eSATA Interface
	Dual serial card, PCI, EX-43092
	<b>Base unit</b>
<b>MAINBOARD</b>	
<b>Mainboard type</b>	D2912
<b>Formfactor</b>	µBTX
<b>Chipset</b>	Intel® Q57
<b>Processor socket</b>	LGA 1156
<b>Processor quantity maximum</b>	1

## MAINBOARD

Memory slots	4 DIMM (DDR3)
Supported capacity RAM (max.)	16 GB
Memory frequency	1333 MHz
Memory notes	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).
LAN	Built-in 10/100/1000 MBit/s Intel® 82578 LM
WLAN	Optional (for Windows only)
Audio codec	Realtek ALC663
Audio features	5.1 surround sound, High Definition audio, Internal speaker supports audio playback

## I/O CONTROLLER

Serial ATA total	4
thereof eSATA	1, optional
SATA RAID support	0, 1, 10, 5

## INTERFACES

Audio: in (rear)	2
Audio: out (rear)	1
Front Audio: in	1
Front Audio: out	1
Internal speakers	1
USB 2.0 total	12
USB front	2
USB rear	8
USB internal	2
Display Port	1 (depends on processor)
VGA	1 (depends on processor)
DVI	1 or 2, optional (depends on processor)
Serial (RS-232)	1, (9 pin)
Mouse / Keyboard (PS/2)	2
Ethernet (RJ-45)	1
Parallel	1, optional
eSATA	1, optional

## DRIVE BAYS

Drive bays total	6
3.5-inch internal bays	2
3.5-inch external bays	2
5.25-inch external bays	2

## SLOTS

PCI-Express Gen2 x16	1 x (312 mm) FlexySlot
PCI-Express Gen2 x4 (mech. x16)	1 x (190 mm) full height
PCI (32-bit / 33 MHz)	2 x (170/315 mm) full height

## GRAPHICS ON BOARD

Shared video memory	up to 256 MB
Refresh rate 1024 x 768 (recommended / max.)	85 Hz /
Refresh rate 1280 x 1024 (recommended / max.)	85 Hz /
Refresh rate 1600 x 1200 (recommended / max.)	85 Hz /
TFT resolution (VGA)	1360 x 768 pixel 1440 x 900 pixel 1680 x 1050 pixel 1920 x 1200 pixel

## GRAPHICS ON BOARD

<b>TFT resolution (DVI)</b>	1360 x 768 pixel 1440 x 900 pixel 1680 x 1050 pixel 1920 x 1200 pixel
<b>Graphics notes</b>	Graphics controller integrated in dual-core processors. For quad-core processors graphics card is mandatory. Tested resolutions, depending on display type additional resolutions and frequencies possible Shared memory depending on main memory size For TFT we recommend using 60Hz

## ELECTRICAL VALUES

<b>Rated voltage range</b>	100 - 240 V
<b>Rated frequency range</b>	50 - 60 Hz
<b>Max. output of power supply</b>	300 W

## NOISE FOR STANDARD CONFIGURATION (HDD, ODD, FDD)

<b>Noise emission</b>	According to ISO9296 (LpAm at bystander position)
<b>Idle mode</b>	tbd
<b>Office mode</b>	tbd dB(A)
<b>Noise notes / description</b>	Actual noise emissions may vary depending on configuration

## DIMENSIONS / WEIGHT / ENVIRONMENTAL

<b>Dimensions (W x D x H)</b>	203 x 390 x 392 mm
<b>Operating position</b>	Vertical
<b>Weight</b>	12 kg
<b>Weight notes</b>	Actual weight may vary depending on configuration
<b>Operating ambient temperature</b>	15 - 35°C
<b>Operating relative humidity</b>	10 - 75 %

## COMPLIANCE

<b>Product</b>	CELSIUS W280
<b>Model</b>	MTB-D2912
<b>Germany</b>	GS optional Blauer Engel / Blue Angel optional
<b>Europe</b>	CE
<b>USA/Canada</b>	FCC Class B cCSAus
<b>Global</b>	RoHS (Restriction of hazardous substances) Medical certification IEC60601-1-2 in combination with medical kit ENERGY STAR® 5.0
<b>Compliance notes</b>	Energy Star compliance may vary depending on actual configuration
<b>Compliance link</b>	<a href="https://sp.ts.fujitsu.com/sites/certificates/default.aspx">https://sp.ts.fujitsu.com/sites/certificates/default.aspx</a>

## SECURITY

<b>Physical security</b>	Kensington Lock support Eye for padlock Seal option Intrusion switch Optional: Integrated cabinet lock
<b>System security</b>	Write protect option for the Flash EPROM Embedded security (TPM 1.2) Disable / Hide TPM option
<b>User security</b>	Hard disk password User and supervisor BIOS password Optional: Access protection via SmartCard reader Optional: SmartCase Logon+

## OPERATING SYSTEM

<b>Operating system optional preinstalled</b>	Microsoft® Windows® 7 Professional 64-bit Microsoft® Windows® 7 Professional 32-bit Microsoft® Windows® 7 Home Premium 64-bit
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**OPERATING SYSTEM**

**Operating system compatible** Microsoft® Windows Vista® Business 64-bit  
Microsoft® Windows Vista® Business 32-bit  
Microsoft® Windows® XP Professional x64 Edition  
Microsoft® Windows® XP Professional  
Linux

**Operating system notes** RedHat / Novell certification pending  
For some configurations third party drivers are currently not available or configuration restrictions may apply.

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**ADDITIONAL SOFTWARE**

**Additional software (optional)** Drivers & Utilities DVD (DUDVD) Windows® 7 & Vista & XP  
Recovery DVD  
TwinLoad  
Windows® XP downgrade pack

**Additional software (included as a CD/DVD)** Norton Internet Security (incl. Firewall)

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**MANAGEABILITY**

**Manageability features** Intel® vPro™ technology  
iAMT Intel® Active Manageability Technology v6.0 (not activated, not set up)

**Manageability type** DeskView 10

**Manageability link** <http://ts.fujitsu.com/manageability>

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**INPUT DEVICE / COMPONENTS**

**Input devices (optional)** Optical USB tilt wheel mouse  
Optical USB/PS2 tilt wheel mouse  
Space Explorer USB  
Space Navigator USB  
Space Pilot USB  
Keyboard

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**Standard Warranty**

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

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#### FUJITSU PLATFORM SOLUTIONS

In addition to Fujitsu CELSIUS W280, 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 W280, 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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