

Fujitsu recommends Windows 10 Pro.

# Data Sheet

## FUJITSU Workstation CELSIUS H780 Workstations

Mobility. Security. Virtual Reality.

Meet the FUJITSU CELSIUS H780, the world's first 39.6 cm (15.6-inch) mobile workstation combining ultimate security with future technologies. While creatives and innovators are working on increasingly huge datasets, this machine will not weigh them down when showcasing designs in virtual reality at events or at the customer site.

### Need For Speed

When true workstation performance meets the elegant style of a laptop

- Choose between Intel® Core™ processors or powerful Intel® Xeon® processor E-2100M family supporting ECC memory
- Windows 10 Pro support
- UHD/4k and Full HD LED anti-glare displays (incl. touch option)
- Up to 64 GB DDR4 2400 MHz memory (ECC optional)
- Dual M.2 PCIe-SSD NVMe technology supports quick loading of core applications
- Made in Germany



### Full connectivity and worry-free docking experience

No compromise in terms of connectivity, regardless of whether you are away, in a meeting or at your desk

- Choice of port replicators with mechanical or Thunderbolt™ 3 connector
- Mechanical port replicator: Offering charging capabilities for the mobile workstation.
- Thunderbolt™ 3 port replicator: 2x USB Type-C™ connector offering speed up to 40Gbps, and charging capabilities of up to 15 W for e.g. mobile phone or power bank. The mobile workstation requires a power supply with at least 230 W.
- Full monitor connectivity support: 1x VGA and 1x HDMI.

### Mobility Meets Security

Data security and peace of mind

- Optional PalmSecure™, a leading-edge highly secure authentication system using biometric technology that authenticates users through vein pattern recognition
- Integrated SmartCard reader
- TPM 2.0 and Advanced Theft Protection

### We are (VR) ready

Architects, engineers and designers can now showcase their work in a real-time, fully immersive VR environment

- Powered by the NVIDIA® Quadro® P3200 VR-ready graphics card
- Ideal for mobile VR showcases at the customer site or at an event
- Easy connectivity of the head-mount display to the HDMI port



# Components

<b>Base unit</b>	CELSIUS H780
<b>Operating systems</b>	
<b>Operating system pre-installed</b>	Windows 10 Pro. Fujitsu recommends Windows 10 Pro. Windows 10 Pro for Workstations
<b>Operating system notes</b>	Certified for SUSE Enterprise Desktop
<b>Processor</b>	
	Intel® Xeon® processor E-2186M (6 Cores / 12 Threads, 2.90 GHz, up to 4.6 GHz) *
	Intel® Xeon® processor E-2176M (6 Cores / 12 Threads, 2.70 GHz, up to 4.4 GHz) *
	Intel® Core™ i7-8850H processor (6 Cores / 12 Threads, 2.60 GHz, up to 4.3 GHz) *
	Intel® Core™ i7-8750H processor (6 Cores / 12 Threads, 2.20 GHz, up to 4.1 GHz) *, **
	Please note that only certain combinations of processors, graphics and displays can be ordered *with Intel® Turbo Boost Technology (clock speed and performance will vary depending on workload and other variables) **not for corporate projects (only for retail, SMB, education and government)
<b>Graphics</b>	
	Midrange 3D: NVIDIA® Quadro® P2000, 4 GB (GDDR5), 768 CUDA® Processing Cores
	Midrange 3D: NVIDIA® Quadro® P3200, 6 GB (GDDR5), 1792 CUDA® Processing Cores
	Entry 3D: NVIDIA® Quadro® P600, 4 GB (GDDR5), 384 CUDA® Processing Cores
	Entry 3D: NVIDIA® Quadro® P1000, 4 GB (GDDR5), 512 CUDA® Processing Cores
<b>Memory modules</b>	
	8 GB (1 module(s) 8 GB) DDR4, 2,400 MT/s, PC4-2400, SO DIMM
	16 GB (2 module(s) 8 GB) DDR4, 2,400 MT/s, PC4-2400, SO DIMM
	16 GB (2 module(s) 8 GB) DDR4, ECC, 2,400 MT/s, PC4-2400, SO DIMM
	32 GB (2 module(s) 16 GB) DDR4, 2,400 MT/s, PC4-2400, SO DIMM
	32 GB (2 module(s) 16 GB) DDR4, ECC, 2,400 MT/s, PC4-2400, SO DIMM
<b>Hard disk drives (internal)</b>	
	HDD SATA III, 5,400 rpm, 500 GB
	HDD SATA III, 5,400 rpm, 1000 GB
	PCIe-SSD, NVMe, 256 GB, M.2 module
	PCIe-SSD, NVMe, 512 GB, M.2 module
	PCIe-SSD, NVMe, 256 GB Highend, M.2 module
	PCIe-SSD, NVMe, 512 GB Highend, M.2 module, SED
	PCIe-SSD, NVMe, 512 GB Highend, M.2 module
	PCIe-SSD, NVMe, 1024 GB Highend, M.2 module
<b>Hard disk notes</b>	One Gigabyte equals one billion bytes, when referring to hard disk drive capacity. Accessible capacity may vary, also depending on used software.
<b>Interface add on cards/components (optional)</b>	
<b>3G/4G (optional)</b>	Sierra Wireless EM7455 (Cat. 6)
<b>Display</b>	
	39.6 cm (15.6-inch),LED backlit,(UHD/4K),Anti-glare IPS display,3,840 x 2,160 pixel,Viewing angle v/h: 160°min,Color Gamut: 72%,Contrast Ratio: 700 typ.,Brightness: 300cd/m <sup>2</sup>
	39.6 cm (15.6-inch),LED backlit,(Full HD Premium Touch Panel),Anti-glare IPS touchscreen,1,920 x 1,080 pixel,Viewing angle v/h: 160°min,Color Gamut: 72%,Contrast Ratio: 700 typ.,Brightness: 300cd/m <sup>2</sup>
	39.6 cm (15.6-inch),LED backlit,(Full HD Premium),Anti-glare IPS display,1,920 x 1,080 pixel,Viewing angle v/h: 160°min,Color Gamut: 72%,Contrast Ratio: 700 typ.,Brightness: 300cd/m <sup>2</sup>
	39.6 cm (15.6-inch),LED backlit,(Full HD),Anti-glare IPS display,1,920 x 1,080 pixel,Viewing angle v/h: 160°min,Color Gamut: 45%,Contrast Ratio: 700 typ.,Brightness: 250cd/m <sup>2</sup>
<b>Multimedia</b>	
<b>Camera</b>	Built-in webcam (Full HD) with Status LED

# Base unit

Base unit	CELSIUS H780	
<b>Mainboard</b>		
Chipset	Intel® QM370 or CM246 (depending on CPU)	
Chipset notes	Intel® vPro™ technology dependent on processor type	
Supported capacity RAM (min.)	8 GB	
Supported capacity RAM (max.)	64 GB	
Memory slots	4 SO DIMM (DDR4, 2400 MHz)	
LAN	10/100/1,000 MBit/s Intel® I219LM	
Integrated WLAN	Intel Dual Band Wireless-AC9560	
BIOS features	InsydeH20 Bios	
Audio type	On board	
Audio codec	Realtek ALC255 with MaxxAudio	
Audio features	Stereo speakers, 2 digital microphones	
MIL-STD tested	Yes, selected MIL-STD-810G tests passed. MIL-STD-810G test results are not a guarantee of future performance under identified test conditions. Accidental damage is not covered under standard international limited warranty.	
<b>Display</b>		
Display notes	ISO 9241-307 - Pixel class II - anti-glare level	
<b>Graphics</b>		
Base unit	CELSIUS H780	
Max. resolution external display	up to 4,096 x 2,160 @ 60Hz	
Max. resolution display port	3,840 x 2,160 pixel via DisplayPort and Type-C and 1,920 x 1,200 pixel via VGA	
<b>Interfaces</b>		
DC-in	1x	
Audio: line-in / line-out	1	
Internal microphones	2x digital array microphones	
Internal speakers	2	
USB 3.1 Gen1 (USB 3.0) total	1x (type A) power off charge	
USB 3.1 Gen2 total	2x (type A)	
USB Type-C	2 (USB 3.1 Gen2 (10 Gbps), Thunderbolt 3 (20/40Gbps), Power Delivery (15W), DP 1.4)	
VGA	1x	
HDMI	1	
Ethernet (RJ-45)	1x	
SmartCard slot	1x	
SIM card slot	1	
Multicardreader	1x (SD/SDXC, UHS-II support) SD/microSD = 2GB, SDHC/micro SDHC = 32GB, SDXC = 512GB	
Interface Module notes	1x Kensington Lock support, 1x Docking connector	
<b>Port Replicator interfaces (optional)</b>		
Notes	Thunderbolt Port Replicator	Mechanical Port Replicator
DC-in	1x	1x
Power on switch	---	1
Audio: line-in / microphone	1x	1x
Audio: line-out / headphone	1x	1x
USB 2.0 total	2x	---
USB 3.1 Gen1 (USB 3.0) total	2x	6x (4x USB Type-A, 2x USB Type-C)
DisplayPort	2x (1x through from TB3 TypeC, 1x via internal DP-Splitter), resolution up to 3840 x 2160	2x, resolution up to 3840 x 2160, 16M colors, 60Hz

**Port Replicator interfaces (optional)**

VGA	1x (via TBT3 internal DP-splitter) resolution up to 1920 x 1200, 16M colors, 60Hz	1x resolution up to 1920 x 1200, 16M colors, 60Hz
DVI	1x (via TBT3 internal DP-splitter) resolution up to 1920 x 1200, 16M colors, 60Hz	1x resolution up to 1920 x 1200, 16M colors, 60Hz
Ethernet (RJ-45)	1x	1x
Interface Notes	at least 230W power supply required for mobile workstation	DisplayPort next to USB and HDMI at Mobile WORKSTATION sharing the same channel (only one connection at a time possible); Dock DP2, CRT, DVI ports will share the same DP port bandwidth with VM3332

**Keyboard**

Keyboard w/o touchstick (spill-resistant)#Keyboard w/ touchstick#Backlight keyboard w/o touchstick (spill-resistant)  
 Number of keyboard keys: 106, Keyboard pitch: 18.4 mm, Keyboard stroke: 1.7 mm  
 Touchpad with three mouse buttons

**Input devices (optional)**

TouchStick

**Antennas**

Bluetooth 5.0

Integrated WLAN Intel Dual Band Wireless-AC9560

**Fast IDE/Ultra DMA-100**

SATA RAID support 0,1

**Power supply**

AC adapter 19.5 V / 230 W (11.8 A)

Rated voltage range 100 V - 240 V (AC Input)

Rated frequency range 50 Hz - 60 Hz

1st battery 1st Li-Ion battery 8-cell, 96 Wh, 6700 mAh

Runtime 1st battery up to 12 hours (pending on configuration)

Battery charging time up to 80% within 1.3 hrs; up to 100% within 2.5hrs.

**Dimensions / Weight / Environmental**

Dimensions (W x D x H) 380.0 x 258.0 x 31.9 mm

14.96 x 10.16 x 1.26 inch

Weight from 2.7 kg

Weight (lbs) from 5.95 lbs

Weight notes Actual weight may vary depending on configuration

Operating ambient temperature 5 - 35 °C (41 - 95 °F)

Operating relative humidity 20 - 80 % (relative humidity, non-condensing)

**Compliance**

Product CELSIUS H780

Europe CE Marking

USA/Canada cULus  
 FCC Class B part 15C/E + 22 + 24 (depending on wireless configuration)

Global RoHS (EU & China)  
 ENERGY STAR® 7.0

Compliance link <https://sp.ts.fujitsu.com/sites/certificates>

**Additional Software**

<b>Additional software (preinstalled)</b>	Adobe® Reader® (pdf reader) McAfee® LiveSafe™ (provides award-winning antivirus protection for your PC and much more. 30 days trial pre-installed) Fujitsu Display Manager EasyGuide online user documentation Power Saving Utility ShockSensor Utility SmartAccess Fujitsu Plugfree Network (network management utility) Intel® SBA (manageability suite for local administration) DTS® Sound Enhance Software Fujitsu Application Button Utility Fujitsu DeskUpdate (driver and utility tool) Microsoft Office (1 month trial for new Microsoft® Office 365 customers. Buy Microsoft Office.)
<b>Additional software (optional)</b>	Drivers & Utilities DVD (DUDVD) LTE / UMTS Connection Manager (if configured with 4G/LTE or 3G/UMTS) Workplace Protect (secure authentication solution)

**Manageability**

<b>Manageability technology</b>	DeskUpdate Driver management PXE 2.1 Boot code Wake up from S5 (off mode) WoL (Wake on LAN) Intel® vPro™ technology/iAMT (depending on processor)
<b>Manageability software</b>	DeskView Client DeskView Instant BIOS Management DeskView Integration for Symantec Management Platform
<b>DeskView components</b>	Inventory Management BIOS Management Driver Management Security Management Alarm Management
<b>Supported standards</b>	WMI PXE BootP (made4you)
<b>Manageability link</b>	<a href="http://www.fujitsu.com/fts/solutions/high-tech/dynamic-infrastructure/solutions/workplace/manageability/feature-finder.html">http://www.fujitsu.com/fts/solutions/high-tech/dynamic-infrastructure/solutions/workplace/manageability/feature-finder.html</a>

**Security**

<b>Physical Security</b>	Kensington Lock support
<b>System and BIOS Security</b>	Advanced Theft Protection Computrace® enabled BIOS EraseDisk (optional) Write protect option for the Flash EPROM Trusted Platform Module (TPM 2.0) Credential Guard Ready and Device Guard Capable (Windows 10, v. 1809; requires 8 GB or more system RAM and SSD PCIe NVME)
<b>User Security</b>	Embedded fingerprint sensor (optional) Embedded PalmSecure™ sensor (optional) Separate SmartCard slot Hard disk password User and supervisor BIOS password Preboot Authentication with SystemLock 3

**Warranty**

<b>Warranty period</b>	3 years (depending on country)
<b>Warranty type</b>	Bring-in Service / Collect & Return Service (depending on country)
<b>Warranty Terms &amp; Conditions</b>	<a href="http://www.fujitsu.com/warranty">http://www.fujitsu.com/warranty</a>

**Product Support Services - the perfect extension**

**Warranty**

<b>Recommended Service</b>	9x5, Onsite 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/emeia/products/product-support-services/">http://www.fujitsu.com/emeia/products/product-support-services/</a>

## Recommended Accessories

**Thunderbolt™ 3 Port-Replicator**

Take advantage of the USB Type-C™ connector offering more speed (40 Gbps) and more protocols.

Order Code:  
S26391-F2249-L100

**CELSIUS® H780 Port Replicator Kit**

Flexibility, expandability, desktop replacement, investment protection – to name just a few benefits of Fujitsu's docking options.

Order Code:  
S26391-F2249-L300

**Privacy Filters**

To use privacy filters is a must in times of increased safety requirements. Fujitsu's Privacy Filters block unauthorized views on your screen while you are sitting in an external meeting or working in a train. The front view remains clear for the user's eyes only. The filters are easy to attach and what's more: They also protect your screen from small scratches and damages.

Order Code:  
S26391-F6098-L215

**Prestige Trolley 17**

The FUJITSU Prestige Trolley 17 protects and transports notebooks with up to 17 inch screens, along with clothes and toiletries. It is the perfect companion in a city environment or for overnight stays with four spacious compartments. Smooth running wheels and a telescopic handle ensure convenience, while the central section protects your notebook with shock-absorbing foam.

Order Code:  
S26391-F1194-L130

**Display P27-8 TS UHD**

The FUJITSU Display P27-8 TS UHD has a 3840 x 2160 Ultra HD resolution ships with a thin bezel housing ideal for multi-monitor use scenarios. The monitor has a 178°/178° wide viewing angle that delivers consistent picture quality, a 100% sRGB color space, ECO function, DisplayView™ IT Suite manageability software and a range of connectivity options ideal for medium- and large-sized businesses.

Order Code:  
S26361-K1610-V160

**Display B34-9 UE**

The FUJITSU Display B34-9 UE is an ultrawide curved display with 3440 x 1440 resolution with a thin bezel housing. The monitor has a 1900R curvature and a wide viewing angle that delivers consistent picture quality, DisplayView™ software and a range of connectivity options ideal for medium- and large-sized businesses.

Order Code:  
S26361-K1642-V140

**Keyboard KB950 Phone**

The KB950 Phone is a modern and slim line USB keyboard with integrated Skype for business features. This extremely reliable, high-speed input device is the perfect way to manage incoming and outgoing calls, even when the system is locked. Three additional keys make it easy to accept and end calls and mute your microphone during a call. Easy number dialing is assured with the numpad. The integrated 61 x 12 mm display shows the time and date, the user status and shows incoming call data in the form of the calling number and caller ID.

S26381-F950-L4\*\* (\*\*: Country specific variation)

## More information

### Fujitsu products, solutions & services

In addition to the FUJITSU Workstation CELSIUS H780, 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/products/computing/](http://www.fujitsu.com/global/products/computing/)

#### Software

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

### More information

Learn more about the FUJITSU Workstation CELSIUS H780, 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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2019-08-01 EM-EN

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