

Fujitsu recommends Windows.

# Data Sheet

## FUJITSU ESPRIMO P520 E85+ Desktop PC

Your Flexible and Economic PC

FUJITSU ESPRIMO P520 PCs deliver high-quality computing for your demanding office applications. Designed for the specific needs of project-based customers they cover attractive price points and focus on providing the continuity needed for daily operations. They can be either individually configured or customized to meet your specific hardware needs.

### High performance and best price/performance ratio

Powerful and cost-effective project PC

- 4th generation Intel® Core™ processor family

### System management

The perfect answer to offload your IT administrators

- DeskView Admin enhances the management of the devices in your IT infrastructure during productive operation - even remotely and after hours

### Made in Germany

Outstanding quality and stable functions based on German production standards

- The development, production and function tests - all under one roof in Germany

### Lifecycle

Hardware continuity for long-lasting project requirements

- Managed lifecycle up to 12 months

### Meets ENERGY STAR® requirements

Low power consumption and low costs, without any loss in performance

- 85% energy efficient power supply



# Components

<b>Processor</b>	Intel® Core™ i7-4790 processor (4 Cores / 8 Threads, 3.60 GHz, up to 4.0 GHz, 8 MB, Intel® HD Graphics 4600) *
	Intel® Core™ i5-4690 processor (4 Cores / 4 Threads, 3.50 GHz, up to 3.9 GHz, 6 MB, Intel® HD Graphics 4600) *
	Intel® Core™ i5-4590 processor (4 Cores / 4 Threads, 3.30 GHz, up to 3.7 GHz, 6 MB, Intel® HD Graphics 4600) *
	Intel® Core™ i5-4440 processor (4 Cores / 4 Threads, 3.10 GHz, up to 3.3 GHz, 6 MB, Intel® HD Graphics 4600)
	Intel® Core™ i3-4160 processor (2 Cores / 4 Threads, 3.60 GHz, 3 MB, Intel® HD Graphics 4400)
	Intel® Core™ i3-4150 processor (2 Cores / 4 Threads, 3.50 GHz, 3 MB, Intel® HD Graphics 4400)
	Intel® Pentium® processor G3450 (2 Cores / 2 Threads, 3.40 GHz, 3 MB, Intel® HD Graphics)
	Intel® Pentium® processor G3440 (2 Cores / 2 Threads, 3.30 GHz, 3 MB, Intel® HD Graphics)
	Intel® Pentium® processor G3250 (2 Cores / 2 Threads, 3.20 GHz, 3 MB, Intel® HD Graphics)
	Intel® Pentium® processor G3240 (2 Cores / 2 Threads, 3.10 GHz, 3 MB, Intel® HD Graphics)
	Intel® Celeron® processor G1840 (2 Cores / 2 Threads, 2.80 GHz, 2 MB, Intel® HD Graphics)
*with Intel® Turbo Boost Technology (clock speed and performance will vary depending on workload and other variables)	
<b>Operating systems</b>	
<b>Operating system</b>	Windows 8.1 Pro
	Windows 8.1
	Windows 7 Professional 64-bit
	Windows 7 Professional 32-bit
<b>Operating system compatible</b>	openSUSE Linux
<b>Memory modules</b>	
	2 GB (1 module(s) 2 GB) DDR3, unbuffered, non-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, non-ECC, 1,600 MHz, PC3-12800, DIMM
<b>Hard disk notes</b>	
	Up to 20 GB of HDD space is reserved for system recovery
	SED (Self-Encrypting Drive)
	SSD (Solid State Disk)
	SSHD (Solid State Hard Disk, Hybrid drive)
<b>Hard disk drives (internal)</b>	
	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, 256 GB, 2.5-inch
	SSD SATA III Premium, 128 GB, 2.5-inch
	SSD SATA III, 256 GB, 2.5-inch, SED
	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, 7,200 rpm, 2,000 GB, 3.5-inch
	HDD SATA III, 7,200 rpm, 1,000 GB, 3.5-inch
	HDD SATA III, 7,200 rpm, 500 GB, 3.5-inch
	HDD SATA III, 7,200 rpm, 250 GB, 3.5-inch
	HDD SATA II, 5,400 rpm, 320 GB, 2.5-inch

<b>Graphics</b>	NVIDIA® NVS 300, 512 MB
	NVIDIA® NVS 300, 1 GB
	NVIDIA® GeForce® GT630 DisplayPort 2GB FH, 2 GB
	NVIDIA® GeForce® 605 DisplayPort 1GB FH, 1 GB
	LFH59/ 2x DVI-I adapter cable
	LFH59/ 2x DP adapter cable
	DVI to VGA Adapter
	DP to DVI-D (single link) Adapter Cable
	DP Extension Card
	ATI Radeon® HD7350 1GB FH, 1 GB
AMD® Radeon R9 255 FH, 2 GB	
<b>Drives (optional)</b>	BD Triple Writer SATA slim (tray)
	DVD-ROM
	DVD Super Multi
	MultiCard Reader 24in1 USB 2.0 3.5"
<b>Interface add on cards/components (optional)</b>	WLAN 802.11 a/g/n (2x2), (dedicated regions only, not for Indonesia)
	USB 3.0 front connector
	Parallel Interface
	Gigabit Ethernet PCIe x1, DS
	eSATA Interface
	Dual serial card PCIe x1

## Base unit

<b>Base unit</b>	ESPRIMO P520 E85+
<b>Mainboard</b>	
<b>Mainboard type</b>	D3220
<b>Formfactor</b>	µATX
<b>Chipset</b>	Intel® B85
<b>Processor socket</b>	LGA 1150
<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>	1,600 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
<b>LAN</b>	10/100/1,000 MBit/s Intel® I217LV
<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 type</b>	On board
<b>Audio codec</b>	Realtek ALC671
<b>Audio features</b>	Internal speaker supports audio playback (optional), High Definition Audio, 5.1 surround sound
<b>I/O controller on board</b>	
<b>Serial ATA total</b>	4
<b>thereof SATA III</b>	4
<b>thereof eSATA</b>	1 (optional)

**I/O controller on board**

Controller functions	Serial ATA II (3 Gbit) Serial ATA III (6 Gbit) NCQ AHCI
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**Interfaces**

Audio: line-in	1
Audio: line-in / microphone	1
Audio: line-out	1
Front audio: microphone	1
Front audio: headphone	1
USB 2.0 total	8
USB 3.0 total	4
USB front	2x 2.0
USB rear	4x 2.0/ 2x 3.0
USB internal	2x 2.0/ 2x 3.0
VGA	1
DisplayPort	1 (optional)
DVI	1 (DVI-D)
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 wheel mouse
Input devices (optional)	Optical USB/PS2 tilt wheel mouse KBPC PX ECO Mouse M440 ECO

**Drive bays**

Drive bays total	5
3.5-inch internal bays	2
3.5-inch external bays	1
5.25-inch external bays	2
Drive bay notes	3,5" bay can be used for 2,5" drives

**Slots**

PCI-Express 3.0 x16	1 x (210 mm / 8.27 inch) Full height
PCI-Express 2.0 x4 (mech. x16)	1 x (210 mm / 8.27 inch) Full height
PCI-Express x1	2 x (190 mm / 7.48 inch) Full height

**Graphics on board**

Graphics brand name	Intel® HD Graphics, HD Graphics 4400, HD Graphics 4600 (depending on processor)
Shared video memory	up to 1,782 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

**Graphics on board**

<b>TFT resolution (DVI)</b>	1,280 x 1,024 pixel 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
<b>TFT resolution (DisplayPort)</b>	1,280 x 1,024 pixel 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 3,840 x 2,160 pixel (requires Intel® Core™ i3, i5 or i7 processor)
<b>Graphics features</b>	Support for up to three independent displays DirectX® 11.1 HDCP support Open CL® 1.2 OpenGL® 4.0 For multi monitoring mode, graphics card and integrated graphics run in parallel (Microsoft® Windows® 7 or Windows 8)
<b>Graphics notes</b>	up to 1 GB dedicated video memory (main memory owned and locked for graphics use) 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**

<b>Power efficiency note</b>	power supply efficiency (at 230V; 20% / 50% / 100% load) : 83% / 86% / 85% 0-Watt mode with hard-off switch
<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>	280 W
<b>Power factor correction/active power</b>	active
<b>Monitor outlet</b>	No

**Power consumption**

<b>Power consumption note</b>	See white paper Energy Consumption 0-Watt mode with hard-off switch
<b>Link to Energy White Paper</b>	<a href="http://docs.ts.fujitsu.com/dl.aspx?id=ca528720-8063-41ee-bd80-9fe120eccb20">http://docs.ts.fujitsu.com/dl.aspx?id=ca528720-8063-41ee-bd80-9fe120eccb20</a>

**Heat dissipation**

<b>Heat dissipation notes</b>	See white paper Energy Consumption
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**Noise emission**

<b>Related Processors for noise</b>	Intel® Core™ i7 4770
<b>Standard noise emission</b>	2x2 GB, HDD, ODD, Windows According to ISO 7779:2010, ECMA-74
<b>Standard 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
<b>Standard noise operation mode: CPU 50% load</b>	3.5 B / 22 dB(A) Bystander ; 26 dB(A) Operator position
<b>Standard noise operation mode: HDD load</b>	3.6 B / 22 dB(A) Bystander ; 26 dB(A) Operator position

**Noise emission**

Standard noise operation mode: Idle mode	3.5 B / 22 dB(A) Bystander ; 25 dB(A) Operator position
Standard noise operation mode: ODD load	4.5 B / 31 dB(A) Bystander ; 36 dB(A) Operator position
Standard noise operation mode: Office applications 2.0	3.5 B / 22 dB(A) Bystander ; 25 dB(A) Operator position
Blue angel noise emission according certification	According to ISO 7779:2010, ECMA-74 for max. possible configuration
Blue angel noise notes / description	A-weighted sound power level Lwad (in B); 1B = 10dB
Blue angel noise operation mode: HDD load	3.7 B = 37 dB (A)
Blue angel noise operation mode: Idle mode	3.6 B = 36 dB (A)
Blue angel noise operation mode: ODD load	4.6 B = 46 dB (A)

**Dimensions / Weight / Environmental**

Dimensions (W x D x H)	175 x 425 x 353 mm 6.89 x 16.74 x 13.9 inch
Operating position	Vertical
Weight	10 kg
Weight (lbs)	22.05 lbs
Weight notes	Actual weight may vary depending on configuration
Operating ambient temperature	10 - 35 °C (50 - 95 °F)
Operating relative humidity	5 - 85 % (relative humidity)

**Compliance**

Product	ESPRIMO P520
Model	MI4W
Germany	TÜV GS Blauer Engel / Blue Angel
Europe	CE
USA/Canada	FCC Class B cCSAus
Global	RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronic equipment) Microsoft Operating Systems (HCT / HCL entry / WHQL) EPEAT® Gold (dedicated regions) ENERGY STAR® 6.0 (dedicated regions)
Compliance link	<a href="http://globalsp.ts.fujitsu.com/sites/certificates">http://globalsp.ts.fujitsu.com/sites/certificates</a>

**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

**Manageability**

Manageability technology	DeskUpdate Driver management PXE 2.1 Boot code Wake up from S5 (off mode) WoL (Wake on LAN)
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**Manageability**

<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>	DMI PXE WMI
<b>Manageability link</b>	<a href="http://www.fujitsu.com/fts/manageability">http://www.fujitsu.com/fts/manageability</a>

**Security**

<b>Physical Security</b>	Kensington Lock support Eye for padlock
<b>System and BIOS Security</b>	Boot sector virus protection Write protect option for the Flash EPROM Control of external interfaces Optional: Trusted platform module (TPM 1.2)
<b>User Security</b>	User and supervisor BIOS password Hard disk password Access protection via external SmartCard reader (optional) Access protection via internal SmartCard reader (optional)

**Miscellaneous**

Thermal management

**Packaging information**

<b>Packaging dimension (mm)</b>	500 x 290 x 540 mm
<b>Packaging dimension (inch)</b>	19.69 x 11.42 x 21.26 inch
<b>Max. quantity / pallet</b>	24
<b>Material - Weight (g) Carton</b>	1270 g
<b>Material - Weight (lbs) Carton</b>	2.8 lbs
<b>Material - Weight (g) EPS / PS</b>	160 g
<b>Material - Weight (lbs) EPS / PS</b>	0.35 lbs
<b>Material - Weight (g) PE</b>	60 g
<b>Material - Weight (lbs) PE</b>	0.13 lbs
<b>Packaging notes</b>	printed user documentation is bleached in chlorine free process

**Warranty**

<b>Standard Warranty</b>	1 year (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: 1 year 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

**Display B24T-7 LED**

The FUJITSU Display B24T-7 LED offers best ergonomics and usability for intensive office use with a 4-in-1 stand.

Order Code:  
S26361-K1454-V140

**Display E24T-7 LED**

The FUJITSU Display E24T-7 LED combines comfortable ergonomics with best-in-class energy saving technology like ECO operation mode.

Order Code:  
S26361-K1539-V160

**Mouse M440 ECO**

Fujitsu Mouse M440 ECO is made from 100% bio material and has a completely PVC free cable. The elegant M440 ECO works on nearly every surface and follows all your hand movements smoothly and precisely. It features two main buttons and as well as a scroll wheel providing comfortable computing to both right and left-handed users.

Order Code:  
S26381-K450-L200

**SOUNDSYSTEM DS E2000 Air**

The new more powerful SOUNDSYSTEM DS E2000 Air gives you impressive, well-balanced sound throughout the frequency band. It is an unbeatable USB speaker set with a surprisingly small form factor. The robust satellite speakers are decorated with a deluxe piano finish and the base is adorned with warm ambient lighting.

Order Code:  
S26391-F7128-L600

**UC&C USB Headset Stereo H650e**

The UC&C USB Headset Stereo H650e is the ultimate in style and functionality. Long, uncomfortable work calls are a thing of the past thanks to the cushioned ear pads and crystal clear sound. Adjustable headband and microphone provides the perfect fit for everyone. Optimized for Microsoft® Lync™ the headset displays a red 'in-call' LED to let your co-workers know when you're available, thus helping to boost office productivity.

Order Code:  
S26391-F7139-L10

**Busylight UC Lync**

Boost communication and productivity in the office with the Busylight. The genius of this device is that it both advertises your present working state and promotes the use of Lync, making your office more efficient. Perfect for the work environment in open-plan offices, the Busylight makes users feel comfortable with Lync's features and eases the transition from traditional office internal telephone systems.

Order Code:  
S26391-F7139-L30

**Keyboard KBPC PX ECO**

Fujitsu's KBPC PX ECO keyboard is the perfect contribution to Green IT. The keyboard is made out of 45% renewable raw material and comes with a PVC free USB cable. In addition, the KBPC PX ECO offers first class comfort and ergonomics. It attracts attention with its impressive modern design and useful extras.

S26381-K341-L1\*\* (\*\*: country specific variation)



## More information

### Fujitsu OPTIMIZATION Services

In addition to FUJITSU ESPRIMO P520 E85+, 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 ESPRIMO P520 E85+, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.  
[www.fujitsu.com/fts/ESPRIMO](http://www.fujitsu.com/fts/ESPRIMO)

### 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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