

Fujitsu recommends Windows.

# Data Sheet

## FUJITSU ESPRIMO E520 E85+ Desktop PC

Your Flexible and Economic PC

FUJITSU ESPRIMO E520 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™ i7-4770 processor (4 Cores / 8 Threads, 3.40 GHz, up to 3.9 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™ i5-4670 processor (4 Cores / 4 Threads, 3.40 GHz, up to 3.8 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™ i5-4570 processor (4 Cores / 4 Threads, 3.20 GHz, up to 3.6 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® Core™ i3-4130 processor (2 Cores / 4 Threads, 3.40 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 G3420 (2 Cores / 2 Threads, 3.20 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® Pentium® processor G3220 (2 Cores / 2 Threads, 3.00 GHz, 3 MB, Intel® HD Graphics)
	Intel® Celeron® processor G1840 (2 Cores / 2 Threads, 2.80 GHz, 2 MB, Intel® HD Graphics)
Intel® Celeron® processor G1820 (2 Cores / 2 Threads, 2.70 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 SSHD (Solid State Hard Disk, Hybrid drive) SSD (Solid State Disk) SED (Self-Encrypting 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® GeForce® GT630 DisplayPort 2GB LP, 2 GB
	NVIDIA® GeForce® 605 DisplayPort 1GB LP, 1 GB
	DVI to VGA Adapter
	DP to DVI-D (single link) Adapter Cable
	DP Extension Card
<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 E520 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, identical memory modules in each channel are necessary (minimum 2 modules).
<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)
<b>Controller functions</b>	Serial ATA II (3 Gbit) Serial ATA III (6 Gbit) NCQ AHCI
<b>Interfaces</b>	
<b>Audio: line-in</b>	1

**Interfaces**

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	3
3.5-inch internal bays	1
3.5-inch external bays	1
5.25-inch external bays	1
Drive bay notes	optional external bay as internal 3,5"

**Slots**

PCI-Express 3.0 x16	1 x (210 mm / 7.87 inch) Low profile
PCI-Express 2.0 x4 (mech. x16)	1 x (210 mm / 7.87 inch) Low profile
PCI-Express x1	2 x (210 mm / 8.27 inch) Low profile

**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
TFT resolution (DVI)	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

**Graphics on board**

<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=c831681f-dc6e-4433-9410-70f4125f6702">http://docs.ts.fujitsu.com/dl.aspx?id=c831681f-dc6e-4433-9410-70f4125f6702</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 L <sub>wad</sub> (in B) / Workplace related A-weighted sound pressure level L <sub>pAm</sub> (in dB(A)) Bystander position Operator position
<b>Standard noise operation mode: CPU 50% load</b>	4.0 B / 26 dB(A) bystander position / 29 dB (A) operator position
<b>Standard noise operation mode: HDD load</b>	3.5 B / 22 dB(A) bystander position / 24 dB (A) operator position
<b>Standard noise operation mode: Idle mode</b>	3.5 B / 21 dB(A) bystander position / 23 dB (A) operator position
<b>Standard noise operation mode: ODD load</b>	4.7 B / 33 dB(A) bystander position / 38 dB (A) operator position
<b>Standard noise operation mode: Office applications 2.0</b>	3.4 B / 21 dB(A) bystander position / 23 dB (A) operator position

**Noise emission**

<b>Blue angel noise emission according certification</b>	According to ISO 7779:2010, ECMA-74 for max. possible configuration
<b>Blue angel noise notes / description</b>	A-weighted sound power level L <sub>wad</sub> (in B); 1B = 10dB
<b>Blue angel noise operation mode: HDD load</b>	3.9 B = 39 dB
<b>Blue angel noise operation mode: Idle mode</b>	3.8 B = 38 dB
<b>Blue angel noise operation mode: ODD load</b>	4.9 B = 49 dB

**Dimensions / Weight / Environmental**

<b>Dimensions (W x D x H)</b>	330 x 405 x 104 mm 13.0 x 15.95 x 4.1 inch
<b>Operating position</b>	horizontal / vertical (optional, feet needed)
<b>Weight</b>	10 kg
<b>Weight (lbs)</b>	22.05 lbs
<b>Weight notes</b>	Actual weight may vary depending on configuration
<b>Operating ambient temperature</b>	10 - 35 °C (50 - 95 °F)
<b>Operating relative humidity</b>	5 - 85 % (relative humidity)

**Compliance**

<b>Product</b>	ESPRIMO E520
<b>Model</b>	DTL2
<b>Germany</b>	TÜV GS Blauer Engel / Blue Angel
<b>Europe</b>	CE
<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) EPEAT® Gold (dedicated regions) ENERGY STAR® 6.0 (dedicated regions)
<b>Compliance link</b>	<a href="http://globalsp.ts.fujitsu.com/sites/certificates">http://globalsp.ts.fujitsu.com/sites/certificates</a>

**Additional Software**

<b>Additional software (preinstalled)</b>	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)
<b>Additional software (optional)</b>	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**

<b>Manageability technology</b>	DeskUpdate Driver management PXE 2.1 Boot code Wake up from S5 (off mode) WoL (Wake on LAN)
<b>Manageability software</b>	DeskView Client DeskView Instant BIOS Management DeskView Integration for Symantec Management Platform

**Manageability**

DeskView components	Inventory Management BIOS Management Driver Management Security Management Alarm Management
Supported standards	DMI PXE WMI
Manageability link	<a href="http://www.fujitsu.com/fts/manageability">http://www.fujitsu.com/fts/manageability</a>

**Security**

Physical Security	Kensington Lock support Eye for padlock
System and BIOS Security	Boot sector virus protection Write protect option for the Flash EPROM Control of external interfaces Optional: Trusted platform module (TPM 1.2)
User Security	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
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**Packaging information**

Packaging dimension (mm)	467 x 265 x 540 mm
Packaging dimension (inch)	18.39 x 10.43 x 21.26 inch
Max. quantity / pallet	28
Material - Weight (g) Carton	1140 g
Material - Weight (lbs) Carton	2.51 lbs
Material - Weight (g) EPS / PS	180 g
Material - Weight (lbs) EPS / PS	0.4 lbs
Material - Weight (g) PE	60 g
Material - Weight (lbs) PE	0.13 lbs
Packaging notes	printed user documentation is bleached in chlorine free process

**Warranty**

Standard Warranty	1 year (depending on country)
Service level	Bring-In / Onsite Service (for countries within region FTS CEMEA&I, for all other countries depending on local regulations, minimum: 1 year material warranty)
Warranty Terms & Conditions	<a href="http://support.ts.fujitsu.com/warranty">http://support.ts.fujitsu.com/warranty</a>

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

Recommended Service	9x5, Response Time: Next Business Day
Spare Parts availability	5 years after end of product life
Service Weblink	<a href="http://www.fujitsu.com/fts/services/support">http://www.fujitsu.com/fts/services/support</a>

## Recommended Accessories

**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 P2100 Tube**

Taking inspiration from a hi-fi sound bar, the Fujitsu SOUNDSYSTEM DS P2100 Tube presents you with living room design art pieces for acoustic enjoyment. Automatic amplifier adjustment ensures extremely low distortion, which will protect the hearing and avoid speaker damage. With new convenient volume control- Fade-in & Fade-out audio effect. The small & robust satellite speaker is decorated with a deluxe piano finish and the aluminum tube is adorned with a fine print of an exotic motif at its base.

Order Code:  
S26391-F7128-L500

**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 E520 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 E520 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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