

Data Sheet

Fujitsu ESPRIMO E520 E85+

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 small form factor desktop for projects

- 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

Processor	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™ i5-4460 processor (4 Cores / 4 Threads, 3.20 GHz, up to 3.4 GHz, 6 MB, Intel® HD Graphics 4600) Intel® Core™ i3-4170 processor (2 Cores / 4 Threads, 3.70 GHz, 3 MB, Intel® HD Graphics 4400) Intel® Pentium® processor G3460 (2 Cores / 2 Threads, 3.50 GHz, 3 MB, Intel® HD Graphics) Intel® Pentium® processor G3260 (2 Cores / 2 Threads, 3.30 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)
Operating systems	
Operating system	Windows 8.1 Pro Windows 8.1 Windows 7 Professional 64-bit Windows 7 Professional 32-bit
Operating system compatible	Windows 10 Pro (license + recovery media only) openSUSE Linux
Memory modules	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
Hard disk drives (internal)	SSD SATA III Premium, 512 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 SSD SATA III, 128 GB, 2.5-inch SSD SATA III, 256 GB, 2.5-inch, SED SSD SATA III, 128 GB, 2.5-inch, SED SSHD SATA III, 7,200 rpm, 1,000 GB, 3.5-inch SSHD SATA III, 5,400 rpm, 500 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
Hard disk notes	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)
Graphics	NVIDIA® GeForce® GTX 745 2 GB LP, 2 GB NVIDIA® GeForce® GT630 DisplayPort 2GB LP, 2 GB NVIDIA® GeForce® 605 DisplayPort 1GB LP, 1 GB DVI-I to VGA Adapter DP to DVI-D (single link) Adapter Cable DP Extension Card
Drives (optional)	BD Triple Writer SATA slim (tray) DVD-ROM DVD Super Multi MultiCard Reader 24in1 USB 2.0 3.5"

**Interface add on cards/components
(optional)**

WLAN 802.11 a/g/n (2x2), (dedicated regions only, not for Indonesia)
Parallel Interface
Gigabit Ethernet PCIe x1, DS
eSATA Interface
Dual serial card PCIe x1

Base unit

Base unit	ESPRIMO E520 E85+
Mainboard	
Mainboard type	D3220
Formfactor	µATX
Chipset	Intel® B85
Processor socket	LGA 1150
Processor quantity maximum	1
Supported capacity RAM (max.)	32 GB
Memory slots	4 DIMM (DDR3)
Memory frequency	1,600 MHz
Memory notes	Dual channel support For dual channel performance, identical memory modules in each channel are necessary (minimum 2 modules).
LAN	10/100/1,000 MBit/s Intel® I217LV
BIOS version	AMI Aptio 4.6
BIOS features	BIOS Flash EPROM update by software Recovery BIOS Unified Extensible Firmware Interface (UEFI)
Audio type	On board
Audio codec	Realtek ALC671
Audio features	Internal speaker supports audio playback (optional), High Definition Audio, 5.1 surround sound
I/O controller on board	
Serial ATA total	4
thereof SATA III	4
thereof eSATA	1 (optional)
Controller functions	Serial ATA II (3 Gbit) Serial ATA III (6 Gbit) NCQ AHCI
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 3.1 Gen1 (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)

Interfaces

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
TFT resolution (DisplayPort)	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)

Graphics on board

Graphics features	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)
Graphics notes	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

Power efficiency note	power supply efficiency (at 230V; 20% / 50% / 100% load) : 83% / 86% / 85% 0-Watt mode with hard-off switch
Rated voltage range	100 V - 240 V
Rated frequency range	50 Hz - 60 Hz
Operating voltage range	90 V - 264 V
Operating line frequency range	47 Hz - 63 Hz
Max. output of single power supply	280 W
Power factor correction/active power	active
Monitor outlet	No

Power consumption

Power consumption note	See white paper Energy Consumption 0-Watt mode with hard-off switch
Link to Energy White Paper	http://docs.ts.fujitsu.com/dl.aspx?id=d2e45dd8-0189-4c6f-94b0-94247e523506

Heat dissipation

Heat dissipation notes	See white paper Energy Consumption
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Noise emission

Related Processors for noise	Intel® Core™ i7 4770
Standard noise emission	2x2 GB, HDD, ODD, Windows According to ISO 7779:2010, ECMA-74
Standard noise notes / description	Bystander position Operator position
Standard noise operation mode: CPU 50% load	4.0 B / 26 dB(A) bystander position / 29 dB (A) operator position
Standard noise operation mode: HDD load	3.5 B / 22 dB(A) bystander position / 24 dB (A) operator position
Standard noise operation mode: Idle mode	3.5 B / 21 dB(A) bystander position / 23 dB (A) operator position
Standard noise operation mode: ODD load	4.7 B / 33 dB(A) bystander position / 38 dB (A) operator position
Standard noise operation mode: Office applications 2.0	3.4 B / 21 dB(A) bystander position / 23 dB (A) operator position
Blue angel noise emission according certification	According to ISO 7779:2010, ECMA-74 for max. possible configuration
Blue angel noise operation mode: HDD load	3.9 B = 39 dB
Blue angel noise operation mode: Idle mode	3.8 B = 38 dB
Blue angel noise operation mode: ODD load	4.9 B = 49 dB

Dimensions / Weight / Environmental

Dimensions (W x D x H)	330 x 405 x 104 mm 13.0 x 15.95 x 4.1 inch
Operating position	horizontal / vertical (optional, feet needed)
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 E520
Model	DTL2
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	https://sp.ts.fujitsu.com/sites/certificates

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)
Manageability software	DeskView Client DeskView Instant BIOS Management
DeskView components	Inventory Management BIOS Management Driver Management Security Management Alarm Management
Supported standards	DMI (Desktop Management Interface) SMBIOS (System Management BIOS) PXE (Preboot Execution Environment) WMI (Windows Management Instrumentation) WBEM (Web Based Enterprise Management) CIM (Common Information Model)
Manageability link	http://www.fujitsu.com/fts/manageability

Security

Physical Security	Kensington Lock support Eye for padlock
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Security	
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
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	1180 g
Material - Weight (lbs) Carton	2.6 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	
Warranty period	1 year (for countries in EMEA)
Warranty type	Bring-In / Onsite Service (for countries within region EMEA, for all other countries depending on local regulations)
Product Support Services - the perfect extension	
Recommended Service	9x5, Onsite Response Time: Next Business Day
Spare Parts availability	5 years after end of product life
Service Weblink	http://www.fujitsu.com/fts/services/support

Recommended Accessories

Display B24-8 TE Pro		The FUJITSU Display B24-8 TE Pro is made for intensive office work. With visual and mechanical ergonomics this marble-grey display enables fatigue-free working for hours in front of the screen. The large 60.5 cm (23.8-inch) screen allows you to keep always track of all open applications. This high-quality display works unfailingly around the clock. Easy connectivity, manageability and usability help you increase your productivity.	Order Code: S26361-K1577-V140
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
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

Keyboard KBPC PX ECO



Fujitsu's KBPC PX ECO keyboard is the perfect contribution to Green IT. The S26381-K341-L1** (**: keyboard is made out of 45% renewable raw material and comes with a PVC country specific variation) 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.

More information

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.

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/products/computing/

Software

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.
<http://ts.fujitsu.com>

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