FUJITSU

Data Sheet
FUJITSU Desktop ESPRIMO P920 E85+

Excellent Performance, Expandability and Efficiency

FUJITSU ESPRIMO P920 PCs give you the absolute highest PC manageability, performance and expandability. With the 86% efficient power supply, you'll also save on energy costs. The use of identical components within the product family ensures perfect infrastructure compatibility. At retirement, Fujitsu's distinctive EraseDisk option wipes your data securely.

Microtower
Maximum performance and optimal extendability
- Top-quality, high-value microtower, 7 drive bays, 4 PCI express interfaces

Green technology
Fujitsu's contribution to environmental protection and sustainability
- Halogen-free printed circuit of mainboard, sophisticated product concept for the entire lifecycle

Quiet
Pleasant working environment due to an extremely quiet system
- Innovative hardware design, optimized cooling concept ensures silent operations

System management
Simple system administration for complex IT infrastructures
- Intel® vPro™ technology (depending on processor) and DeskView manageability suite

Energy efficiency and high performance
Low power consumption combined with high performance
- 4th generation Intel® Core™ processor family and a power supply with 85% energy efficiency

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™ 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)
	Intel® vPro™ Logo with Intel® Core i5 and Core i7 processors *with Intel® Turbo Boost Technology (clock speed and performance will vary depending on workload and other variables) Intel® Smart Response Technology supported by Intel® Core™ i3, i5 and i7 processors

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, 500 GB, 3.5-inch, business critical
	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 II, 5,400 rpm, 320 GB, 2.5-inch

Hard disk notes	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)

Graphics	NVIDIA® NVS™ 315, 1 GB
	NVIDIA® GeForce® GTX 745 2 GB FH, 2 GB
	NVIDIA® GeForce® GT630 DisplayPort 2GB FH "0-Watt", 2 GB
	NVIDIA® GeForce® 605 DisplayPort 1GB FH, 1 GB
	LFH59/ 2x DVI-I adapter cable
	LFH59/ 2x DP adapter cable
	DVI-I to VGA Adapter
	DP to DVI-D (single link) Adapter Cable
	DP Extension Card
	AMD® Radeon R9 255 FH, 2 GB

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)	
	Parallel Interface
	Gigabit Ethernet PCIe x1, DS
	eSATA Interface
	Dual serial card PCIe x1

Base unit

Base unit	ESPRIMO P920 E85+

Mainboard	
Mainboard type	D3222
Formfactor	µATX
Chipset	Intel® Q87
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, a minimum of 2 memory modules have to be ordered. Capacity per channel has to be the same.
LAN	10/100/1,000 MBit/s Intel® I217LM
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, High Definition audio, 5.1 surround sound

I/O controller on board	
Serial ATA total	6
thereof SATA III	6
thereof eSATA	2
Controller functions	Serial ATA II (3 Gbit) Serial ATA III (6 Gbit) NCQ AHCI RAID 0/1/5/10

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	10
USB 3.0 total	4

Interfaces

USB front	4x 2.0 or 2x 2.0/ 2x 3.0 (optional)
USB rear	4x 2.0 / 2x 3.0
USB internal	2
VGA	1
DisplayPort	1 (second DisplayPort 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	7
2.5-inch internal bays	1
3.5-inch internal bays	2
3.5-inch external bays	2
5.25-inch external bays	2

Slots

PCI-Express 3.0 x16	1 x (312 mm / 12.29 inch) Full height
PCI-Express 2.0 x4 (mech. x16)	1 x (312 mm / 12.29 inch) Full height
PCI-Express x1	2 x (170 mm / 6.7 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
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 One DisplayPort connector can be converted to DVI-D or HDMI with an optional external adapter 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=0dd11af5-3dce-47b0-9d68-a51eb970c7f0

Heat dissipation

Heat dissipation notes	See white paper Energy Consumption

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 operation mode: CPU 50% load	4.0 B / 26 dB(A) Bystander ; 31 dB(A) Operator position
Standard noise operation mode: HDD load	3.4 B / 21 dB(A) Bystander ; 26 dB(A) Operator position
Standard noise operation mode: Idle mode	3.3 B / 19 dB(A) Bystander; 23 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	3.3 B / 19 dB(A) Bystander; 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	3.7 B = 37 dB (A)
Blue angel noise operation mode: Idle mode	3.3 B = 33 dB (A)
Blue angel noise operation mode: ODD load	4.5 B = 45 dB (A)

Dimensions / Weight / Environmental

Dimensions (W x D x H)	175 x 419 x 395 mm
	6.89 x 16.5 x 15.56 inch

Dimensions / Weight / Environmental

Operating position	Vertical
Weight	11 kg
Weight (lbs)	24.25 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 P920
Model	MI5W
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	http://globalsp.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) Intrusion switch (optional) iAMT 9.0 (depending on CPU) 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 Integrated cabinet lock (optional)

Security

System and BIOS Security	EraseDisk (optional)
	Boot sector virus protection
	Write protect option for the Flash EPROM
	Embedded security (TPM 1.2)
	Control of all USB interfaces
	External USB ports can be disabled separately
	Control of external interfaces
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

	Keyboard on (Special Fujitsu keyboard required)
	Thermal management

Serviceability

	EasyFix
	EasyChange for HDD
	EasyChange for optical drives

Packaging information

Packaging dimension (mm)	516 x 278 x 562 mm
Packaging dimension (inch)	20.31 x 10.94 x 22.13 inch
Max. quantity / pallet	24
Material - Weight (g) Carton	1280 g
Material - Weight (lbs) Carton	2.82 lbs
Material - Weight (g) EPS / PS	190 g
Material - Weight (lbs) EPS / PS	0.42 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	3 years (depending on country)
Warranty type	Bring-In / Onsite Service (for countries within region EMEIA, for all other countries depending on local regulations)
Warranty Terms & Conditions	http://support.ts.fujitsu.com/warranty

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 B23T-7 LED		The FUJITSU B23T-7 LED Display with excellent ergonomics makes intensive office work extremely comfortable. This highly reliable display offers superb usability and power-saving features to help reduce your labor as well as energy costs. With wide viewing angle technology, flexible connectivity, and easy manageability, the FUJITSU B23T-7 LED Display can help you improve productivity.	Order Code: S26361-K1496-V140
Display P24W-7 LED		If you're a pixel, color and performance-hungry professional using demanding applications, the FUJITSU P24W-7 LED Display is the perfect choice. The display provides outstanding picture performance thanks to a cutting-edge graphic panel. It also boasts unique and innovative features such as our patent-applied Presence Sensor technology and the Always Available Powered USB Hub.	Order Code: S26361-K1498-V140

Display P24T-7 LED		For demanding pixel and performance-hungry professionals, the FUJITSU P24T-7 LED Display is the perfect choice. The display provides exceptional picture and color performance. It also boasts unique and innovative features such as USB support even in standby, the patent-applied Presence Sensor to detect the screen during absence and a call indicator to signal incoming calls and prepares you for modern UC&C applications.	Order Code: S26361-K1543-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
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
HS E2000 Communicator Headset		The Fujitsu HS E2000 Communicator headset allows you to use your personal computer for Voice over IP (VoIP) in stereo audio quality. This premium headset is designed to provide superb audio quality and comfort for the telephony, internet chat, speech recognition, video conferencing and multimedia applications.	Order Code: S26391-F7139-L5
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 Desktop ESPRIMO P920 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/products/computing/

Software

www.fujitsu.com/software/

More information

Learn more about FUJITSU Desktop ESPRIMO P920 E85+, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
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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