FUJITSU

Fujitsu recommends Windows® 7.

Data Sheet
Fujitsu ESPRIMO P510 E85+ Desktop PC

Your Flexible and Economic PC

Fujitsu All-round ESPRIMO PCs deliver high-quality computing for your office applications and projects at a very attractive price point. You can choose cost-optimized fixed configurations for immediate delivery. Alternatively, you can use configuration options to meet your specific hardware needs, while staying within your budget.

Intelligent performance and best price/performance ratio
Powerful and cost-effective project system
■ 3rd generation Intel® Core™ processor family

Flexibility
Freedom of choice with tailored systems, perfect fit for specific requirements
■ Flexible logistics concept - Customizing program (made4you)

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
■ Up to 86% energy efficient power supply

Components

Processor	Intel® Core™ i7-3770 processor (4 Cores / 8 Threads, up to 3.90 GHz 3.40 GHz, 8 MB, Intel® HD Graphics 4000 with 3rd generation Core i processors) *
	Intel® Core™ i5-3570 processor (4 Cores / 4 Threads, up to 3.80 GHz 3.40 GHz, 6 MB, Intel® HD Graphics 2500) *
	Intel® Core™ i5-3470 processor (4 Cores / 4 Threads, up to 3.60 GHz 3.20 GHz, 6 MB, Intel® HD Graphics 2500) *
	Intel® Core™ i5-2400 processor (4 Cores / 4 Threads, 3.10 GHz, 6 MB, Intel® HD Graphics 2000)
	Intel® Core™ i3-2120 processor (2 Cores / 4 Threads, 3.30 GHz, 3 MB, Intel® HD Graphics 2000)
	Intel® Pentium® processor G860 (2 Cores / 2 Threads, 3.00 GHz, 3 MB, Intel® HD Graphics)
	Intel® Pentium® processor G850 (2 Cores / 2 Threads, 2.90 GHz, 3 MB, Intel® HD Graphics)
	Intel® Pentium® processor G640 (2 Cores / 2 Threads, 2.80 GHz, 3 MB, Intel® HD Graphics)
	Intel® Pentium® processor G630 (2 Cores / 2 Threads, 2.70 GHz, 3 MB, Intel® HD Graphics)
	Intel® Celeron® processor G540 (2 Cores / 2 Threads, 2.50 GHz, 2 MB, Intel® HD Graphics)
	Intel® Celeron® processor G530 (2 Cores / 2 Threads, 2.40 GHz, 2 MB, Intel® HD Graphics)
	*with Intel® Turbo Boost Technology (clock speed and will vary depending on workload and other variables)
Operating systems	
Operating system	Windows® 7 Home Basic (EM) 32-bit Windows® 7 Home Premium 64-bit Windows® 7 Professional 32-bit Windows® 7 Professional 64-bit
Operating system compatible	openSUSE Linux Windows® XP
Operating system notes	Limited Windows® XP support. Microsoft discontinued Windows® XP certification on system level, basic drivers via http://support.ts.fujitsu.com
Memory modules	2 GB (1 module(s) 2 GB) DDR3, unbuffered, non-ECC, 1600 MHz, PC3-12800, DIMM
	4 GB (1 module(s) 4 GB) DDR3, unbuffered, non-ECC, 1600 MHz, PC3-12800, DIMM
	8 GB (1 module(s) 8 GB) DDR3, unbuffered, non-ECC, 1600 MHz, PC3-12800, DIMM
Hard disk drives (internal)	SSD SATA III, 256 GB, 2.5-inch
	SSD SATA III, 128 GB, 2.5-inch
	HDD SATA III, 7200 rpm, 2000 GB, 3.5-inch
	HDD SATA III, 7200 rpm, 1000 GB, 3.5-inch
	HDD SATA III, 7200 rpm, 500 GB, 3.5-inch
	HDD SATA III, 7200 rpm, 250 GB, 3.5-inch
	HDD SATA II, 7200 rpm, 320 GB, 2.5-inch
	HDD SATA II, 7200 rpm, 160 GB, 2.5-inch
Hard disk notes	Up to 18 GB of HDD space is reserved for system recovery
Graphics add on cards (optional)	NVIDIA® Quadro® NVS 300, 512 MB
	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
	DP to DVI-D (single link) Adapter Cable
	ATI Radeon® HD7350 1GB FH, 1 GB
Drives (optional)	BD Triple Writer SATA slim (tray)
	DVD-ROM
	DVD Super Multi
	MCR 24in1 & USB 3.0 front con., 3.5″
	MultiCard Reader 24in1 USB 2.0 3.5″

Interface add on cards/components (optional)

	WLAN III, 802.11g/Draft-n (Windows only)
	Parallel Interface
	Gigabit Ethernet PCIe x1, DS
	eSATA Interface
	Dual serial card PCIe x1, powered
	Dual serial card PCIe x1

Base unit	ESPRIMO P510 E85+

Mainboard

Mainboard type	D3171
Formfactor	µATX
Chipset	Intel® B75
Processor socket	LGA 1155
Processor quantity maximum	1
Memory slots	4 DIMM (DDR3)
Supported capacity RAM (max.)	32 GB
Memory frequency	1600 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	10/100/1000 MBit/s Realtek RTL 8111E
BIOS version	AMI Aptio 4.6
BIOS features	BIOS Flash EPROM update by software Recovery BIOS Unified Extensible Firmware Interface (UEFI)
Audio codec	Conexant CX20642
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	1
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 3.0 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
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)

Interfaces

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

Slots

PCI-Express 3.0 x16	1 x (210 mm / 8.27 inch) Full height
PCI-Express x1	2 x (190 mm / 7.48 inch) Full height
PCI (32-bit / 33 MHz)	1 x (170 mm / 6.7 inch) Full height

Graphics on board

Graphics brand name	Intel® HD Graphics, HD Graphics 2000, HD Graphics 2500, HD Graphics 4000 (depending on CPU)
Shared video memory	up to 1759 MB
TFT resolution (VGA)	1024 x 768 pixel 1280 x 1024 pixel 1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1600 x 1200 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel
TFT resolution (DVI)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel
Graphics features	Dual display support DirectX® 10.1 or DirectX® 11 (depending on CPU) HDCP support Open GL® 3.1 (depending on CPU) Open CL™ 1.1 (depending on CPU) For multi monitoring mode, graphics card and integrated graphics run in parallel (Microsoft® Windows 7® only)
Graphics notes	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

Electrical values

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=af0a4b22-a8ed-4dd0-b377-e91bcfce02e0

Heat dissipation

Heat dissipation notes	See white paper Energy Consumption

Noise emission

Standard noise emission	2x2 GB, HDD, ODD, Windows According to ISO 7779:2010, ECMA-74
Standard noise notes / description	A weighted sound power level Lwad (in B) / Workplace related A-weighted sound pressure level LpAm (in dB(A)) Bystander position
Standard noise operation mode: HDD load	3.6 B / 23 dB(A)
Standard noise operation mode: Idle mode	3.5 B / 22 dB(A)
Standard noise operation mode: ODD load	4.7 B / 33 dB(A)
Standard noise operation mode: Office applications 2.0	3.5 B / 22 dB(A)
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	3.8 B = 38 dB
Blue angel noise operation mode: Idle mode	3.7 B = 37 dB
Blue angel noise operation mode: ODD load	4.7 B = 47 dB

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℃ (50 - 95℉)

Compliance

Product	ESPRIMO P510
Model	MI4W-3171
Germany	TÜV GS
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) ENERGY STAR® 5.0 (dedicated regions) EPEAT® in progress (dedicated regions)
Compliance link	https://sp.ts.fujitsu.com/sites/certificates/

Additional Software

Additional software (preinstalled)	Nero Essentials S (burning software)
	Fujitsu Recovery (Hard Disk Based Recovery)
	Norton Internet Security (incl. Firewall) 60 days version
	Microsoft® Office Starter: reduced-functionality Word and Excel® only, with advertising. No PowerPoint® or Outlook®.
	Buy Office 2010 to use the full-featured software.
Additional software (optional)	Recovery DVD for Windows®
	Drivers & Utilities DVD (DUDVD)
	CyberLink PowerDVD BD (playback software for Blu-ray Disc™, only with Blu-ray Disc™ drive / Blu-ray playback is not
	supported under Windows XP if the system runs on Intel onboard graphics)
	Nero 10 Essentials XL

Miscellaneous

	Thermal management

Compatibility (references)

	DMI 2.0
	PC 2001
	WMI 1.5
	USB 2.0
	SMBIOS

Manageability

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

Security

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

Serviceability

Packaging information

Packaging dimension (mm)	500 x 290 x 540 mm
Packaging dimension (inch)	19.69 x 11.42 x 21.26 inch
Max. quantity / pallet	24
Material - Weight (g) Carton	1270 g
Material - Weight (lbs) Carton	2.8 lbs
Material - Weight (g) EPS / PS	160 g
Material - Weight (lbs) EPS / PS	0.35 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
Service level	Bring-In / On-Site Service (depending on country)
Maintenance and Support Services - the perfect extension	
Recommended Service	5x9, Response Time: Next Business Day
Spare Parts availability	5 years

Warranty

Service Weblink	http://www.fujitsu.com/fts/services/support/index.html

More information

Fujitsu platform solutions

In addition to Fujitsu ESPRIMO P510 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/services/computing/

Software

www.fujitsu.com/software/

More information

Learn more about Fujitsu ESPRIMO P510 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 resolve issues of environmental energy efficiency through IT. Please find further information at http://www.fujitsu.com/global/about/environment/

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