

Fujitsu recommends Windows® 7.

# Data Sheet

## Fujitsu ESPRIMO P3521 E-Star5 Desktop PC

Your Flexible and Economic PC

The Fujitsu ESPRIMO P3521 E-Star5 is the right choice for major customers requiring the latest standard features. This Microtower PC is the ultimate balance between top performance and very attractive prices. It already meets the ENERGY STAR® standard, thus saving energy costs and protecting the environment. Freely configurable, with proven technology and an extended product lifecycle of maximum 12 months, this PC is the perfect choice for cost-driven projects.



### Optimal price/performance ratio

Cost-effective system for major customer projects

- Entry-level PC with standard technology

### Flexibility

Freedom of choice with tailored systems, perfect fit for specific requirements

- Flexible logistic concept - customizing program (made4you)

### Reliability

Excellent quality and functional stability

- Proprietary development and production in Europe

### Lifecycle

Hardware continuity for long lasting project needs

- Managed lifecycle up to 12 months

### Meets ENERGY STAR® and Blue Angel requirements

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

- Effective power supply of maximum 87%



# Components

<b>Processor</b>	Intel® Pentium® processor E6600 (2 Cores / 2 Threads, 3.06 GHz, 2 MB, 1066 MHz)
<b>Operating systems</b>	
<b>Operating system</b>	Genuine Windows® 7 Starter (EM) 32-bit Genuine Windows® 7 Home Basic (EM) 32-bit Genuine Windows® 7 Home Premium 64-bit Genuine Windows® 7 Professional 32-bit Genuine Windows® 7 Professional 64-bit
<b>Operating system compatible</b>	openSUSE Linux Genuine Windows Vista® Genuine Windows® XP
<b>Operating system notes</b>	Limited Windows® XP support. Microsoft discontinued Windows® XP certification on system level, basic drivers via <a href="http://support.ts.fujitsu.com">http://support.ts.fujitsu.com</a>
<b>Memory modules</b>	
	1 GB (1 module(s) 1 GB) DDR3, unbuffered, non-ECC, 1066 MHz, PC3-8500, DIMM
	2 GB (1 module(s) 2 GB) DDR3, unbuffered, non-ECC, 1066 MHz, PC3-8500, DIMM
	4 GB (1 module(s) 4 GB) DDR3, unbuffered, non-ECC, 1066 MHz, PC3-8500, DIMM
<b>Hard disk drives (internal)</b>	
	SSD SATA, 128 GB, 2.5-inch
	HDD SATA II, 7200 rpm, 1000 GB, 3.5-inch, S.M.A.R.T.
	HDD SATA II, 7200 rpm, 500 GB, 3.5-inch, S.M.A.R.T.
	HDD SATA II, 7200 rpm, 320 GB, 3.5-inch, S.M.A.R.T.
<b>Hard disk notes</b>	Supporting NCQ and 3 GBit
<b>Graphics add on cards (optional)</b>	
	NVIDIA® GeForce® GT 420
	NVIDIA® GeForce® 405 display port full height
	DVI Extension Adapter
	DP to DVI-D (single link) Adapter Cable
	ATI Radeon® HD 5450, 512 MB
<b>Drives (optional)</b>	
	DVD-ROM
	DVD Super Multi
	MultiCard Reader 20in1, USB 2.0, 3.5-Inch
	MultiCard Reader 20in1 USB 3.0 front con., 3.5-Inch
<b>Interface add on cards/components (optional)</b>	
	USB 3.0 PCIe x1
	Parallel Interface
	Gigabit Ethernet PCIe x1, DS
<b>Base unit</b>	ESPRIMO P3521 E-Star5
<b>Mainboard</b>	
<b>Mainboard type</b>	D3041
<b>Formfactor</b>	µATX
<b>Chipset</b>	Intel® G41
<b>Processor socket</b>	LGA 775
<b>Processor quantity maximum</b>	1
<b>System bus (FSB / HT / QPI)</b>	up to 1333 MHz
<b>Memory slots</b>	2 DIMM (DDR3)
<b>Supported capacity RAM (max.)</b>	8 GB
<b>Memory frequency</b>	1066 MHz

**Mainboard**

Memory notes	Dual channel support. For dual channel performance, 2 memory modules have to be ordered. Capacity per channel has to be the same.
LAN	10/100/1000 MBit/s Realtek RTL8111DL
BIOS version	Phoenix 6.0
BIOS features	BIOS Flash EPROM update by software Recovery BIOS
Audio codec	Realtek ALC663
Audio features	High Definition audio, 5.1 surround sound

**I/O controller on board**

Serial ATA total	4
thereof eSATA	0
Controller functions	Serial ATA II 3 GBit

**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 front	2
USB rear	4
USB internal	2
VGA	1
DisplayPort	1 (optional)
DVI	1 (optional)
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)
Interface Module notes	Anytime USB charge functionality

**Input device / components**

	Optical USB tilt wheel mouse
Input devices (optional)	Optical USB/PS2 tilt wheel mouse

**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 x16	1 x (210 mm) Full height
PCI-Express x1	1 x (210 mm) Full height
PCI (32-bit / 33 MHz)	2 x (170/ 220 mm) Full height

**Graphics on board**

Graphics brand name	Intel® GMA 4500
Shared video memory	up to 1759 MB
Refresh rate 1024 x 768 (recommended / max.)	85 Hz / -
Refresh rate 1280 x 1024 (recommended / max.)	85 Hz / -

**Graphics on board**

Refresh rate 1600 x 1200 (recommended / max.)	85 Hz / -
TFT resolution (VGA)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 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
TFT resolution (DisplayPort)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel 2560 x 1440 pixel 2560 x 1600 pixel
Graphics features	Dual display support (optional with DVI/DP extension adapter) DirectX 10 HDCP support OpenGL® 2.0
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) : 85% / 87% / 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	300 W
Power factor correction/active power	active
Monitor outlet	No

**Power consumption**

Power consumption note	See white paper Energy Consumption
Link to Energy White Paper	<a href="http://docs.ts.fujitsu.com/dl.aspx?id=3b3747a5-b8a7-43e8-af90-8ff22b7388cd">http://docs.ts.fujitsu.com/dl.aspx?id=3b3747a5-b8a7-43e8-af90-8ff22b7388cd</a>

**Heat dissipation**

Heat dissipation notes	See white paper Energy Consumption
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**Noise for standard configuration (HDD, ODD, FDD)**

Noise emission	According to ISO9296
Related Processors for noise	Intel® Core™2 Duo E8600
Noise Operation mode 1: ODD load (Blue angel requirement)	3.9 B / 23 dB(A)
Noise Operation mode 2: HDD load (Blue angel requirement)	3.8 B / 23 dB(A)
Noise Operation mode 3: CPU 90% load (Blue angel requirement)	3.7 B / 22 dB(A)

**Noise for standard configuration (HDD, ODD, FDD)**

Noise Operation mode 4: High load	3.8 B / 23 dB(A)
Noise Operation mode 5: Office applications	3.8 B / 23 dB(A)
Idle mode (Blue Angel requirement)	3.7 B / 21 dB(A)
Noise notes / description	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

**Dimensions / Weight / Environmental**

Dimensions (W x D x H)	175 x 425 x 353 mm
Weight	approx. 11 kg
Weight notes	Actual weight may vary depending on configuration
Operating ambient temperature	10 - 35°C

**Compliance**

Product	ESPRIMO P3521
Model	MI4W-D3041
Germany	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 EPEAT® Silver (dedicated regions)
Compliance link	<a href="https://sp.ts.fujitsu.com/sites/certificates/">https://sp.ts.fujitsu.com/sites/certificates/</a>

**Additional Software**

Additional software (preinstalled)	Nero Essentials S (burning software) Norton Internet Security (incl. Firewall) 60 days version
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 9 Essentials XL

**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)
DeskView components	WoL (Wake on LAN)
Manageability link	<a href="http://ts.fujitsu.com/manageability">http://ts.fujitsu.com/manageability</a> <a href="http://www.altiris.com/fujitsu">http://www.altiris.com/fujitsu</a>

**Security**

System protection	Kensington Lock support Eye for padlock
Audit proof protection	Boot sector virus protection Write protect option for the Flash EPROM Boot protection for floppy disk / CD drive and write protection for floppy disk drive Control of all USB interfaces

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<b>Security</b>	
<b>Access protection</b>	User and supervisor BIOS password Optional: Access protection via external SmartCard reader Optional: Access protection via internal SmartCard reader
<b>Packaging information</b>	
<b>Packaging dimension</b>	500x290x540 mm
<b>Max. quantity / pallet</b>	24
<b>Material - Weight (g) Carton</b>	1270 g
<b>Material - Weight (g) EPS / PS</b>	210 g
<b>Material - Weight (g) PE</b>	appr. 60 g
<b>Packaging notes</b>	printed user documentation is bleached in chlorine free process
<b>Warranty</b>	
<b>Standard Warranty</b>	1 year
<b>Service level</b>	Bring-In / On-Site Service (depending on country)
<b>Maintenance and Support Services - the perfect extension</b>	
<b>Recommended Service</b>	5x9, Response Time: Next Business Day
<b>Spare Parts availability</b>	5 years
<b>Service Weblink</b>	<a href="http://ts.fujitsu.com/Supportservice">http://ts.fujitsu.com/Supportservice</a>

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## More information

### Fujitsu platform solutions

In addition to Fujitsu ESPRIMO P3521 E-Star5, 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/](http://www.fujitsu.com/global/services/computing/)

#### Software

[www.fujitsu.com/software/](http://www.fujitsu.com/software/)

### More information

Learn more about Fujitsu ESPRIMO P3521 E-Star5, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.  
<http://ts.fujitsu.com/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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