

Fujitsu recommends Windows® 7.

# Data Sheet

## Fujitsu ESPRIMO P710 E90+ Desktop PC

The Expandable Business Workhorse

Fujitsu ESPRIMO P710 PCs bring you highly expandable technology for your challenging business applications. The use of identical components within the product family ensures perfect infrastructure compatibility and simplifies rollout. A 92%-efficient power supply will ensure environmental compliance for years to come. Intel® Standard Manageability Technology keeps administration costs to a minimum. Plus, EraseDisk ensures secure system retirement

### Microtower

Maximum performance and optimal extendability

- High-quality, high-value microtower, 7 drive bays, 4 PCI/PCI express interfaces

### Energy efficiency

Reduce power consumption and costs - without any loss of performance

- Sophisticated technology, switched monitor outlet, low energy-consuming processors and enhanced power management settings

### Green technology

Fujitsu's contribution to environmental protection for the continued existence of our planet

- Halogen-free printed circuit of mainboard and power supply, sophisticated product concept for the entire lifecycle

### Quiet

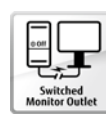
Pleasant working environment due to an extremely quiet system

- Innovative hardware design, optimized cooling concept ensures silent operations

### Serviceability

Easy to extend and optimal user-friendliness without any additional tools

- Easy access to all replaceable and expandable components



# Components

<b>Processor</b>	Intel® Core™ i7-3770 processor (4 Cores / 8 Threads, up to 3.9 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 3.8 GHz 3.40 GHz, 6 MB, Intel® HD Graphics 2500) *
	Intel® Core™ i5-3470 processor (4 Cores / 4 Threads, up to 3.6 GHz 3.20 GHz, 6 MB, Intel® HD Graphics 2500) *
	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 G640 (2 Cores / 2 Threads, 2.80 GHz, 3 MB, Intel® HD Graphics)
	Intel® Celeron® processor G540 (2 Cores / 2 Threads, 2.50 GHz, 2 MB, Intel® HD Graphics)
	*with Intel® Turbo Boost Technology (clock speed and will vary depending on workload and other variables)
<b>Operating systems</b>	
<b>Operating system</b>	Windows® 7 Home Basic (EM) 32-bit Windows® 7 Home Premium 64-bit Windows® 7 Professional 32-bit Windows® 7 Professional 64-bit
<b>Operating system compatible</b>	openSUSE Linux 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>	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
<b>Hard disk drives (internal)</b>	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, business critical 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
<b>Hard disk notes</b>	Up to 18 GB of HDD space is reserved for system recovery
<b>Graphics add on cards (optional)</b>	NVIDIA® Quadro® NVS 300, 512 MB 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 2nd NVIDIA® Quadro® NVS 300, 512 MB
<b>Drives (optional)</b>	BD Triple Writer SATA slim (tray) DVD-ROM DVD Super Multi MultiCard Reader 20in1, USB 2.0, 3.5-Inch

**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 P710 E90+

**Mainboard**

**Mainboard type** D3161  
**Formfactor** µATX  
**Chipset** Intel® Q75  
**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 Intel® 82579 V

**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, High Definition audio, 5.1 surround sound

**I/O controller on board**

**Serial ATA total** 5  
**thereof SATA III** 1  
**thereof eSATA** 2 (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** 10  
**USB 3.0 total** 4  
**USB front** 4x 2.0 or 2x 2.0/ 2x 3.0  
**USB rear** 6x 2.0 / 2x 3.0  
**USB internal** 2  
**VGA** 1 (via DVI to VGA adapter, part of shipment)  
**DisplayPort** 1  
**DVI** 1 (DVI-I)  
**Serial (RS-232)** 1 (9pin, 16 byte FIFO, 16550 compatible)  
**Mouse / Keyboard (PS/2)** 2

**Interfaces**

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	1 x (312 mm / 12.29 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
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 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 on board**

<b>Graphics notes</b>	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
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**Electrical values**

<b>Power efficiency note</b>	power supply efficiency (at 230V; 20% / 50% / 100% load) : 88% / 92% / 91%
<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>	Switched

**Power consumption**

<b>Power consumption note</b>	See white paper Energy Consumption
<b>Link to Energy White Paper</b>	<a href="http://docs.ts.fujitsu.com/dl.aspx?id=0e3c33e1-feaa-459c-a56a-8b1167a85e4d">http://docs.ts.fujitsu.com/dl.aspx?id=0e3c33e1-feaa-459c-a56a-8b1167a85e4d</a>

**Heat dissipation**

<b>Heat dissipation notes</b>	See white paper Energy Consumption
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**Noise emission**

<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))
<b>Standard noise operation mode: CPU 50% load</b>	tbd
<b>Standard noise operation mode: HDD load</b>	tbd
<b>Standard noise operation mode: Idle mode</b>	tbd
<b>Standard noise operation mode: ODD load</b>	tbd
<b>Standard noise operation mode: Office applications 2.0</b>	tbd
<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>	tbd
<b>Blue angel noise operation mode: Idle mode</b>	tbd
<b>Blue angel noise operation mode: ODD load</b>	tbd

**Dimensions / Weight / Environmental**

<b>Dimensions (W x D x H)</b>	175 x 419 x 395 mm 6.89 x 16.5 x 15.56 inch
<b>Operating position</b>	Vertical
<b>Weight</b>	11 kg
<b>Weight (lbs)</b>	24.25 lbs
<b>Weight notes</b>	Actual weight may vary depending on configuration
<b>Operating ambient temperature</b>	10 - 35°C (50 - 95°F)

**Compliance**

<b>Product</b>	ESPRIMO P710
<b>Model</b>	M15W

**Compliance**

Germany	TÜV GS
Europe	CE Nordic Swan in progress
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® Gold (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) 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**

	Keyboard on (Special Fujitsu keyboard required) Thermal management Extended lifetime
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**Compatibility (references)**

	DMI 2.0 PC 2001 WMI 1.5 USB 2.0 SMBIOS
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**Manageability**

Manageability technology	DeskUpdate Driver management PXE 2.1 Boot code Wake up from S5 (off mode) Intrusion switch (optional) Intel® Standard Manageability WoL (Wake on LAN)
Manageability software	DeskView Client DeskView Instant BIOS Management DeskView Integration for Symantec Management Platform
DeskView components	Inventory Management BIOS Management Driver Management Security Management Alarm Management
Manageability link	<a href="http://ts.fujitsu.com/manageability">http://ts.fujitsu.com/manageability</a>

**Security**

System protection	Kensington Lock support Eye for padlock Optional: Integrated cabinet lock
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<b>Security</b>	
<b>Audit proof protection</b>	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
<b>Access protection</b>	User and supervisor BIOS password Hard disk password Optional: Access protection via external SmartCard reader Optional: Access protection via internal SmartCard reader
<b>Serviceability</b>	
	EasyFix EasyChange for HDD EasyChange for optical drives
<b>Packaging information</b>	
<b>Packaging dimension (mm)</b>	516 x 278 x 562 mm
<b>Packaging dimension (inch)</b>	20.31 x 10.94 x 22.13 inch
<b>Max. quantity / pallet</b>	28
<b>Material - Weight (g) Carton</b>	1405 g
<b>Material - Weight (lbs) Carton</b>	3.1 lbs
<b>Material - Weight (g) EPS / PS</b>	160 g
<b>Material - Weight (lbs) EPS / PS</b>	0.35 lbs
<b>Material - Weight (g) PE</b>	60 g
<b>Material - Weight (lbs) PE</b>	0.13 lbs
<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://www.fujitsu.com/fts/services/support/index.html">http://www.fujitsu.com/fts/services/support/index.html</a>

## More information

### Fujitsu platform solutions

In addition to Fujitsu ESPRIMO P710 E90+, 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 P710 E90+, 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 resolve issues of environmental energy efficiency through IT. Please find further information at <http://www.fujitsu.com/global/about/environment/>



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2012-06-04 CE-EN

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