

Windows®. Life without Walls™.
Fujitsu recommends Windows 7.

DATASHEET

FUJITSU ESPRIMO P9900 0-WATT DESKTOP PC

THE INNOVATIVE 0-WATT PC

ESPRIMO P9900 0-WATT

As an 0-Watt PC, the ESPRIMO P9900, equipped with innovative technology from Fujitsu and Intel®, is a power-saving miracle and the ideal companion for all highly demanding business applications - all in one. Made of specially selected material and, in addition to the 0 Watt function, equipped with further power-save options, such as a switched monitor outlet and power save management, this ESPRIMO microtower PC already meets today the legal requirements of tomorrow. Furthermore, this microtower, equipped with a highly efficient power supply of up to 89%, meets the criteria of ENERGY STAR® 5.0. Top performance and energy savings for all requirements.

0-WATT PC

Cost savings by completely reducing off-mode losses

- Patented function for 0-Watt power consumption in off and hibernating mode with simultaneous management in a time slot that can be optionally set

ENVIRONMENTALLY CONSCIOUS PRODUCT WITH ENERGY STAR 5.0 CERTIFICATION

Your contribution to environmental protection for the continued existence of our planet

- Halogen-free mainboard, sophisticated product concept for the entire lifecycle

HIGHEST ENERGY EFFICIENCY COUPLED WITH INTELLIGENT PERFORMANCE

The best-in-class regarding power consumption combined with new levels of performance

- State-of-the-art Intel® Core™ processors with Turbo Boost and hyperthreading technology and a power supply with up to 87% efficiency

SYSTEM MANAGEMENT

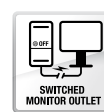
Easy system administration for complex IT infrastructure

- Intel® vPro™ technology

SILENT OPERATION

Pleasant working environment due to an extremely quiet system

- Innovative hardware design, optimized fan concept



COMPONENTS

PROCESSOR	Intel® Core™ i7 processor i7-860 (4 Cores / 8 Threads, 2.80 GHz, 8 MB) Intel® Core™ i5 processor i5-750 (4 Cores / 4 Threads, 2.66 GHz, 8 MB) Intel® Core™ i5 processor i5-670 (2 Cores / 4 Threads, 3.46 GHz, 4 MB, Intel® HD Graphics) Intel® Core™ i5 processor i5-660 (2 Cores / 4 Threads, 3.33 GHz, 4 MB, Intel® HD Graphics) Intel® Core™ i5 processor i5-650 (2 Cores / 4 Threads, 3.20 GHz, 4 MB, Intel® HD Graphics) Intel® Core™ i3 processor i3-540 (2 Cores / 4 Threads, 3.06 GHz, 4 MB, Intel® HD Graphics) Intel® Core™ i3 processor i3-530 (2 Cores / 4 Threads, 2.93 GHz, 4 MB, Intel® HD Graphics) Intel® Pentium® processor G6950 (2 Cores / 2 Threads, 2.80 GHz, 3 MB, Intel® HD Graphics)
OPERATING SYSTEM	
Operating system optional preinstalled	Microsoft® Windows® 7 Home Premium Microsoft® Windows® 7 Professional TwinLoad Microsoft® Windows® XP Professional (DVD)
Operating system compatible	Linux Microsoft® Windows® XP Professional x64 Edition Microsoft® Windows® Vista®
Operating system notes	All Windows® 7 versions are Office 2007 ready. Please be aware that your Microsoft support for Windows XP is limited due to the fact that the end of the Extended Support Phase has been reached. Additionally, please be aware that Fujitsu Technology Solutions may only provide limited support for Windows XP due to the limited Windows XP support offered by Microsoft because of the discontinued Windows XP certification on system level.
MEMORY MODULES	2 GB (1 module(s) 2 GB) DDR3, unbuffered, non-ECC, 1333 MHz, PC3-10600, DIMM 4 GB (1 module(s) 4 GB) DDR3, unbuffered, non-ECC, 1333 MHz, PC3-10600, DIMM
HARD DISK DRIVES (INTERNAL)	SSD SATA, 128 GB, 2.5-inch SATA II, 7200 rpm, 1000 GB, 3.5-inch, S.M.A.R.T. SATA II, 7200 rpm, 500 GB, 3.5-inch, S.M.A.R.T. business critical SATA II, 7200 rpm, 500 GB, 3.5-inch, S.M.A.R.T. SATA II, 7200 rpm, 320 GB, 3.5-inch, S.M.A.R.T. SATA II, 7200 rpm, 250 GB, 3.5-inch, S.M.A.R.T. SATA II, 7200 rpm, 160 GB, 2.5-inch, S.M.A.R.T.
Hard disk notes	Supporting NCQ and 3 GBit
GRAPHICS ADD ON CARDS (OPTIONAL)	DP to DVI-D (single link) Adapter Cable NVIDIA® GeForce® 9300GE, 256 MB NVIDIA® GeForce® 9300GE, 512 MB NVIDIA® GeForce® 9300GE display port low profile, 512 MB NVIDIA® GeForce® 9500GS, 512 MB NVIDIA® Quadro® NVS 290, 256 MB
DRIVES (OPTIONAL)	Blu-ray Disc™ Triple Writer DVD-ROM DVD Super Multi MultiCard Reader 20in1, 3.5-Inch
INTERFACE ADD ON CARDS/COMPONENTS (OPTIONAL)	WLAN III, 802.11g/Draft-n (Windows only) Parallel Interface Modem adapter kit (EU) Modem 56k incl. RJ11 modem cable Gigabit Ethernet PCIe x1 FireWire PCI-Card IEEE1394 eSATA Interface Dual serial card, PCI, EX-43092

Base unit	ESPRIMO P9900 0-Watt
MAINBOARD	
Mainboard type	D2912
Formfactor	µBTX
Chipset	Intel® Q57
Processor socket	LGA 1156
Processor quantity maximum	1
Memory slots	4 DIMM (DDR3)
Supported capacity RAM (max.)	16 GB
Memory frequency	1333 MHz
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 Intel® 82578 DM
BIOS version	Phoenix 6.0
BIOS features	BIOS Flash EPROM update by software Recovery BIOS
Audio codec	Realtek ALC663
Audio features	Internal speaker supports audio playback, High Definition audio, 5.1 surround sound
I/O CONTROLLER ON BOARD	
Serial ATA total	4
thereof eSATA	2 (optional)
Controller functions	Serial ATA II NCQ and 3 GBit AHCI Raid 1/0
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	14
USB front	2
USB rear	8
USB internal	4
VGA	1 (via DVI to VGA adaptor; included for onboard graphics only)
DisplayPort	1 (for onboard graphics only)
DVI	1 (for onboard graphics only)
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	
Input devices (optional)	Optical USB tilt wheel mouse Optical USB/PS2 tilt wheel mouse
DRIVE BAYS	
Drive bays total	6
3.5-inch internal bays	2
3.5-inch external bays	2
5.25-inch external bays	2
SLOTS	
PCI-Express 2.0 x16	1 x (230 mm) FlexySlot

SLOTS

PCI-Express 2.0 x4 (mech. x16)	1 x (230 mm) full height
PCI (32-bit / 33 MHz)	2 x (170 / 315 mm) full height

GRAPHICS ON BOARD

Graphics brand name	Intel® HD Graphics (integrated in dual-core processors only)
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 / -
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	DirectX 10 HDCP support OpenGL® 2.1
Graphics notes	Graphics controller integrated in dual-core processors. For quad-core processors graphics card is mandatory. 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) : 86% / 89% / 87% 0-Watt mode automatically
Rated voltage range	100 - 240 V
Rated frequency range	50 - 60 Hz
Operating voltage range	90 - 264 V
Operating line frequency range	47 - 63 Hz
Max. output of single power supply	250 W
Power factor correction/active power	active
Monitor outlet	Switched

POWER CONSUMPTION

Power consumption note	See white paper Energy Consumption 0-Watt mode automatically
Link to Energy White Paper	http://docs.ts.fujitsu.com/dl.aspx?id=1c12084a-5b8b-4839-84b5-2c269e4aa4e0

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
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NOISE FOR STANDARD CONFIGURATION (HDD, ODD, FDD)

Related Processors for noise	Intel® Core™ i5-670 ; Intel® Core™ i7-860 including NVIDIA® Geforce® 9500GS
Noise Operation mode 1: ODD load (Blue angel requirement)	4.4 B / 29 dB(A) ; 4.4 B / 29 dB(A)
Noise Operation mode 2: HDD load (Blue angel requirement)	3.7 B / 21 dB(A) ; 3.6 B / 21 dB(A)
Noise Operation mode 3: CPU 90% load (Blue angel requirement)	3.9 B / 24 dB(A) ; 3.9 B / 24 dB(A)
Noise Operation mode 4: High load	3.9 B / 23 dB(A) ; 3.9 B / 24 dB(A)
Noise Operation mode 5: Office applications	3.8 B / 22 dB(A) ; 3.6 B / 20 dB(A)
Idle mode (Blue Angel requirement)	3.7 B / 20 dB(A) ; 3.6 B / 20 dB(A)
Noise notes / description	A weighted sound power level Lwad (in B) / workplace related A-weighted sound pressure level LpAm (in dB(A)), Bystander position

DIMENSIONS / WEIGHT / ENVIRONMENTAL

Dimensions (W x D x H)	203 x 390 x 392 mm
Operating position	Vertical
Weight	approx. 12 kg
Weight notes	Actual weight may vary depending on configuration
Operating ambient temperature	10 - 35°C

COMPLIANCE

Product	ESPRIMO P9900
Model	MI3W-D2912
Germany	Blauer Engel / Blue Angel in progress GS optional
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 in progress EPEAT® in progress
Compliance link	https://sp.ts.fujitsu.com/sites/certificates/default.aspx

ADDITIONAL SOFTWARE

Additional software (preinstalled)	Nero Essentials S (burning 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)

MISCELLANEOUS

	Thermal management
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COMPATIBILITY (REFERENCES)

	DMI 2.0 PC 2001 WMI 1.5 USB 2.0
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MANAGEABILITY

Manageability features	ASF 2.0 (Alert Standard Format) DeskUpdate Driver management PXE 2.1 Boot code BootP Boot Code including Bootmanage Administrator Software (tested) Wake up from S5 (off mode) Intrusion switch (optional) iAMT 6.0
Manageability type	DeskView 10.x client management including:

MANAGEABILITY

DeskView features	<ul style="list-style-type: none"> On/Offline remote client management Detailed system inventory management and reports BIOS Management Remote power management System notifications Advanced alerts (ASF implementation) Security Remote Control DeskView Helpdesk Integration WoL (Wake on LAN)
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SECURITY

Physical security	<ul style="list-style-type: none"> Kensington Lock support Eye for padlock Optional: Integrated cabinet lock
System security	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> User and supervisor BIOS password SystemLock 2 BIOS SmartCard Security Hard disk password Optional: Access protection via external SmartCard reader Optional: Access protection via internal SmartCard reader

SERVICEABILITY

- FlexySlot
- EasyFix
- EasyChange for HDD
- EasyChange for optical drives

PACKAGING INFORMATION

Packaging dimension	500x290x540 mm
Max. quantity / pallet	24
Material - Weight (g) Carton	1270 g
Material - Weight (g) EPS / PS	230 g
Material - Weight (g) PE	appr. 60 g
Packaging notes	printed user documentation is bleached in chlorine free process

WARRANTY

Standard Warranty	3 years
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
Service Weblink	http://ts.fujitsu.com/Supportservice

FUJITSU PLATFORM SOLUTIONS

In addition to Fujitsu ESPRIMO P9900 0-Watt, 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 P9900 0-Watt, 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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