

DATA SHEET

ESPRIMO P7935 0-Watt

The world's first 0-Watt PC

Issue: October 2009

ESPRIMO P7935 0-Watt

As the world's first 0-Watt PC, the ESPRIMO P7935, 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 up to 89% efficient power supply and selected components, already meets today the strict criteria defined by ENERGY STAR® 5.0. Top performance and power save for all demands.



0-Watt PC

Cost savings by completely reducing off-mode losses

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

Environmentally compatible product

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

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

ENERGY STAR® 5.0

Low power consumption and costs with no loss in performance.

- Power supply with up to 89% efficiency and a range of special components

System management

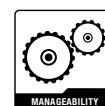
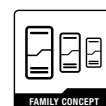
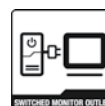
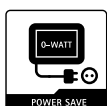
Simple system administration for complex IT infrastructures

- Intel® vPro™ technology

Quiet

Pleasant working environment due to an extremely quiet system

- Innovative hardware design, optimized fan concept



Components

Processor

Intel® Core™2 Quad processor Q9650 (3.0 GHz, 12 MB, 1333 MHz)
Intel® Core™2 Quad processor Q9550 (2.83 GHz, 12 MB, 1333 MHz)
Intel® Core™2 Quad processor Q9505 (2.83 GHz, 6 MB, 1333 MHz)
Intel® Core™2 Quad processor Q9400 (2.66 GHz, 6 MB, 1333 MHz)
Intel® Core™2 Quad processor Q8300 (2.5 GHz, 4 MB, 1333 MHz)
Intel® Core™2 Duo processor E8600 (3.33 GHz, 6 MB, 1333 MHz)
Intel® Core™2 Duo processor E8500 (3.16 GHz, 6 MB, 1333 MHz)
Intel® Core™2 Duo processor E8400 (3.0 GHz, 6 MB, 1333 MHz)
Intel® Core™2 Duo processor E7600 (3.06 GHz, 3 MB, 1066 MHz)
Intel® Core™2 Duo processor E7500 (2.93 GHz, 3 MB, 1066 MHz)
Intel® Core™2 Duo processor E7400 (2.8 GHz, 3 MB, 1066 MHz)
Intel® Pentium® processor E6300 (2.8 GHz, 2 MB, 1066 MHz)
Intel® Pentium® processor E5400 (2.7 GHz, 2 MB, 800 MHz)
Intel® Pentium® processor E5300 (2.6 GHz, 2 MB, 800 MHz)
Intel® Pentium® processor E5200 (2.5 GHz, 2 MB, 800 MHz)
Intel® Celeron® processor E3200 (2.4 GHz, 1 MB, 800 MHz)
Intel® Celeron® processor E1500 (2.2 GHz, 512 KB, 800 MHz)

Memory modules

4 GB (1 module(s) with 4 GB) DDR2, 800 MHz, PC2-6400
2 GB (2 module(s) with 1 GB) DDR2, 800 MHz, PC2-6400
2 GB (1 module(s) with 2 GB) DDR2, 800 MHz, PC2-6400
1 GB (1 module(s) with 1 GB) DDR2, 800 MHz, PC2-6400

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, 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)

ATI Radeon® HD 3450 256 MB
Dual DVI / Single Display port adapter
DVI Extension Adapter
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

Modular bay options

1.44 MB Floppy, standard
Blu-ray Disc Triple Writer
DVD-ROM
DVD Super Multi
MultiCard Reader 20in1, 3,5-Inch

Interface add on cards/components (optional)

Parallel Interface
FireWire PCI-Card IEEE1394
eSATA Interface
Dual serial card, PCI, EX-43092

Base unit

ESPRIMO P7935 0-Watt

Mainboard

Mainboard type D2812-A2x
Formfactor µBTX

Mainboard

Chipset	Intel® Q45
Processor socket	LGA 775
Processor quantity maximum	1
System bus (FSB / HT / QPI)	up to 1333 MHz
Memory slots	4 DIMM (DDR2)
Supported capacity RAM (max.)	16 GB
Memory frequency	800 MHz
Memory notes	Dual channel support. For dual channel performance, identical memory modules in each channel are necessary (minimum 2 modules).
LAN	10/100/1000 MBit/s Intel® 82567LM
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 / microphone	1
Audio: line-in	1
Audio: line-out	1
Front audio: headphone	1
Front audio: microphone	1
USB 2.0 total	12
USB front	2
USB rear	6
USB internal	4, thereof 2 optional rear
VGA	1
DVI	optional
Serial (RS-232)	1 (9pi, 16 byte FIFO, 16550 compatible)
Mouse / Keyboard (PS/2)	2
Ethernet (RJ-45)	1
Parallel	optional (25pin with EPP and ECP)

Input device / components

Optical USB tilt wheel mouse
Optional: 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 x16	1 x (230 mm) FlexySlot
PCI-Express x4 (mech. x8)	1 x (230 mm) full height
PCI (32-bit / 33 MHz)	2 x (170 / 315 mm) full height

Graphic on board

Graphics brand name	Intel® GMA 4500
Shared video memory	up to 256 MB

Graphic on board

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 1680 x 1050 pixel 1920 x 1200 pixel
TFT resolution (DVI)	1360 x 768 pixel 1440 x 900 pixel 1680 x 1050 pixel 1920 x 1200 pixel
Graphic notes	Tested resolutions, depending on display type additional resolutions and frequencies possible Shared memory depending on main memory size Resolution (color depth up to 32 Bit/pixel) For TFT we recommend to use 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 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=7aab2321-f3a1-4844-a781-8f10a619e179

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)	4.5 B / 30 dB(A)
Noise Operation mode 2: HDD load (Blue angel requirement)	3.5 B / 19 dB(A)
Noise Operation mode 3: CPU 90% load (Blue angel requirement)	3.5 B / 19 dB(A)
Noise Operation mode 4: High load	3.5 B / 19 dB(A)
Noise Operation mode 5: Office applications	3.5 B / 19 dB(A)
Idle mode (Blue Angel requirement)	3.5 B / 19 dB(A)
Noise notes / description	A weighted sound power level L _{wad} (in B) / workplace related A-weighted sound pressure level L _{pAm} (in dB(A)), Bystander position

Dimensions / Weight / Environmental

Dimension (W x D x H)	203 x 390 x 392 mm
Operating position	Vertical
Weight	approx. 12 kg
Weight notes	Weight may vary depending on actual configuration
Operating ambient temperature	15 - 35°C

Compliance

Product	ESPRIMO P7935
Model	MI3W-D2812
Germany	Blauer Engel / Blue Angel in progress GS optional
Europe	CE Nordic Swan
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
Compliance link	https://sp.ts.fujitsu.com/sites/certificates/default.aspx

Operating system

Operating system optional preinstalled	Microsoft® Windows Vista® Home Basic Microsoft® Windows Vista® Home Premium Microsoft® Windows Vista® Business 32bit Microsoft® Windows Vista® Business 64bit TwinLoad Microsoft® Windows® XP Professional (DVD)
Operating system compatible	Linux

Additional Software

Additional software (preinstalled)	Nero Essentials (burning software)
Additional software (optional)	Recovery DVD (Windows® XP / Windows Vista®) Drivers & Utilities DVD (DUDVD) Windows Vista® Drivers & Utilities DVD (DUDVD) Windows® XP

Miscellaneous

	Keyboard on (Fujitsu keyboard required) 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 DeskView Migrate (optional) DeskView Control (optional) PXE 2.1 Boot code BootP Boot Code including Bootmanage Administrator Software (tested) Wake up from S5 (off mode) Intrusion switch (optional) iAMT 5.0
Manageability type	DeskView 10.x client management including:
DeskView features	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)
Manageability link	http://ts.fujitsu.com/manageability http://www.altiris.com/fujitsu

Security

Physical security	Kensington Lock support Eye for padlock Optional: Integrated cabinet lock
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Security

System security	Boot sector virus protection Write protect option for the Flash EPROM Embedded security (TPM 1.2) - Infineon Control of all USB interfaces External USB ports can be disabled separately Boot protection for floppy disk / CD drive and write protection for floppy disk drive Control of external interfaces
User security	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

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

Information about environmental care, policies, programs and our Environmental Guideline FSC 03230:

<http://ts.fujitsu.com/aboutus>

Take back and Recycling information:

<http://ts.fujitsu.com/recycling>

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