

# Data Sheet

## FUJITSU Desktop ESPRIMO P756/E90+

### Excellent Performance, Expandability and Efficiency

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The FUJITSU ESPRIMO P756/E90+ Desktop provides high expandability and solid performance for your challenging business applications. The use of a common software load within the product series ensures perfect infrastructure compatibility and simplifies rollouts. Its 90%-efficient power supply will ensure environmental compliance for years to come. With its innovative Low Power Active Mode feature you are ready for instant communication in the modern office. Intel® Standard Manageability keeps administration costs low. Finally, EraseDisk ensures secure system retirement.

#### Quiet

Pleasant working environment due to an extremely quiet system

- Innovative hardware design, optimized cooling concept ensures silent operations

#### Always Available Office PC - stay connected and save power

Be ready for instant communication and a significantly reduced energy bill

- Innovative Low Power Active Mode and highly-efficient integrated power-supply

#### Energy efficiency and high performance

Low power consumption combined with high levels of performance

- 6th generation Intel® Core™ processor family, a switched monitor outlet and a power supply with 90% efficiency

#### Green technology

Another example of the Fujitsu commitment to environmental protection and sustainability

- Halogen-free printed circuit board of mainboard, sophisticated product concept for the entire lifecycle

#### 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™ i7-6700 processor (4 Cores / 8 Threads, 3.40 GHz, up to 4.0 GHz, 8 MB, Intel® HD Graphics 530) *
	Intel® Core™ i5-6600 processor (4 Cores / 4 Threads, 3.30 GHz, up to 3.9 GHz, 6 MB, Intel® HD Graphics 530) *
	Intel® Core™ i5-6500 processor (4 Cores / 4 Threads, 3.20 GHz, up to 3.6 GHz, 6 MB, Intel® HD Graphics 530) *
	Intel® Core™ i5-6400 processor (4 Cores / 4 Threads, 2.70 GHz, up to 3.3 GHz, 6 MB, Intel® HD Graphics 530) *
	Intel® Core™ i3-6100 processor (2 Cores / 4 Threads, 3.70 GHz, 3 MB, Intel® HD Graphics 530)
	Intel® Pentium® processor G4500 (2 Cores / 2 Threads, 3.50 GHz, 3 MB, Intel® HD Graphics 530)
	Intel® Pentium® processor G4400 (2 Cores / 2 Threads, 3.30 GHz, 3 MB, Intel® HD Graphics 510)
	Intel® Celeron® processor G3900 (2 Cores / 2 Threads, 2.80 GHz, 2 MB, Intel® HD Graphics 510)
*with Intel® Turbo Boost Technology (clock speed and performance will vary depending on workload and other variables)	
<b>Operating systems</b>	
<b>Operating system</b>	Windows 10 Pro Windows 10 Home Windows 8.1 Pro Windows 8.1 Windows 7 Professional 64-bit Windows 7 Professional 32-bit
<b>Operating system compatible</b>	Windows 10 Pro (license + recovery media only) openSUSE Linux
<b>Microsoft OS support information</b>	This system receives full support from Microsoft with Windows 10/Windows 10 Pro only. For any other Microsoft OS installed, this device has limited support from Microsoft. For more information, please see Microsoft's Support Lifecycle FAQ.
<b>Memory modules</b>	
4 GB (1 module(s) 4 GB) DDR4, unbuffered, non-ECC, 2,133 MHz, UDIMM	
8 GB (1 module(s) 8 GB) DDR4, unbuffered, non-ECC, 2,133 MHz, UDIMM	
16 GB (1 module(s) 16 GB) DDR4, unbuffered, non-ECC, 2,133 MHz, UDIMM	
<b>Hard disk drives (internal)</b>	
SSD PCIe 512 GB M.2 Highend	
SSD PCIe 256 GB M.2 Highend	
SSD PCIe 128 GB M.2 Highend	
SSD SATA III 512GB M.2	
SSD SATA III 256GB M.2	
SSD SATA III 128 GB M.2	
SSD SATA III, 512 GB, 2.5-inch	
SSD SATA III, 256 GB, 2.5-inch	
SSD SATA III, 512 GB, 2.5-inch, SED	
SSD SATA III, 256 GB, 2.5-inch, SED	
SSD SATA III, 128 GB, 2.5-inch, SED	
SSD SATA III, 128 GB, 2.5-inch	
SSHD SATA III, 7,200 rpm, 1,000 GB, 3.5-inch	
SSHD SATA III, 5,400 rpm, 500 GB, 2.5-inch	
HDD SATA III, 7,200 rpm, 1,000 GB, 3.5-inch, business critical	
HDD SATA III, 7,200 rpm, 500 GB, 3.5-inch, business critical	
HDD SATA III, 7,200 rpm, 2,000 GB, 3.5-inch	
HDD SATA III, 7,200 rpm, 1,000 GB, 3.5-inch	
HDD SATA III, 7,200 rpm, 500 GB, 3.5-inch	
HDD SATA II, 5,400 rpm, 500 GB, 2.5-inch*	
<b>Hard disk notes</b>	Up to 20 GB of HDD space is reserved for system recovery SSHD (Solid State Hard Disk, Hybrid drive) SSD (Solid State Disk) SED (Self-Encrypting Drive)

<b>Graphics</b>	VGA Extension Card
	NVIDIA® NVS™ 315, 1 GB
	NVIDIA® GeForce® GTX 745 2 GB FH, 2 GB
	NVIDIA® GeForce® 605 DisplayPort 1GB FH, 1 GB
	LFH59/ 2x DVI-I adapter cable
	LFH59/ 2x DP adapter cable
	DVI-I to VGA Adapter
	DP to DVI-D (single link) Adapter Cable
	AMD® Radeon R9 255 FH, 2 GB
<b>Drives (optional)</b>	BD Triple Writer SATA ultra slim (tray)
	DVD-ROM
	DVD Super Multi
	DVD Super Multi ultra slim (tray)
	MultiCard Reader 24in1 USB 2.0 3.5"
<b>Interface add on cards/components (optional)</b>	
	WLAN 802.11ac (2x2) PCIe x1 FH and BT 4.1 (dedicated regions only, up to BT 4.2 depending on OS version)
	WLAN 802.11ac (2x2) PCIe x1 FH (dedicated regions only)
	Parallel Interface
	Gigabit Ethernet PCIe x1, DS
	eSATA Interface
	Dual serial card PCIe x1

## Base unit

<b>Base unit</b>	ESPRIMO P756/E90+
<b>Mainboard</b>	
<b>Mainboard type</b>	D3401
<b>Formfactor</b>	µATX
<b>Chipset</b>	Intel® Q150
<b>Processor socket</b>	LGA 1151
<b>Processor quantity maximum</b>	1
<b>Supported capacity RAM (max.)</b>	64 GB
<b>Memory slots</b>	4 DIMM (DDR4)
<b>Memory frequency</b>	2,133 MHz
<b>Memory notes</b>	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.
<b>LAN</b>	10/100/1,000 MBit/s Intel® I219V
<b>BIOS version</b>	AMI Aptio V
<b>BIOS features</b>	BIOS Flash EPROM update by software Recovery BIOS Unified Extensible Firmware Interface (UEFI) CSM (Compatibility Support Module)
<b>Audio type</b>	On board
<b>Audio codec</b>	Realtek ALC671
<b>Audio features</b>	Internal speaker supports audio playback (optional), High Definition audio, 5.1 surround sound
<b>I/O controller on board</b>	
<b>Serial ATA total</b>	5
<b>thereof SATA III</b>	5
<b>thereof eSATA</b>	2

**I/O controller on board**

Controller functions	Serial ATA III (6 Gbit) NCQ AHCI
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**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	6
USB 3.0 total	6
USB front	2x USB 2.0; 2x USB 3.0
USB rear	2x USB 2.0; 4x USB 3.0
USB internal	2x USB 2.0
VGA	optional: via adapter card
DisplayPort	2
DVI	1 (DVI-D)
Serial (RS-232)	1 ; optional: 2nd serial port (9pin, 16 byte FIFO, 16550 compatible)
Mouse / Keyboard (PS/2)	2
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**

Input devices (optional)	Keyboard Mouse KBPC PX ECO Mouse M440 ECO
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**Drive bays**

Drive bays total	7
3.5-inch internal bays	2
3.5-inch external bays	2
5.25-inch external bays	2
M.2-2280	1 x on mainboard (for PCIe or SATA SSD modules)

**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	2 x (170 mm / 6.7 inch) Full height

**Graphics on board**

Graphics brand name	Intel® HD Graphics 510, Intel® HD Graphics 530
Shared video memory	up to 1,782 MB
TFT resolution (VGA)	1,024 x 768 pixel 1,280 x 1,024 pixel 1,360 x 768 pixel 1,440 x 900 pixel 1,600 x 900 pixel 1,600 x 1,200 pixel 1,680 x 1,050 pixel 1,920 x 1,080 pixel

**Graphics on board**

<b>TFT resolution (DVI)</b>	1,280 x 1,024 pixel 1,360 x 768 pixel 1,440 x 900 pixel 1,600 x 900 pixel 1,680 x 1,050 pixel 1,920 x 1,080 pixel 1,920 x 1,200 pixel
<b>TFT resolution (DisplayPort)</b>	1,280 x 1,024 pixel 1,360 x 768 pixel 1,440 x 900 pixel 1,600 x 900 pixel 1,680 x 1,050 pixel 1,920 x 1,080 pixel 1,920 x 1,200 pixel 2,560 x 1,440 pixel 2,560 x 1,600 pixel 3,840 x 2,160 pixel 4,096 x 2,304 pixel
<b>Graphics features</b>	Support for up to three independent displays DirectX® 12 HDCP support OpenCL™ 2.0 (requires Intel® Core™ i3, i5 or i7 processors) OpenGL® 4.4 One DisplayPort connector can be converted to DVI-D or HDMI with an optional external adapter For multi monitoring mode, graphics card and integrated graphics run in parallel DisplayPort interface supports Ver. 1.2 incl. Multi-Stream DVI-D interface supports audio output for HDMI monitors
<b>Graphics notes</b>	up to 1 GB dedicated video memory (main memory owned and locked for graphics use) 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**

<b>Power efficiency note</b>	power supply efficiency (at 230V; 10% / 20% / 50% / 100% load) : 84% / 90% / 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=32bd6d14-8f85-4d8e-8b08-ac2897871048">http://docs.ts.fujitsu.com/dl.aspx?id=32bd6d14-8f85-4d8e-8b08-ac2897871048</a>

**Heat dissipation**

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

<b>Related Processors for noise</b>	Intel® Core™ i7 6700
<b>Standard noise emission</b>	2x4 GB, HDD, ODD, Windows According to ISO 7779:2010, ECMA-74
<b>Standard noise notes / description</b>	A-weighted sound power level Lw <sub>ad</sub> (in B) / Workplace related A-weighted sound pressure level Lp <sub>Am</sub> (in dB(A))
<b>Standard noise operation mode: CPU 50% load</b>	3.6 B / 23 dB(A) Bystander; 27 dB(A) Operator position
<b>Standard noise operation mode: HDD load</b>	3.4 B / 21 dB(A) Bystander; 24 dB(A) Operator position
<b>Standard noise operation mode: Idle mode</b>	3.4 B / 20 dB(A) Bystander; 24 dB(A) Operator position

**Noise emission**

**Standard noise operation mode: ODD load** 4.5 B / 31 dB(A) Bystander; 34 dB(A) Operator position

**Standard noise operation mode: Office applications 2.0** 3.4 B / 20 dB(A) Bystander; 24 dB(A) Operator position

**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 L<sub>wad</sub> (in B); 1B = 10dB

**Blue angel noise operation mode: HDD load** 3.6 B = 36 dB (A)

**Blue angel noise operation mode: Idle mode** 3.5 B = 35 dB (A)

**Blue angel noise operation mode: ODD load** 4.5 B = 45 dB (A)

**Dimensions / Weight / Environmental**

**Dimensions (W x D x H)** 175 x 419 x 395 mm  
6.89 x 16.5 x 15.56 inch

**Operating position** Vertical

**Weight** 11 kg

**Weight (lbs)** 24.25 lbs

**Weight notes** Actual weight may vary depending on configuration

**Operating ambient temperature** 10 - 35 °C (50 - 95 °F)

**Operating relative humidity** 5 - 85 % (relative humidity)

**Compliance**

**Product** ESPRIMO P756/E90+

**Model** M15W

**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® 6.1 (dedicated regions)  
EPEAT® Gold (dedicated regions)

**China** CCC (planned)  
China RoHS

**Compliance link** <http://globalsp.ts.fujitsu.com/sites/certificates>

**Additional Software**

**Additional software (preinstalled)** Adobe® Reader® (pdf reader)  
McAfee Multi Access Security (anti-virus and internet security software; 60 days trial version)  
Win7: Fujitsu Recovery (hard disk based recovery)  
Win8: Microsoft Push Button Recovery (hard disk based recovery)  
Microsoft Office (buy license to activate the pre-installed Microsoft Office)

**Additional software (optional)** Recovery DVD for Windows®  
Drivers & Utilities DVD (DUDVD)  
CyberLink PowerDVD BD (playback software for Blu-ray Disc™)  
CyberLink PowerDVD DVD (playback software for DVD)  
Nero Essentials XL

**Manageability**

**Manageability technology** DeskUpdate Driver management  
PXE 2.1 Boot code  
Wake up from S5 (off mode)  
Intrusion switch (optional)  
WoL (Wake on LAN)  
Intel® Standard Manageability (depending on processor)

**Manageability**

<b>Manageability software</b>	DeskView Client DeskView Instant BIOS Management
<b>DeskView components</b>	Inventory Management BIOS Management Driver Management Security Management Alarm Management
<b>Supported standards</b>	DMI (Desktop Management Interface) SMBIOS (System Management BIOS) PXE (Preboot Execution Environment) WMI (Windows Management Instrumentation) WBEM (Web Based Enterprise Management) CIM (Common Information Model)

**Security**

<b>Physical Security</b>	Kensington Lock support Eye for padlock Integrated cabinet lock (optional)
<b>System and BIOS Security</b>	Embedded security (TPM 2.0) EraseDisk (optional) Boot sector virus protection Write protect option for the Flash EPROM Control of all USB interfaces External USB ports can be disabled separately Control of external interfaces
<b>User Security</b>	User and supervisor BIOS password Hard disk password Access protection via external SmartCard reader (optional) Access protection via internal SmartCard reader (optional) Workplace Protect (secure authentication solution)
<b>Workplace Embedded Tools</b>	Auto BIOS Update via Fujitsu Server Auto BIOS Update via customer server (optional) Easy PC Protection (optional)

**Miscellaneous**

	Keyboard on (Special Fujitsu keyboard required) Thermal management Low Power Active Mode
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**Serviceability**

	EasyFix EasyChange for HDD EasyChange for optical drives
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**Packaging information**

<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>	24
<b>Material - Weight (g) Carton</b>	1280 g
<b>Material - Weight (lbs) Carton</b>	2.82 lbs
<b>Material - Weight (g) EPS / PS</b>	190 g
<b>Material - Weight (lbs) EPS / PS</b>	0.42 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

**Warranty**

<b>Warranty period</b>	1 year (for countries in EMEA)
<b>Warranty type</b>	Bring-In / Onsite Service (for countries within region EMEA, for all other countries depending on local regulations)
<b>Warranty Terms &amp; Conditions</b>	<a href="http://support.ts.fujitsu.com/warranty">http://support.ts.fujitsu.com/warranty</a>

**Warranty****Product Support Services - the perfect extension**

<b>Recommended Service</b>	9x5, Onsite Response Time: Next Business Day
<b>Spare Parts availability</b>	5 years after end of product life
<b>Service Weblink</b>	<a href="http://www.fujitsu.com/fts/services/support">http://www.fujitsu.com/fts/services/support</a>

## Recommended Accessories

**Display B24-8 TE Pro**

The FUJITSU Display B24-8 TE Pro is made for intensive office work. With visual and mechanical ergonomics this marble-grey display enables fatigue-free working for hours in front of the screen. The large 60.5 cm (23.8-inch) screen allows you to keep always track of all open applications. This high-quality display works unfailingly around the clock. Easy connectivity, manageability and usability help you increase your productivity.

Order Code:  
S26361-K1577-V140

**Mouse M440 ECO**

Fujitsu Mouse M440 ECO is made from 100% bio material and has a completely PVC free cable. The elegant M440 ECO works on nearly every surface and follows all your hand movements smoothly and precisely. It features two main buttons and as well as a scroll wheel providing comfortable computing to both right and left-handed users.

Order Code:  
S26381-K450-L200

**SOUNDSYSTEM DS E2000 Air**

The new more powerful SOUNDSYSTEM DS E2000 Air gives you impressive, well-balanced sound throughout the frequency band. It is an unbeatable USB speaker set with a surprisingly small form factor. The robust satellite speakers are decorated with a deluxe piano finish and the base is adorned with warm ambient lighting.

Order Code:  
S26391-F7128-L600

**UC&C USB Headset Stereo H650e**

The UC&C USB Headset Stereo H650e is the ultimate in style and functionality. Long, uncomfortable work calls are a thing of the past thanks to the cushioned ear pads and crystal clear sound. Adjustable headband and microphone provides the perfect fit for everyone. Optimized for Microsoft® Lync™ the headset displays a red 'in-call' LED to let your co-workers know when you're available, thus helping to boost office productivity.

Order Code:  
S26391-F7139-L10

**Keyboard KBPC PX ECO**

Fujitsu's KBPC PX ECO keyboard is the perfect contribution to Green IT. The keyboard is made out of 45% renewable raw material and comes with a PVC free USB cable. In addition, the KBPC PX ECO offers first class comfort and ergonomics. It attracts attention with its impressive modern design and useful extras.

S26381-K341-L1\*\* (\*\*: country specific variation)



# More information

## Fujitsu OPTIMIZATION Services

In addition to FUJITSU Desktop ESPRIMO P756/E90+, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

### Fujitsu Portfolio

Build on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offering. This allows customers to leverage from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

### Computing Products

[www.fujitsu.com/global/products/computing/](http://www.fujitsu.com/global/products/computing/)

### Software

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

## More information

Learn more about FUJITSU Desktop ESPRIMO P756/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 contribute to the creation of a sustainable environment for future generations through IT. Please find further information at <http://www.fujitsu.com/global/about/environment>



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