

Fujitsu recommends Windows 11 Pro.

# Data Sheet

## Fujitsu Desktop ESPRIMO P6012

### Flexible and economic desktop PC for standard office applications

The Fujitsu ESPRIMO P6012 Desktop PC provides high-quality computing for your everyday office tasks with 12th Gen Intel® Core™ processor. Security functions such as SmartCard reader (optional), the EraseDisk feature and cable cover help secure your valuable business data as well as hardware components. An easily configurable PC to meet your specific hardware needs as well as customize it to satisfy even more complex project requirements.

#### High performance and best price/performance ratio

Ensures smooth performance for standard office applications

- 12th Generation Intel® Core™ processor family
- Higher memory speed, higher clock frequency, improved integrated graphics

#### Manageability and ease of use

"Plug & work" PC that ensures smooth system administration

- Easy to integrate into existing IT landscapes and reliable DeskView manageability tools

#### Robust Security

Designed to protect data and hardware components against manipulation and theft

- Cable cover with lock option at the back to protect ports, cables and components from theft
- Embedded Trusted Platform Module (TPM) and system-level passwords
- EraseDisk software and SmartCard are available as options

#### Best energy efficiency coupled with performance

Low power consumption combined with highest levels of performance

- A switched monitor outlet (with PLATINUM power supply)

#### Made in Europe with low environmental impact

Reduced environmental impact and reduced energy bills with outstanding quality and stable functions based on European production standard

- The development, production and functionality tests - all under one roof in Europe
- Sum of post-consumer recycled content for plastic per weight is 52% (14% are from ITE derived post-consumer material and 38% are any other post-consumer material)



# Components

	ESPRIMO P6012	ESPRIMO P6012 ESTAR
<b>Processor</b>	Intel® Core™ i7-13700 processor (16 Cores(8+8) / 24 Threads, 2.1 GHz, 30 MB, Intel® UHD Graphics 770) ** Intel® Core™ i7-12700 processor (12 Cores (8+4) / 20 Threads, 2.1 GHz, 25 MB, Intel® UHD Graphics 770) ** Intel® Core™ i5-13500 processor (14 Cores (6+8) / 20 Threads, 2.5 GHz, 24 MB, Intel® UHD Graphics 770) * Intel® Core™ i5-13400 processor (10 Cores (6+4) / 16 Threads, 2.5 GHz, 20 MB, Intel® UHD Graphics 730) * Intel® Core™ i5-12500 processor (6 Cores / 12 Threads, 3.0 GHz, 18 MB, Intel® UHD Graphics 770) * Intel® Core™ i5-12400 processor (6 Cores / 12 Threads, 2.5 GHz, 18 MB, Intel® UHD Graphics 730) * Intel® Core™ i3-13100 processor (4 Cores / 8 Threads, 3.4 GHz, 12 MB, Intel® UHD Graphics 730) * Intel® Core™ i3-12100 processor (4 Cores / 8 Threads, 3.3 GHz, 12 MB, Intel® UHD Graphics 730) * Intel® Pentium® Gold G7400 (2 Cores / 4 Threads, 3.7 GHz, 6 MB, Intel® UHD Graphics 710) Intel® Celeron® processor G6900 (2 Cores / 2 Threads, 3.4 GHz, 4 MB, Intel® UHD Graphics 710)	Intel® Core™ i7-13700 processor (16 Cores(8+8) / 24 Threads, 2.1 GHz, 30 MB, Intel® UHD Graphics 770) ** Intel® Core™ i7-12700 processor (12 Cores (8+4) / 20 Threads, 2.1 GHz, 25 MB, Intel® UHD Graphics 770) ** Intel® Core™ i5-13500 processor (14 Cores (6+8) / 20 Threads, 2.5 GHz, 24 MB, Intel® UHD Graphics 770) * Intel® Core™ i5-13400 processor (10 Cores (6+4) / 16 Threads, 2.5 GHz, 20 MB, Intel® UHD Graphics 730) * Intel® Core™ i5-12500 processor (6 Cores / 12 Threads, 3.0 GHz, 18 MB, Intel® UHD Graphics 770) * Intel® Core™ i5-12400 processor (6 Cores / 12 Threads, 2.5 GHz, 18 MB, Intel® UHD Graphics 730) * Intel® Core™ i3-13100 processor (4 Cores / 8 Threads, 3.4 GHz, 12 MB, Intel® UHD Graphics 730) * Intel® Core™ i3-12100 processor (4 Cores / 8 Threads, 3.3 GHz, 12 MB, Intel® UHD Graphics 730) *
	*with Intel® Turbo Boost Technology 2.0 (clock speed and performance will vary depending on workload and other variables) **with Intel® Turbo Boost Max Technology 3.0 (clock speed and performance will vary depending on workload and other variables)	
<b>Operating systems</b>		
Operating system pre-installed	Windows 11 Pro. Fujitsu recommends Windows 11 Pro for business. Windows 11 Home Windows 10 Pro. Fujitsu recommends Windows 11 Pro for business.	
Operating system compatible	Certified for Red Hat® Enterprise Linux	
Operating system notes	Windows 11 requires for first device setup: - Internet connectivity - Microsoft account for Home editions or organizational account (e.g. ADD) for Pro editions After product end of life, Fujitsu continues to test and support new Windows releases for max. 5 years, depending on extension of hardware services through warranty top ups. For more details please visit our Fujitsu Service Statement under <a href="https://support.ts.fujitsu.com/IndexProdSupport.asp?lng=com&amp;OpenTab=">https://support.ts.fujitsu.com/IndexProdSupport.asp?lng=com&amp;OpenTab=</a> The use of Windows Operating System is subject to acceptance of the End User License Agreement of Microsoft as applicable under the relevant Microsoft program.	
	ESPRIMO P6012	ESPRIMO P6012 ESTAR
<b>Memory modules</b>	32 GB (1 module(s) 32 GB) DDR4, unbuffered, non-ECC, 3,200 MT/s, UDIMM 16 GB (1 module(s) 16 GB) DDR4, unbuffered, non-ECC, 3,200 MT/s, UDIMM 8 GB (1 module(s) 8 GB) DDR4, unbuffered, non-ECC, 3,200 MT/s, UDIMM 4 GB (1 module(s) 4 GB) DDR4, unbuffered, non-ECC, 3,200 MT/s, UDIMM	
	ESPRIMO P6012	ESPRIMO P6012 ESTAR
<b>Graphics</b>	Entry 3D: NVIDIA® T400, 4 GB, PCIe x16, 3 x miniDP Entry 3D: NVIDIA® GeForce® GTX 1650, 4 GB, PCIe x16 Others: MiniDP to DP Adapter Cable	Entry 3D: NVIDIA® T400, 4 GB, PCIe x16, 3 x miniDP Others: MiniDP to DP Adapter Cable
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<b>Mass storage 3.5 inch size</b>	HDD SATA III, 7,200 rpm, 1000 GB, 3.5-inch HDD SATA III, 7,200 rpm, 2000 GB, 3.5-inch	

<b>Mass Storage M.2 technology</b>	SSD PCIe, 1024 GB M.2 NVMe module (Gen4), SED SSD PCIe, 128 GB M.2 NVMe Module, Value, SED SSD PCIe, 2048 GB M.2 NVMe module (Gen4), SED SSD PCIe, 256 GB M.2 NVMe Module (Gen4), Value, SED SSD PCIe, 512 GB M.2 NVMe module (Gen4), SED SSD PCIe, 512 GB M.2 NVMe Module (Gen4), Value, SED	SSD PCIe, 1024 GB M.2 NVMe module (Gen4), SED SSD PCIe, 2048 GB M.2 NVMe module (Gen4), SED SSD PCIe, 256 GB M.2 NVMe Module (Gen4), Value, SED SSD PCIe, 512 GB M.2 NVMe module (Gen4), SED SSD PCIe, 512 GB M.2 NVMe Module (Gen4), Value, SED
<b>Hard disk notes</b>	One Gigabyte equals one billion bytes, when referring to hard disk drive capacity. SSD (Solid State Disk) SED (Self-Encrypting Drive)	
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<b>Optical drive</b>	DVD Super Multi ultra slim (tray), SATA BD Triple Writer SATA ultra slim (tray), SATA	
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<b>Interfaces add on cards / components</b>	Parallel Card (1 Port) Intel® Wi-Fi 6E AX211 (2x2/160) Gig+ and Bluetooth 5.2; SRD cat.1 (dedicated regions only) Dual serial card PCIe x1 2.5 Gigabit Ethernet PCIe x1	Intel® Wi-Fi 6E AX211 (2x2/160) Gig+ and Bluetooth 5.2; SRD cat.1 (dedicated regions only)
<b>LAN Notes</b>	WI-FI 6E: The device does not operate in 6GHz band in all countries, due to national regulations. Bluetooth 5.2: Bluetooth® 5.2 operation requires Microsoft OS support. Until Microsoft OS support is available, Bluetooth® 5.2 will function as Bluetooth® 5.1 or lower	
	ESPRIMO P6012	ESPRIMO P6012 ESTAR
<b>Component notes</b>	The listed product components and optional functions are not available in all region/countries	The listed product components and optional functions are not available in all region/countries; Energy Star certification only with Windows operating system Base unit for TCO Certified generation 9

## Base unit

<b>Base unit</b>	ESPRIMO P6012	ESPRIMO P6012 ESTAR
<b>Mainboard</b>		
Mainboard type	D4023-A1	
Formfactor	proprietary	
Chipset	Intel® B660	
Processor socket	LGA1700	
Processor quantity maximum	1	
Supported capacity RAM (max.)	128 GB	
Memory slots	4 DIMM (DDR4)	
Memory frequency	3,200 MT/s	
Memory notes	Dual channel support For dual channel performance, 2 memory modules have to be ordered. Capacity per channel has to be the same. 3200 MT/s may be clocked down to 2933/2400 MT/s depending on processor and memory configuration	
LAN	10/100/1,000 MBit/s Realtek RTL8111H	
Integrated WLAN	optional	
BIOS version	AMI Aptio V UEFI Specification 2.8	
BIOS features	BIOS Flash EPROM update by software Recovery BIOS Unified Extensible Firmware Interface (UEFI)	
Audio type	On board	
Audio codec	Realtek ALC897	
Audio features	Internal speaker supports audio playback, High Definition audio, 5.1 surround sound	

**I/O controller on board**

Serial ATA total	4	
Controller functions	Serial ATA III (6 Gbit) NCQ AHCI SATA RAID Support	

**Interfaces**

Audio: line-in	1	1
Audio: line-out	1	1
Front audio: headset	1	1
USB front	2x USB 2.0; 2x USB 3.2 Gen 2 (10 Gbps) Type-A 1x USB 3.2 Gen 2 (10 Gbps) Type-C (supports up to 15W)	2x USB 2.0; 2x USB 3.2 Gen 2 (10 Gbps) Type-A 1x USB 3.2 Gen 2 (10 Gbps) Type-C (supports up to 15W)
USB rear	2x USB 2.0; 2x USB 3.2 Gen 1 (5 Gbps) Type-A	2x USB 2.0; 2x USB 3.2 Gen 1 (5 Gbps) Type-A
USB internal	1x USB 2.0	1x USB 2.0
DisplayPort	2 (DisplayPort 1.4; DP++)	2 (DisplayPort 1.4; DP++)
Ethernet (RJ-45)	1	1
Interface Module notes	Anytime USB charge functionality	Anytime USB charge functionality
Kensington Lock support	1	1

**Input device / components**

Input devices (optional)	Keyboard Mouse	
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**Drive bays**

Drive bays total	6	
2.5-inch internal bays	1	
3.5-inch internal bays	2	
3.5-inch external bays	1	
5.25-inch external bays	2	
Drive bay notes	5,25" bays: one bay in HH format, one bay for slim optical disc drive only; internal 3.5" bays: 3.5" drive (screwless) or 2.5" drive (screws; optional screwless)	
M.2-2280	1 x on mainboard for SSD NVMe (PCIe 4.0 x4; up to 64Gbit/s)	

**Slots**

PCI-Express 3.0 x4 (mech. x16)	1 x (270 mm / 10.63 inch) Full height	
PCI-Express 3.0 x16	1 x (270 mm / 10.63 inch) Full height	
M.2-2230	on mainboard for WLAN module	

**Graphics on board**

Graphics brand name	Intel® UHD Graphics 770, Intel® UHD Graphics 730, Intel® UHD Graphics 710	
Shared video memory	Up to half size of total system memory	
TFT resolution (DisplayPort)	Up to 4,096 x 2,304 pixel	
Graphics features	Support for up to four independent displays DirectX® 12.1 HDCP support OpenCL 3.0 OpenGL® 4.6 Vulkan™ For multi monitoring mode, graphics card and integrated graphics run in parallel DisplayPort interface supports Ver. 1.4 incl. Multi-Stream Digital audio formats are supported, including Dolby Digital Plus (7.1 channels)	
Base unit	ESPRIMO P6012	ESPRIMO P6012 ESTAR

**Electrical values**

Power efficiency note	Power supply efficiency in % at 10% / 20% / 50% / 100% load 80Plus GOLD: for 230V ; 87/90/92/91 for 115V ; 86/89/91/88  80Plus PLATINUM: for 230V ; 88/92/94/93 for 115V ; 87/91/92/91	
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	GOLD: 280W; PLATINUM: 300 W	
Power factor correction/active power	active	
Monitor outlet	Switched for PLATINUM power supply	
Base unit	ESPRIMO P6012	ESPRIMO P6012 ESTAR

**Power consumption**

Power consumption note	See white paper Energy Consumption
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**Noise emission**

Related Processors for noise	Intel® Core™ i5-12500 processor and 8GB, ODD; Windows 11 (tower position)
Standard noise emission	According to ISO 7779:2010, ECMA-74
Standard noise notes / description	A-weighted sound power level Lwad (in B) / Workplace related A-weighted sound pressure level LpAm (in dB(A))
Standard noise operation mode: CPU 50% load	Bystander; Operator position PLATINUM PSU: 3.2 B / 18 dB(A); 20 dB(A) (SSD M.2) GOLD PSU: 3.4 B / 20 dB(A); 23 dB(A) (3.5 HDD)
Standard noise operation mode: HDD load	
Standard noise operation mode: Idle mode	Bystander; Operator position PLATINUM PSU: 3.2 B / 18 dB(A); 20 dB(A) (SSD M.2) GOLD PSU: 3.4 B / 21 dB(A); 23 dB(A) (3.5 HDD)
Standard noise operation mode: ODD load	Bystander; Operator position PLATINUM PSU: 4.5 B / 31 dB(A); 36 dB(A) (SSD M.2) GOLD PSU: 4.5 B / 31 dB(A); 36 dB(A) (3.5 HDD)
Standard noise operation mode: Office applications 2.0	Bystander; Operator position PLATINUM PSU: 3.2 B / 18 dB(A); 20 dB(A) (SSD M.2) GOLD PSU: 3.4 B / 21 dB(A); 23 dB(A) (3.5 HDD)

**Dimensions / Weight / Environmental**

Dimensions (W x D x H)	180 x 304 x 375 mm 7.09 x 11.97 x 14.76 inch
Operating position	Vertical
Weight	Min: 6.1kg; 1x mem, 1xSDD Max: 7.4kg; power cord (0.2kg) is not part of min/max
Weight (lbs)	approx. 22.05 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 P6012	ESPRIMO P6012 ESTAR
Model	MI7W	
Germany	GS TÜV NRTL	
Europe	CE	

**Compliance**

Global	RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronic equipment) Microsoft Operating Systems (HCT / HCL entry / WHQL)	RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronic equipment) Microsoft Operating Systems (HCT / HCL entry / WHQL) ENERGY STAR® 8.0 EPEAT® Gold (dedicated regions) TCO Certified, generation 9
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Compliance link <https://sp.ts.fujitsu.com/sites/certificates>

**Additional Software**

Additional software (preinstalled)	McAfee® LiveSafe™ (provides award-winning antivirus protection for your PC and much more. 30 days trial pre-installed) Microsoft Office (1 month trial for new Microsoft® Office 365 customers. Buy Microsoft Office.)	
Additional software (optional)	Recovery DVD for Windows® Drivers & Utilities DVD (DUDVD) Nero Essentials XL Microsoft® Office Professional 2021 Microsoft® Office Home and Business 2021 (Need to buy license to activate the pre-installed Microsoft Office. Purchase and activation only in the region in which it was acquired.)	
Additional software (notes)	Use of accompanying and/or additional Software is subject to proactive acceptance of the respective License Agreements /EULAs/ Subscription and support terms of the Software manufacturer as applicable for the relevant Software whether preinstalled or optional. The software may only be available bundled with a software support subscription which – depending on the Software - may be subject to separate remuneration.	
Base unit	ESPRIMO P6012	ESPRIMO P6012 ESTAR

**Security**

Physical Security	Kensington Lock support Eye for padlock Integrated cabinet lock (optional) Cable Cover (optional; covers and secures the ports and cables on rear side)	
System and BIOS Security	Embedded security (TPM 2.0) EraseDisk Credential Guard Ready and Device Guard Capable (requires 8 GB or more system RAM and SSD PCIe NVME) Modern Standby (Windows 11 only) and Legacy Standby selectable Write protect option for the Flash EPROM Control of all USB interfaces External USB ports can be disabled separately Control of external interfaces NIST SP800-147 BIOS Protection supported NIST SP800-155 BIOS Integrity Measurement supported NIST SP800-193 Platform Firmware Resiliency supported	
User Security	User and supervisor BIOS password Hard disk password Access protection via external SmartCard reader (optional) Access protection via internal SmartCard reader (optional)	
Security Notes	The properties of the product provide a baseline for product security and therefore end-customer IT security. However, these properties are not sufficient on their own to protect the product from all existing threats, such as intrusion attempts, data exfiltration and other forms of cyberattacks. To customize security settings, please use the configuration options as available for the respective product. During operation, the IT security of this product is within the responsibility of the respective administrator/end-user of the product. Please note, that Fujitsu as a manufacturer does not make any policy prescriptions or advocacy statements regarding IT security best practices and/or general product operation.	

**Manageability**

Manageability technology	DeskUpdate Driver management PXE 2.1 Boot code Wake up from S5 (off mode) WoL (Wake on LAN)	
Manageability software	DeskView Client DeskView Instant BIOS Management	

**Manageability**

DeskView components	BIOS Management incl. Security Inventory Management Driver Management Alarm Management
Supported standards	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)
Manageability link	<a href="https://www.fujitsu.com/global/products/computing/pc/manageability/">https://www.fujitsu.com/global/products/computing/pc/manageability/</a>

**Miscellaneous**

	Keyboard on with one key (Fujitsu Keyboards KB521, KB955) Keyboard on with two keys (CTRL+CTRL; special Fujitsu USB keyboards required) Keyboard on with any key (USB) Thermal management Integrated dust filter in front bezel
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**Packaging information**

Packaging dimension (mm)	439 x 296 x 499 mm
Packaging dimension (inch)	17.28 x 11.65 x 19.65 inch
Max. quantity / pallet	24
Material - Weight (g) Carton	1114 g
Material - Weight (lbs) Carton	2.46 lbs
Material - Weight (g) PE	246 g
Material - Weight (lbs) PE	0.54 lbs
Packaging notes	printed user documentation is bleached in chlorine free process; Bulk packaging for projects (optional)

**Warranty**

Warranty period	1 year
Warranty type	Bring-In / Onsite Service (depending on country)
Warranty Terms & Conditions	<a href="http://www.fujitsu.com/warranty">http://www.fujitsu.com/warranty</a>
Digital bug fixes	Subject to availability and following their generic release for the product, bug fixes and function-preserving patches for product-related software (firmware) can be downloaded from the technical support at: <a href="https://support.ts.fujitsu.com/">https://support.ts.fujitsu.com/</a> free of charge by entering the respective product serial number. For application software supplied together with the product, please directly refer to the support websites of the respective software manufacturer.

**Product Support - the perfect extension**

Recommended Service	9x5, Onsite Response Time: Next Business Day
Spare Parts availability	5 years
Service Weblink	<a href="http://www.fujitsu.com/emeia/products/product-support-services/">http://www.fujitsu.com/emeia/products/product-support-services/</a>

## Recommended Accessories

## More information

### Fujitsu products, solutions & services

In addition to Fujitsu Desktop ESPRIMO P6012, 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 P6012, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.  
[www.fujitsu.com/emeia/products/computing/pc/desktops/](http://www.fujitsu.com/emeia/products/computing/pc/desktops/)

### 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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### Disclaimer

Please note that the data sheet reflects the technical specification with the maximum selection of components for the named system and not the detailed scope of delivery. The scope of delivery is defined by the selection of components at the time of ordering.

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The overall product has been designed and manufactured for general office use, regular personal use and ordinary industrial use.

### Contact

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