

# Datasheet

## Fujitsu

### Desktop

#### ESPRIMO D6012



Fujitsu recommends Windows 11 Pro

#### Small form factor PC in a more compact and space-saving design

The Fujitsu ESPRIMO D6012 is a high performance, secure small form factor Desktop PC with good expandability and good price performance ratio. Faster operations and a small housing helps in space saving to create the perfect working desk. The 80Plus GOLD and 80Plus PLATINUM power supply helps to reduce environmental impact and energy bills.

#### Latest Intel® chipset technology and higher memory speed

Good performance ensures faster operations and lower system response time

- Intel® B660 chipset with higher memory frequency of 3,200 MT/s

#### Housing provides good expandability Space saving design

- Space saving in width and depth with new 8.3 liters volume

#### Good connectivity

Be flexible and stay productive in a hyper-connected world

- 4x USB Type-A ports, USB Type-C® and audio port in front for easy access

#### High security

Designed to protect data and hardware components

- Hole for pad lock and Kensington as standard for security
- Embedded security with TPM 2.0, EraseDisk

#### Low power consumption and environmental impact

Reduced environmental impact and reduced energy bills

- 80Plus PLATINUM power supply efficiency with monitor outlet



# Specification

	ESPRIMO D6012	ESPRIMO D6012 ESTARx
<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™ 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™ i3-13100 processor (4 Cores/8 Threads, 3.4 GHz, 12 MB, Intel® UHD Graphics 730)*	Intel® Core™ i7-12700 processor (12 Cores(8+4)/20 Threads, 2.1 GHz, 25 MB, Intel® UHD Graphics 770)** 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™ i3-12100 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. Windows 11 Home. Windows 10 Pro (Via Windows 11 Pro Downgrade Option) Fujitsu recommends Windows 11 Pro for business.	
<b>Memory modules</b>	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	
<b>HDD 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>HDD 2.5 inch size</b>	HDD SATA III, 5,400 rpm, 500 GB, 2.5-inch HDD SATA III, 5,400 rpm, 1000 GB, 2.5-inch	
<b>M.2 SSD</b>	SSD PCIe, 2048 GB M.2 NVMe (Gen4), SED SSD PCIe, 1024 GB M.2 NVMe (Gen4), SED SSD PCIe, 512 GB M.2 NVMe (Gen4), SED SSD PCIe, 256 GB M.2 NVMe (Gen4), Value, SED	
Hard disk notes	One Gigabyte equals one billion bytes, when referring to hard disk drive capacity. SSD (Solid State Disk) SED (Self-Encrypting Drive)	
<b>Optical drive</b>	DVD Super Multi ultra slim (tray), SATA	
<b>Wireless LAN</b>	Intel® Wi-Fi 6E AX211 (2x2/160) Gig+ and Bluetooth 5.2 (depends on OS support); SRD cat.1 (6E frequency only in dedicated regions)	
<b>Expansion</b>	Dual serial card PCIe x1 LP 2.5 Gigabit Ethernet PCIe x1 Parallel PCIe x1	-
<b>Wireless LAN Notes</b>	WI-FI 6E: The device does not operate in 6GHz band in all countries, depending on individual local regulations.	
<b>Expansion 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

	ESPRIMO D6012	ESPRIMO D6012 ESTARx
<b>Mainboard</b>		
Mainboard type	D4023-A1	
Formfactor	Proprietary	
Chipset	Intel® B660	
Processor socket	LGA1700	
Processor Qty (max.)	1	
Supported 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 MHz may be clocked down to 2933/2400MHz depending on processor and memory configuration	
LAN	10/100/1,000 MBit/s Realtek RTL8111H	
Integrated WLAN	Optional; The device does not operate in 6GHz band in all countries, due to national regulations.	
BIOS version	AMI Aptio V UEFI Specification 2.6	
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	
<b>I/O controller on board</b>		
Serial ATA total	4	
Controller functions	Serial ATA III (6 Gbit) NCQ AHCI SATA RAID Support	
<b>Interfaces</b>		
Audio: line-in	1	
Audio: line-out	1	
Front audio: headset	1	
USB front	2x USB 2.0 Type A 2x USB 3.2 Gen2 (10 Gbps) Type A 1x USB 3.2 Gen2 (10 Gbps) Type C (supports up to 15W)	
USB rear	2x USB 2.0 Type A	

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	2x USB 3.2 Gen1 (5 Gbps) Type A	
USB internal	1x USB 2.0	
DisplayPort	2 (DP++)	
Ethernet (RJ-45)	1	
Interface Module Notes	Anytime USB charge functionality	
<b>Input device</b>		
Input devices (optional)	Keyboard Mouse	
<b>Drive bays</b>		
Drive bays total	3	
2.5-inch internal bays	1	
5.25-inch external bays	1	
Drive bay notes	Optional: 1x internal 3.5" bay (screwless) can be used via adapter for 1x or 2x 2.5" drives (screwless); 5.25" bay: for slim optical disc drive only;	
M.2-2280	1 x on mainboard for SSD NVMe (PCIe 4.0 x4; up to 64Gbit/s)	
<b>Slots</b>		
PCI-Express 3.0 x4 (mech. x16)	1 x (150 mm / 5.91 inch)	
M.2-2230	On mainboard for WLAN module	
<b>Graphics on board</b>		
Graphics brand name	Intel® UHD Graphics 770, Intel® UHD Graphics 730 *Depends on CPU	
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 HDCP support OpenCL™ 2.1 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)	
<b>Electrical values</b>		
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	

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	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	
<b>Noise emission</b>		
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 L <sub>wad</sub> (in B) / Workplace related A-weighted sound pressure level L <sub>pAm</sub> (in dB(A))	
<b>Dimensions / Weight / Environmental</b>		
Dimensions (W x D x H)	314 x 296 x 89 mm (12.36 x 11.65 x 3.51 inch)	
Operating position	Horizontal / Vertical (optional, feet needed)	
Weight	Approx. 8kg	
Weight (lbs)	Approx. 17.64lbs	
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)	
<b>Compliance</b>		
Model	DTG	
Certification	CE RoHS (Restriction of hazardous substances)	ENERGY STAR® RoHS (Restriction of hazardous substances)
Compliance link	<a href="https://sp.ts.fujitsu.com/sites/certificates">https://sp.ts.fujitsu.com/sites/certificates</a>	

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<b>Additional Software</b>		
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.	
<b>Security</b>		
Physical Security	Kensington Lock support Eye for padlock	
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 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 SP800-193 Platform Firmware Resiliency supported NIST SP800-155 BIOS Integrity Measurement supported NIST SP800-147 BIOS Protection supported	
User Security	User and supervisor BIOS password Hard disk password Access protection via SmartCard reader (optional) AuthConductor Client Basic (secure authentication solution)	
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.	
<b>Manageability</b>		
Manageability technology	DeskUpdate Driver management PXE 2.1 Boot code	

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	Wake up from S5 (off mode) WoL (Wake on LAN)	
Manageability software	DeskView Client DeskView Instant BIOS Management	
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="http://www.fujitsu.com/fts/manageability">http://www.fujitsu.com/fts/manageability</a>	
<b>Packaging information</b>		
Packaging dimension	504 x 440 x 310mm	
Max. quantity / pallet	12	
Packaging material weight	1,534g	
<b>Warranty</b>		
Warranty Terms & Conditions	<a href="https://www.fujitsu.com/hk/ap/warranty">https://www.fujitsu.com/hk/ap/warranty</a>	

## More information

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Note: For countries not listed above, please contact Hong Kong office.

## Specification disclaimers

<sup>1</sup> Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 11 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. <sup>2</sup> GB = 1 billion bytes. TB = 1 trillion bytes, when referring to hard disk drive capacity. Accessible capacity may vary, also depending on used software. Up to 20 GB of HDD space is reserved for system recovery. <sup>3</sup> Shared memory depending on main memory size and operating system.

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