FUJITSU

Fujitsu recommends Windows 11 Pro.

Data Sheet
Fujitsu Desktop ESPRIMO D7012

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

The FUJITSU ESPRIMO D7012 is a high performance, secure small form factor Desktop PC with ultimate expandability, along with best-in-class connectivity. Faster operations and a small housing helps in space saving to create the perfect working desk. The USB Type-C, flexible graphics options, offers great connectivity. The 80Plus GOLD and 80Plus PLATINUM power supply helps to reduce environmental impact and energy bills.

Latest Intel® chipset technology and higher memory speed
High performance ensures faster operations and lower system response time
■ Intel® Q670 chipset with higher memory frequency of 3,200 MT/s
■ Intel® vPro™ Enterprise and Intel® vPro™ Essentials technology as BTO (depending on processor)

Ultimate expandability with easy serviceability
Space saving design for your future computing needs
■ 3x low profile (LP) or 1x LP/ 1x full height (riser) via BTO
■ Space saving in width and depth with 8.3 liters volume
■ Tool-less access to components, easy change and screw-less add on cards

Best-in-class connectivity
Be flexible and stay productive in a hyper-connected world
■ Support of new USB Type-C in front
■ Flexiport options (VGA, DVI-D, HDMI, Type-C, DP, Serial LAN, 2x USB Type-A)
■ USB Type-C support of 60 W (optional to power a display)
■ Legacy PS2, serial port connectors as option

High security with integrated options
Designed to protect data and hardware components against manipulation and theft
■ Cable cover in addition to existing Smartcard reader, Erasedisk software
■ Integrated cabinet lock with master key option
■ Hole for pad lock and Kensington as standard for security

Low power consumption and environmental impact
Reduced environmental impact and reduced energy bills
■ 80Plus GOLD and 80Plus PLATINUM power supply efficiency with monitor outlet
■ Sum of post-consumer recycled content for plastic per weight is 62% (22% are from ITE derived post-consumer material and 40% are any other post-consumer material)

intel
vPRO
i9

Components

	ESPRIMO D7012	ESPRIMO D7012 ESTAR
Processor	Intel® Core™ i9-12900 processor (16 Cores(8+8) / 24 Threads, 2.4 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™ i5-12500 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) * Intel® Pentium® Gold G7400 (2 Cores / 4 Threads, 3.7 GHz, 6 MB, Intel® UHD Graphics 710) *	Intel® Core™ i9-12900 processor (16 Cores(8+8) / 24 Threads, 2.4 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™ i5-12500 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) *
	Intel® vPro® Platform Logo (optional) with Intel® Core™ i5-12500, Intel® Core™ i5-12600, Intel® Core™ i7 and Intel® Core™ i9 processors *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)	

Operating systems

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 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 https://support.ts.fujitsu.com/IndexProdSupport.asp?lng=com&OpenTab= 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 D7012	ESPRIMO D7012 ESTAR
Memory modules	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 D7012	ESPRIMO D7012 ESTAR
Graphics	Entry 3D: NVIDIA® T400, 4 GB, PCIe x16, 3 x miniDP Entry 3D: NVIDIA® T400, 2 GB, PCIe x16, 3 x miniDP Entry 3D: NVIDIA® GeForce® GTX 1650, 4 GB, PCIe x16 Entry 3D: AMD Radeon™ Pro WX 3200, 4 GB, PCIe x16, 4 x miniDP Others: MiniDP to DP Adapter Cable	Entry 3D: NVIDIA® T400, 4 GB, PCIe x16, 3 x miniDP Entry 3D: NVIDIA® T400, 2 GB, PCIe x16, 3 x miniDP Others: MiniDP to DP Adapter Cable

	ESPRIMO D7012	ESPRIMO D7012 ESTAR
Mass storage 3.5 inch size	HDD SATA III, 7,200 rpm, 1000 GB, 3.5-inch HDD SATA III, 7,200 rpm, 2000 GB, 3.5-inch	
Mass Storage M.2 technology	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

Hard disk notes	One Gigabyte equals one billion bytes, when referring to hard disk drive capacity. SSD (Solid State Disk) SED (Self-Encrypting Drive) Durability in accordance with the manufacturer's indications on read and write cycles.	
	ESPRIMO D7012	**ESPRIMO D7012 ESTAR**
Optical drive	BD Triple Writer SATA ultra slim (tray), SATA DVD Super Multi ultra slim (tray), SATA SD Card reader, USB 3.0	
	ESPRIMO D7012	**ESPRIMO D7012 ESTAR**
Interfaces add on cards / components	Parallel Card (1 Port) Intel® Wi-Fi 6E AX211 (2x2/160) Gig+ and Bluetooth 5.2; SRD cat.1 (dedicated regions only) Intel® Wi-Fi 6E AX211 (2x2/160) Gig+ and Bluetooth 5.2 vPro; SRD cat.1 (dedicated regions only) Dual serial card PCIe x1 LP 2.5 Gigabit Ethernet PCIe x1	Intel® Wi-Fi 6E AX211 (2x2/160) Gig+ and Bluetooth 5.2; SRD cat.1 (dedicated regions only) Intel® Wi-Fi 6E AX211 (2x2/160) Gig+ and Bluetooth 5.2 vPro; SRD cat.1 (dedicated regions only)
LAN Notes	WI-FI 6E: The device does not operate in 6GHz band in all countries, due to national regulations. see flexible interface options	
	ESPRIMO D7012	**ESPRIMO D7012 ESTAR**
Component notes	The listed product components and optional functions are not available in all region/countries Thunderbolt option is planed for 12/2022	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 Thunderbolt option is planed for 12/2022

Base unit

Base unit	**ESPRIMO D7012**	**ESPRIMO D7012 ESTAR**
Mainboard		
Mainboard type	D4023-A2	
Formfactor	proprietary	
Chipset	Intel® Q670	
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 MHz may be clocked down to 2933/2400MHz depending on processor and memory configuration	
LAN	10/100/1,000 MBit/s Intel® I219LM	
Integrated WLAN	1 (optional)	
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 ALC257N	
Audio features	Internal speaker supports audio playback, High Definition audio, 5.1 surround sound	
I/O controller on board		
Serial ATA total	4	

I/O controller on board

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
Flexible Interface Options	One of following flexible Interface options can be added to the system HDMI™ 2.1 DisplayPort™ 1.4a DVI-D VGA USB 3.2 Gen 2 (10Gbps) Type-C™ (supports DisplayPort™ 1.4 and power delivery (PD) up to 60W. Occupies in addition PCIe x16 slot) USB 3.2 Gen 2 (10 Gbps) Type-C™ (supports DisplayPort™ 1.4 and power delivery (PD) up to 15W) Intel® Thunderbolt™ 4 (40 Gbps, supports DisplayPort 1.4 and 15W power delivery) 2.5 Gigabit Ethernet (Intel 225LM) 2x USB 2.0 Type A Serial port (9pin, 16 byte FIFO, 16550 compatible)	One of following flexible Interface options can be added to the system HDMI™ 2.1 DisplayPort™ 1.4a DVI-D VGA USB 3.2 Gen 2 (10Gbps) Type-C™ (supports DisplayPort™ 1.4 and power delivery (PD) up to 60W. Occupies in addition PCIe x16 slot) USB 3.2 Gen 2 (10 Gbps) Type-C™ (supports DisplayPort™ 1.4 and power delivery (PD) up to 15W) Intel® Thunderbolt™ 4 (40 Gbps, supports DisplayPort 1.4 and 15W power delivery) 2x USB 2.0 Type A Serial port (9pin, 16 byte FIFO, 16550 compatible)
USB front	3x USB 2.0 Type-A 1x USB 3.2 Gen 2 (10 Gbps) Type-A 1x USB 3.2 Gen 2x2 (20 Gbps) Type-C (supports up to 15W)	3x USB 2.0 1x USB 3.2 Gen 2 1x USB 3.2 Gen 2x2 Type-C (supports up to 15W)
USB rear	4x USB 2.0 Type-A 2x USB 3.2 Gen 1 (5 Gbps) Type-A see flexible interface options	4x USB 2.0 Type-A 2x USB 3.2 Gen 1 (5 Gbps) Type-A see flexible interface options
USB internal	1x USB 2.0 or 1x USB 3.2 Gen 1 (5Gbps) Type-A	1x USB 2.0 or 1x USB 3.2 (Gen 1) Type A
DisplayPort	2 (DisplayPort 1.4)	2 (DisplayPort 1.4)
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

Drive bays

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	2 x On mainboard for SSD NVMe (PCIe 4.0 x4; up to 64Gbit/s)

Slots

PCI-Express 3.0 x1	1 x (110 mm / 4.33 inch) Low profile
PCI-Express 3.0 x4 (mech. x16)	1 x (150 mm / 5.91 inch)
PCI-Express 4.0 x16	1 x (210 mm / 8.27 inch) Low profile
Slots optional configuration	Optional slot versions: Rear wall with FH riser: 1x LP PCIe x4 = 150mm (5.9 inch), 1x FH PCIe x16 = 203mm (7,99 inch); CELSIUS Edition with special heatsink: 1x LP PCIe x4 = 150mm (5.9 inch), 1x LP PCIe x16 slot = 170 mm (6.69 inch) and 1x LP PCIe x1 = 170mm (6,69 inch)
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

Graphics on board

Shared video memory	Up to half size of total system memory
TFT resolution (VGA)	Up to 1,920 x 1,080 pixel
TFT resolution (DVI)	Up to 1,920 x 1,200 pixel
TFT resolution (DisplayPort)	Up to 4,096 x 2,304 pixel
TFT resolution (HDMI)	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) DVI-D interface supports audio output if connected to the HDMI interface of a display via suitable adapter cables (not included) see flexible interface options
Base unit	ESPRIMO D7012	ESPRIMO D7012 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 D7012	ESPRIMO D7012 ESTAR

Power consumption

Power consumption note	See white paper Energy Consumption

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))

Dimensions / Weight / Environmental

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. 8 kg
Weight (lbs)	approx. 17.64 lbs
Weight notes	Actual weight may vary depending on configuration
Operating ambient temperature	10 - 35 ℃ (50 - 95 °F)
Operating relative humidity	5 - 85 % (relative humidity)

Compliance

Product	ESPRIMO D7012	ESPRIMO D7012 ESTAR

Compliance

Model	DTG	
Germany	GS TÜV NRTL	
Europe	CE	
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) EPEAT® in progress (dedicated regions) TCO Certification in progress ENERGY STAR® in progress
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) CyberLink PowerDVD BD (playback software for Blu-ray Disc™) CyberLink PowerDVD DVD (playback software for DVD) 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 accopanying 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 D7012	ESPRIMO D7012 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 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) 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.

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 AMT 16.0 (optional; depending on processor)
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	http://www.fujitsu.com/fts/manageability

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 Extended lifetime Internal dust filter (optional)

Packaging information

Packaging dimension (mm)	499 x 296 x 439 mm
Packaging dimension (inch)	19.65 x 11.65 x 17.28 inch
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	http://www.fujitsu.com/warranty
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: https://support.ts.fujitsu.com/ 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	http://www.fujitsu.com/emeia/products/product-support-services/

Recommended Accessories

More information

Fujitsu products, solutions & services

In addition to Fujitsu Desktop ESPRIMO D7012, 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/

Software
www.fujitsu.com/software/

More information

Learn more about Fujitsu Desktop ESPRIMO D7012, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
www.fujitsu.com/emeia/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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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.