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Fujitsu recommends Windows 11 Pro.

Data Sheet
Fujitsu Desktop ESPRIMO G9012

A smart and ultra-compact Mini PC for advanced office needs

The Fujitsu ESPRIMO G9012 is a smart Mini PC which offers advanced Desktop PC functionality in an ultra-compact, space-saving design. Making it a perfect device for working from home or in flexible workplaces with its single cable Type-C connection. Provided with Intel vPro® with 12th Gen Intel® Core™ processors, the devices empowers impressive performance/volume ratio.

A smart Mini PC with ultra-compact design
Eye-catching exclusive modern design
■ Low noise Mini PC thus providing ergonomic, clean and clutter-free working environment
■ Offers advanced desktop PC functionality with a volume of only ~0.87 liters
■ Impressive performance/volume ratio and is easy to set up in minutes

Small in size but grand in performance
High performance in a small Mini PC design
■ Intel chipset technology and 12th Generation Intel® Core™ processor family
■ Intel® vPro™ Enterprise and Intel® vPro™ Essentials technology as BTO
■ Next generation Intel integrated graphics

Flexibility without limits
Pleasant working environment due to quiet system
■ Concept with different heights allows ODD and upgrade options like power supply and PCIe slot
■ Flexibility for later device upgrades
■ Various mounting options

Ultimate usability - Perfect fit for modern offices and workplaces
Flexible mounting options and wide range of usage scenarios
■ Integrated into Fujitsu AIO Display P2410 enables a space saving all-in-one system fullfilling the specification of the Intel's new Modern Commercial Desktop program
■ Can be used for horizontal or vertical operations and easy upgrade of major components
■ VESA mount for attaching the PC to displays, stands or walls
■ Ideal device to use for home office scenarios due to its mobility and one cable solution

Made in Europe with low environmental impact
Reduced environmental impact and reduced energy bills
■ High efficient AC adapter or internal 80Plus PLATINUM power supply as option
■ Sum of post-consumer recycled content for plastic per weight is up to 50% (min. 11% are from ITE derived post-consumer material and min. 35% are any other post-consumer material)

Components

	ESPRIMO G9012	ESPRIMO G9012 ESTAR
Processor		
	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 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 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. Thunderbolt 4 not part of Red Hat© certification	
	ESPRIMO G9012	ESPRIMO G9012 ESTAR
Memory modules		
	ESPRIMO G9012	ESPRIMO G9012 ESTAR
Graphics		
Hard disk notes	One Gigabyte equals one billion bytes, when referring to hard disk drive capacity. SSD (Solid State Disk) SED (Self-Encrypting Drive) 2.5-inch bay for devices with 7mm height Durability in accordance with the manufacturer's indications on read and write cycles.	
	ESPRIMO G9012	ESPRIMO G9012 ESTAR
Optical drive		
	ESPRIMO G9012	ESPRIMO G9012 ESTAR
LAN Notes	WI-FI 6E: The device does not operate in 6GHz band in all countries, due to national regulations. see flexible interface options 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 G9012	ESPRIMO G9012 ESTAR
Component notes	The listed product components and optional functions are not available in all region/countries; System is available in 3 different housing versions: Small version (0.87 Liter) ODD bay version (1.23 Liter) Interal Power supply (1,85 Liter) Internal Power supply/ PCIe Slot version (1.85 Liter) (Planned for Jan 2023)	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; System is available in 3 different housing versions: Small version (0.87 Liter) ODD bay version (1.23 Liter) Interal Power supply (1,85 Liter) Internal Power supply/ PCIe Slot version (1.85 Liter) (Planned for Jan 2023)

Base unit

Base unit	ESPRIMO G9012	ESPRIMO G9012 ESTAR
Mainboard		
Mainboard type	D4014-A (base system) resp. D4015-A (Thunderbolt 4 version)	
Formfactor	proprietary	
Chipset	Intel® Q670	
Processor socket	LGA1700	
Processor quantity maximum	1	
Supported capacity RAM (max.)	64 GB	
Memory slots	2 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 Internal Power supply/ PCIe Slot version is limited to max. 48 GB total memory (32 GB + 16 GB)	
LAN	10/100/1,000 MBit/s Intel® I219LM	
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 ALC257N	
Audio features	Internal speaker supports audio playback, High Definition audio	
I/O controller on board		
Serial ATA total	2	
Controller functions	Serial ATA III (6 Gbit) NCQ AHCI RAID 1/0	
Interfaces		
Front audio: headset	1	1
Flexible Interface Options	One of following flexible Interface options can be added to the base system (not on Thunderbolt version) HDMI™ (supports 4k@60Hz as specified in HDMI™ 2.1) DisplayPort™ 1.4a (external HDMI- and DVI adapters not supported) 2.5 Gigabit Ethernet (Intel 225LM) Serial port (9pin, 16 byte FIFO, 16550 compatible) 2x USB 2.0 Type A	One of following flexible Interface options can be added to the base system (not on Thunderbolt version) HDMI™ (supports 4k@60Hz as specified in HDMI™ 2.1) DisplayPort™ 1.4a (external HDMI- and DVI adapters not supported) Serial port (9pin, 16 byte FIFO, 16550 compatible) 2x USB 2.0 Type A
USB front	1x USB 3.2 Gen 1 (5 Gbps) Type-A 1x USB 3.2 Gen 2 (10 Gbps) Type-A 1x USB 3.2 Gen 2x2 (20 Gbps) Type-C (provides up to 15W)	1x USB 3.2 Gen 1 (5 Gbps) Type-A 1x USB 3.2 Gen 2 (10 Gbps) Type-A 1x USB 3.2 Gen 2x2 (20 Gbps) Type-C (provides up to 15W)

Interfaces

USB rear	Base system: 1x USB 2.0 Type-A 3x USB 3.2 Gen 2 (10 Gbps) Type-A 1x USB 3.2 Gen 2 Type-C (10 Gbps, supports DisplayPort 1.4 and power delivery sink**) Thunderbolt version: 5x USB 3.2 Gen 2 (10 Gbps) Type-A 1x Type-C Intel® Thunderbolt™ (40 Gbps, supports DisplayPort 1.4 and power delivery sink**) see flexible interface options	Base system: 1x USB 2.0 Type-A 3x USB 3.2 Gen 2 (10 Gbps) Type-A 1x USB 3.2 Gen 2 Type-C (10 Gbps, supports DisplayPort 1.4 and power delivery sink**) Thunderbolt version: 5x USB 3.2 Gen 2 (10 Gbps) Type-A 1x Type-C Intel® Thunderbolt™ (40 Gbps, supports DisplayPort 1.4 and power delivery sink**) see flexible interface options
DisplayPort	1 (DisplayPort 1.4; DP++)	1 (DisplayPort 1.4; DP++)
HDMI	1 - Supports 4K@60Hz as specified in HDMI™ 2.1	1 - Supports 4K@60Hz as specified in HDMI™ 2.1
Ethernet (RJ-45)	1	1
Interface Module notes	**With power delivery sink support, the system is operated by the power from peripherals, e.g. port replicators or displays. An extra power supply for the system is not needed. Peripherals must provide min. 60 Watt or 90 Watt (for maximum CPU performance).	**With power delivery sink support, the system is operated by the power from peripherals, e.g. port replicators or displays. An extra power supply for the system is not needed. Peripherals must provide min. 60Watt or 90Watt (for maximum CPU performance).
Kensington Lock support	1	1

Input device / components

Input devices (optional)	Keyboard Mouse

Drive bays

Drive bays total	2
2.5-inch internal bays	1
5.25-inch external bays	1
Drive bay notes	5.25" bay: for slim optical disc drive only as option with ODD bay housing version;
M.2-2280	1 x on mainboard (PCIe 4.0 x4; up to 64Gbit/s) and 1 x optional (PCIe 3.0 x4; up to 32Gbit/s)

Slots

PCI-Express 3.0 x4 (mech. x16)	1 x (168 mm / 6.61 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
Shared video memory	Up to half size of total system memory
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™ DisplayPort interface supports Ver. 1.4 incl. Multi-Stream Digital audio formats are supported, including Dolby Digital Plus (7.1 channels) see flexible interface options
Base unit	ESPRIMO G9012	ESPRIMO G9012 ESTAR

Electrical values

Power efficiency note	90 Watt AC adapter: power supply efficiency at 115/230 V: 89% average efficiency 150 Watt internal PLATINUM power supply (optional): Power supply efficiency in % at 10% / 20% / 50% / 100% load for 230 V ; 90/93/94/94 for 115 V ; 90/91/93/92	90 Watt AC adapter: power supply efficiency at 115/230V: 89% average efficiency 150 Watt internal PLATINUM power supply (optional): Power supply efficiency in % at 10% / 20% / 50% / 100% load for 230V ; 90/93/94/94 for 115V ; 90/91/93/92
Rated voltage range	100 V - 240 V	100 V - 240 V

Electrical values

Rated frequency range	50 Hz - 60 Hz	50 Hz - 60 Hz
Operating voltage range	90 V - 264 V	90 V - 264 V
Operating line frequency range	47 Hz - 63 Hz	47 Hz - 63 Hz
Max. output of single power supply	AC Adapter: 90 W internal PLATINUM power supply (optional): 150 W	AC Adapter: 90 W internal PLATINUM power supply (optional): 150 W
Base unit	ESPRIMO G9012	ESPRIMO G9012 ESTAR

Power consumption

Power consumption note	See white paper Energy Consumption

Noise emission

Related Processors for noise	Intel® Core™ i5-12500T processor and 8GB, no 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	3.0 B / 17 dB(A) Bystander; 18 dB(A) Operator position (SSD M.2)
Standard noise operation mode: HDD load	3.5 B / 22 dB(A) Bystander; 23 dB(A) Operator position (SSD M.2)
Standard noise operation mode: Idle mode	2.9 B / 16 dB(A) Bystander; 16 dB(A) Operator position (SSD M.2)
Standard noise operation mode: Office applications 2.0	

Dimensions / Weight / Environmental

Dimensions (W x D x H)	146.5 x 164.5 x 36 mm
	5.77 x 6.48 x 1.42 inch
Dimension notes	With ODD drive bay, the dimensions are: 146.5 x 164.5 x 51 mm (5.77 x 6.48 x 2.01 inch) With internal power supply / PCIe slot version, the dimensions are: 146.5 x 176.9 x 71 mm (5.77 x 6.97 x 2.80 inch)
Operating position	Vertical / horizontal (feet included)
Weight	Small Min:0.86kg; 1x mem,1xSDD Max:1.025kg; 2x mem,2xSSD,HDD,Flexi,WLAN ODD vers.: Min:1.2kg/Max:1.29kg int. PSU vers.: Min:1.45kg/Max:1.59kg AC adapt.(0.32kg), power cord(0.175kg) not part of min/max
Weight (lbs)	Small: Min: 1.89 lbs / Max: 2.246 lbs ODD version: Min:2.65 lbs / Max:2.84 lbs Int. PSU version: Min:3.2 lbs / Max:5.51 lbs AC adapter (0.71 lbs) and power cord 0.39 lbs) are not part of min/max 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 G9012-1 (AC Adapter) ESPRIMO G9012-2 (Internal PSU)	ESPRIMO G9012 ESTAR1 (AC Adapter) ESPRIMO G9012 ESTAR2 (Internal PSU)
Model	MPCG	
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) Microsoft Secured-core PC certification (for selected configurations) ENERGY STAR® 8.0 TCO Certified, generation 9 EPEAT® Gold (dedicated regions)
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 G9012	ESPRIMO G9012 ESTAR

Security

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 (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)
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	Intel® vPro® Essentials (optional) Intel® vPro® Enterprise (optional) Intel AMT 16.0 (optional; depending on processor) DeskUpdate Driver management PXE 2.1 Boot code Wake up from S5 (off mode) Intrusion switch WoL (Wake on LAN)

Manageability

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	https://www.fujitsu.com/global/products/computing/pc/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 power supply version only)
Accessories information	Further helpful options Desktop Accessories: http://www.fujitsu.com/global/products/computing/peripheral/accessories/desktop/ http://www.fujitsu.com/global/products/computing/peripheral/accessories/connectivity/ Stands and Mounting kits: http://www.fujitsu.com/global/products/computing/peripheral/accessories/desktop/ums/index.html Available Adapters: http://globalsp.ts.fujitsu.com/dmsp/Publications/public/pos-connectivity.pdf

Packaging information

Packaging dimension (mm)	395 x 198 x 284 mm
Packaging dimension (inch)	15.55 x 7.8 x 11.18 inch
Max. quantity / pallet	42
Material - Weight (g) Carton	830 g
Material - Weight (lbs) Carton	1.83 lbs
Material - Weight (g) PE	15 g
Material - Weight (lbs) PE	0.03 lbs
Packaging notes	If keyboard is included in packaging: 1.)packaging dimension is increasing to: 497 x 206 x 293mm / (19.6 x 8.11 x 11.5 inch); 2.) material weight is increasing to: carton 1025g, PE 15g Internal PSU version: the material weigth is: carton 638g (wo KB)/ 833g (w. KB), PE 93g printed user documentation is bleached in chlorin free process; Bulk packaging for projects (optional)

Warranty

Warranty period	3 years
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	at least 5 years after shipment, for details see https://support.ts.fujitsu.com/
Service Weblink	http://www.fujitsu.com/emeia/products/product-support-services/

Recommended Accessories

Mounting Kit for Height Adjustable Fujitsu Displays - up to 11th Gen. Display (2022)		The Fujitsu Mounting Kit for Height Adjustable Fujitsu Displays has been specifically (2022) designed for use with ESPRIMO Q/G Mini PCs, FUTRO Thin Clients and Fujitsu Displays. With this solution you can save space on the desk, reduce clutter on desk and realize a clean desk working environment.	Order Code: FPCSK834GP
Mounting Kit for Height Adjustable Fujitsu Displays - up to 10th Gen. Display		The Fujitsu Mounting Kit for Height Adjustable Fujitsu Displays has been specifically designed for use with ESPRIMO Q/G Mini PCs, FUTRO Thin Clients and Fujitsu Displays. With this solution you can save space on the desk, reduce clutter on desk and realize a clean desk working environment.	Order Code: S26361-F2542-L452
Universal Monitor Stand		Save desk space without compromising productivity with the Universal Monitor Stand that brings together a Desktop ESPRIMO Mini PC (G Series Small and ODD plus Q Series) or Thin Client FUTRO and a VESA compatible Fujitsu Display. For optimum ergonomics the height and tilt angle of the display can be adjusted, whilst hassle-free installation of the devices on the stand makes the life of your IT department easier.	Order Code: S26361-F2601-L700
			Order Code: S26381-K473-L100

More information

Fujitsu products, solutions & services

In addition to Fujitsu Desktop ESPRIMO G9012, 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 G9012, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
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.