Datasheet
Fujitsu
Desktop
ESPRIMO G9012

Fujitsu recommends Windows 11 Pro

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 USB Type-C® connection. Provided with the latest 13th generation Intel® Core™ processors and Intel vPro® technology, the devices empower 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

- Latest Intel chipset technology and 13th generation Intel® Core™ processor family
- With Intel vPro® version for latest out-of-band management features
- 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

- Integrated into Fujitsu AIO Display P2410 enables a space saving all-in-one system
- 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

Low power consumption and environmental impact

Reduced environmental impact and reduced energy bills

- Highly efficient AC adapter 80Plus PLATINUM or internal power supply as option

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Specification

	ESPRIMO G9012	ESPRIMO G9012 ESTARx
Processor	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) *	
	Intel vPro® Platform Logo (optional) with Intel® Core™ i5-12500, i5-13500 and Intel® Core™ i7 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) ^90 Watt AC adapter is required for maximum CPU performance	
Operating systems		
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.	
Memory modules	16 GB (1 module(s) 16 GB) DDR4, unbuffered, non-ECC, 3,200 MT/s, SO DIMM. 8 GB (1 module(s) 8 GB) DDR4, unbuffered, non-ECC, 3,200 MT/s, SO DIMM 4 GB (1 module(s) 4 GB) DDR4, unbuffered, non-ECC, 3,200 MT/s, SO DIMM	
Graphics	Entry 3D: NVIDIA® T600, 4 GB, PCIe x16, 4 x miniDP Entry 3D: NVIDIA® T400, 4 GB, PCIe x16, 3 x miniDP Others: MiniDP to DP Adapter Cable *Optional in Int. PSU version	
HDD 2.5 inch size	HDD SATA III, 5,400 rpm, 1000 GB, 2.5-inch HDD SATA III, 5,400 rpm, 2000 GB, 2.5-inch	
M.2 SSD	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) 2.5-inch bay for devices with 7mm height Durability in accordance with the manufacturer's indications on read and write cycles.	
Optical drive	DVD Super Multi ultra slim (tray), SATA (optional)	
Wireless LAN	Intel® Wi-Fi 6E AX211 (2x2/160) Gig+ and Bluetooth 5.2 vPro (depends on OS support); SRD cat.1 (6E frequency only in dedicated regions)	
Wireless LAN Notes	WI-FI 6E: The device does not operate in 6GHz band in all countries, depending on individual local regulations.	

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Expansion 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) Internal Power supply/ PCIe Slot version (1.85 Liter)	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) Internal Power supply/ PCIe Slot version (1.85 Liter)

Base unit

	ESPRIMO G9012	ESPRIMO G9012 ESTARx
Mainboard		
Mainboard type	D4014-A (base system)	
Formfactor	Proprietary	
Chipset	Intel® Q670	
Processor socket	LGA1700	
Processor Qty (max.)	1	
Supported 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 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	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 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	
USB front	1x USB 3.2 Gen1 (5 Gbps) Type-A 1x USB 3.2 Gen2 (10 Gbps) Type-A 1x USB 3.2 Gen2x2 (20 Gbps) Type-C (provides up to 15W)	
USB rear	Base system: 1x USB 2.0 Type-A (plus 2 ports optional*) 3x USB 3.2 Gen2 (10 Gbps) Type-A 1x USB 3.2 Gen2 (10 Gbps) Type-C (supports DisplayPort 1.4 and power delivery sink**)	

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DisplayPort	1x (DisplayPort 1.4, DP++) (2nd port optional*, DP)	
Serial (RS-232)	1 (optional*)	
HDMI	1x HDMI 2.1 (2nd port optional*)	
Ethernet (RJ-45)	1x RJ-45	
Interface Module notes	Only one of the interfaces marked as "optional" can be configured at the same time. **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. 90Watt (for maximum CPU performance).	

Input device

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)	

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 *Depends on CPU	
Shared video memory	Up to half size of total system memory	
Graphics features	Support for up to four independent displays DirectX® 12 HDCP support OpenCL™ 2.1 OpenGL® 4.6 Vulkan™ DisplayPort interface supports Ver. 1.4 incl. Multi-Stream HDMI™ 2.1 Digital audio formats are supported, including Dolby Digital Plus (7.1 channels)	

Electrical values

Power efficiency note	90 Watt AC adapter: power supply efficiency at 115/230V: 89% average efficiency	
Rated voltage range	100 V - 240 V	
Rated frequency range	50 Hz - 60 Hz	
Operating voltage range	90 V - 264 V	

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Operating line frequency range	47 Hz - 63 Hz	
Max. output of single power supply	AC Adapter: 90 W internal PLATINUM power supply (optional): 150 W	
Noise emission		
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)	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	Base: Min:0.86kg; 1x mem,1xSDD / Max:1.025kg; 2x mem,2xSSD,HDD,Flexi,WLAN ODD version: Min:1.2kg/Max:1.29kg Int. PSU version: Min:1.45kg/Max:1.59kg *Weight of AC adapter and power cord are not included	
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		
Model	MPCG	
Certification	CE RoHS (Restriction of hazardous substances) CCC (In progress) BSMI (In progress)	ENERGY STAR® RoHS (Restriction of hazardous substances) CCC (In progress) BSMI (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.)	

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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.	

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 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.	

Manageability

Manageability technology	DeskUpdate Driver management PXE 2.1 Boot code Wake up from S5 (off mode) Intrusion switch WoL (Wake on LAN) Intel AMT 16.0 (depending on processor)	
Manageability software	DeskView Client DeskView Instant BIOS Management	
DeskView components	BIOS Management incl. Security Inventory Management	

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	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	

Packaging information

Packaging dimension (mm)	489 x 218 x 165mm
Max. quantity / pallet	48
Packaging material weight	702g

Warranty

Warranty Terms & Conditions	https://www.fujitsu.com/hk/ap/warranty

More information

Moving forward for a sustainable world – Fujitsu Uvance

The word "Uvance" embodies a concept of "Making all (Universal) things move forward (Advance) in a sustainable direction.

Fujitsu Uvance will leverage Fujitsu's technological capabilities and problem-solving expertise across seven key focus areas, including Sustainable Manufacturing, Consumer Experience, Healthy Living, Trusted Society, Digital Shifts, Business Applications, and Hybrid IT, to offer unprecedented value to customers, while contributing to the achievement of its ultimate purpose —"to make the world more sustainable by building trust in society through innovation."

Through Fujitsu Uvance, we are committed to transforming the world into a place where people can live their lives, enjoying prosperity and peace of mind. Empowering each other to make the world more sustainable.

For more information of Fujitsu Uvance, please visit https://www2.fujitsu.com/global/uvance

Driving customer success with Fujitsu's complete portfolio of service offering

To grow in an uncertain world, it is imperative to stay resilient and agile to respond complex and unforeseen challenges.

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

Specification disclaimers

[1] 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. [2] 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. [3] Shared memory depending on main memory size and operating system.

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