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smart security
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DAT-CON Multi sensor 180/A210



DAT - CON Multi sensor 180/A210 system provides maximum range performance with Uncooled LWIR Thermal Imager, high resolution colour zooms TV camera with low light capability and Laser rangefinder placed on a gyro stabilized movable platform. High resolution uncooled thermal camera enables clear sight picture in all weather conditions regardless of day or night use. System is also equipped with external video processing unit that is the “brain” of the system and allows you options like video tracking, image stabilization... This makes operators search for the target easier as it enables use of wide field of view when actual targeting takes place.

General features

- Simultaneous preview of day/night camera and thermal
- Continuous zoom on both payloads
- Radar connectivity (Slew to Cue)
- Radar tracking possibility
- Target acquisition and tracking (auto or remote triggering)
- Rigid system design
- Analytics board: video stabilization, multi object tracking
- CE marked
- Control and picture streaming via TCP/IP
- Electronic image stabilization on both payloads
- Temperature range of the whole system: -32 to +55°C
- Maximum humidity of the whole system: 95%
- IP rating of the whole system: IP67

System configuration

- Uncooled Thermal camera
- Day/Night camera
- External video processing unit (VPU-ST)
- Pan-tilt Tracer

Vibration test: IEC 60068-2-64

Shock test: IEC 60068-2-27

Icing test: NEMA 250

Salt fog test: IEC 60068-2-52

Applications:

- Land observation
- Vehicle drive observation
- Naval
- Fixed installation



1. Un-Cooled LWIR Thermal Camera ULRT-180

The ULRT-Series are equipped with a highly reliable, long-wave, un-cooled Vanadium Oxide (VOx) detector which offers good long-range detection in all weather conditions. There is no maintenance required since there is no cooling device. The cameras offer a continuous zoom. This offers excellent situational awareness while also giving the possibility to zoom in at suspect activities, and have a closer look, once they are detected. The ULRT-series can be integrated into existing networks or used portably.



Technical specifications

Detector	Uncooled LWIR VOx microbolometer
Resolution	640 x 512
Frame rate	25/30 Hz
Detector pitch	12 μ m
Spectral range	8 to 14 μ m
NETD	\leq 40mK
Focal length	30 – 180 mm
Field of View	14.6° - 2.4° (H)
Continuous Optical Zoom	Yes, up to 6x
Focus	Automatic or Manual (remote)
Image stabilization	Yes* (using VPU/ST)
Image processing	Tuneable Digital Detail Enhancement Brightness Contrast Digital Noise Reduction Non uniformity correction White Hot / Black Hot Colour Palette OSD
Video outputs	Analog, RTSP H.264 Ethernet stream
Control interface	Serial, Ethernet
Consumption	15 W typical, < 60 W maximum with heaters / lens defrost
Operating voltage	18 - 32 Vdc
Operating temperature range	-32°C to +55°C
IP rating	IP67, built according to MIL-810
Dimensions	600 x 225 x 220 mm
Weight	14 kg

DRI – Detection, recognition and identification



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Atmosphere Extinction coefficient	$\sigma = 0.2 / \text{km}$	$\sigma = 1.0 / \text{km}$
DRI – NATO (VEHICLE) TARGET (2.3m x 2.3m)		
Detection	11.85 km	4.35 km
Recognition	5.80 km	3.08 km
Identification	3.09 km	2.13 km
DRI - HUMAN TARGET (1.8m x 0.5m)		
Detection	6.84 km	3.37 km
Recognition	2.57 km	1.89 km
Identification	1.30 km	1.19 km
DRI – DJI Phantom (0.4m x 0.3m)		
Detection	2.80 km	2.00 km
Recognition	0.95 km	0.91 km
Identification	0.48 km	0.47 km

Method	STANAG 4347
Probability	50 %
delta T	2 K
Background temperature	288 K



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2. HD Day/Night Camera DAT – CON LRCS-A210

The LRCS is an integrated unit, based on a highly sensitive CMOS megapixel camera module. It is ideal for day/night surveillance of military camp, homeland security (border protection), and critical infrastructure protection (CIP) applications. It is designed to deliver high-performance images, even under the harshest conditions, in temperatures ranging from -32°C to +55°C with IP67 protection, built according to MIL-810 standards.



Technical specification

Sensor	1/1.9" CMOS sensor
Pixels	1920 x 1080
Sensitivity	Colour 0.001 Lux @ (F1.5, 25 fps); B&W 0.0001 Lux @ (F1.5, 25 fps);
Field of view	59°- 2.25°
Continuous Optical Zoom	Yes, up to 30x
Continuous Digital Zoom	Yes, up to 8x
Focus	Automatic or Manual (remote)
Image stabilization	Yes* (using VPU/ST)
Optical filters	Colour: IR Cut filter / B&W: Defog Filter – NIR only
Image processing	Auto / Manual White Balance Auto / Manual Gain Control Wide Dynamic Range Digital Fog Removal / Auto Contrast Dynamic Noise Reduction
Video outputs	HD-SDI or analog, optional RTSP H.264 Ethernet stream (using VPU/ST)
Control interface	Serial, Ethernet
Consumption	15 W typical, < 60 W maximum with heaters / lens defrost
Operating voltage	18 - 32 Vdc
Operating temperature range	-32°C to +55°C
IP rating	IP67, built according to MIL-810
Dimensions	488 x 166x 172 mm
Weight	7.5 kg



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3. Pan-Tilt TRACER

Simple and efficient is what describes pan-tilt Tracer. In fully marinated body lies a single powerful motion control driver. It is capable of handling payloads up to 35kg in full range of motion. Its compact design and low weight make it perfect for integration where space is limited. Multiple slipping options make it compatible with most payloads from high frequency antenna applications to Gigabit electro-optical head connections.



Load capacity / Torque	35 kg / 60 Nm
Weight	25 kg (with arms)
Dimensions (H x W x L)	323 x 220 x 336 mm (without arms)
Materials	Aluminium
Operating temperature	-32°C to +55°C
Pan axis range / angle	n x 360°
Pan axis speed	0.001°/s - 60 °/s
Tilt axis range / angle	± 90° (limited by application between ± 35° and ± 45°)
Tilt axis speed	0.001°/s - 60 °/s
Accuracy	0.02°
Backlash	None
Brake	Self-Locking
Operating voltage	18 - 32 VDC
Maximum power	160 W
Communication to the unit	Eth 10/100 Base-T, RS-232, RS-485, 422 (optional)
Control protocol	DC-PT protocol
Protection / IP rating	IP67, built according to MIL-810



4. EXTERNAL VIDEO PROCESSING UNIT (VPU-ST)



Video processing unit (VPU-ST) is a hardware processing unit that is the “brains” of the multi sensor system. It combines all the payloads and Pan-Tilt unit into a single unit for the external observer and enable a single Ethernet connection to the whole unit including access to video streams and control of the entire system. VPU-ST enables dedicated advanced protocol that includes video as well as status and control. It has a powerful built in processor, that enables functions like video stabilization, H.264 encoding, video tracking.

- Power control and communication with each device
- Built in test for each device (BIT)
- Integrated Ethernet switch
- Communication interfaces: Ethernet (UDP), Serial
- H.264 Video encoding for all video payloads
- Two separated output video streams
- Control and video interface through Ethernet and serial (control only)
- Wide variety of video processing:
 - Video stabilization with roll correction
 - Advanced hardware scene and object video tracking
 - On Screen Display (OSD)
- Connectivity: four military standard connectors; 3 x input / 1 output
- Power: 18 – 32 Vdc; 30 W max.
- Environmental: IP 67, build with accordance to MIL-810
- Operating temperature range: -32 to 55°C
- Dimensions: 261 x 185 x 73 mm
- Weight: 3000 g



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5. Laser rangefinder LDC0/10

LDC0 represents the ultimate long-distance laser rangefinder. It is light weight and features ranging capability up to 32 km. With reduced measurement ranges LDC0 meets high continuous measurement rates up to 40 measurements per second in single mode and up to 200 Hz in burst mode.



Technical specification

Eye safety	Laser Class 1
Measurement range	50m – 32 000m
Measurement range (Standard target):	10 000m – Target size 2.3 x 2.3 m, visibility 15 km, target reflectivity 30%, detection probability >90%
Precision	0.5 – 1.5 m depending on the distance and target reflectivity
Beam divergence	0.35 mrad
Wave length	1.54 μ m
Measurement rates	10 meas. per min (up to 40 meas. per min with reduced power / range)
Control interface	Serial, Ethernet
Operating voltage	18 - 32Vdc
Power consumption	3 W on standby, 7 W max on measurement
IP rating	IP67, built according to MIL-810
Operating temperature	-32°C + 55°C
Dimensions	172 x 151 x 75 mm with connector
Weight	2 kg

IP Desktop

Professional USB desktop controllers •
non-contacting Hall effect technology



DISTINCTIVE FEATURES

Three axis for PTZ control

USB 2.0 HID compliant “game controller”

12 momentary pushbuttons

Easy to install and operate

Available in two color options



ENVIRONMENTAL SPECIFICATIONS

- Operating Temperature: -25 °C to +85 °C (-13 °F to +185 °F)
- Storage Temperature: -25 °C to +85 °C (-13 °F to +185 °F)
- Sealing: None
- EMC Immunity Level: CE compliant, EMC directive 2004/108/EC, FCC Part 15 Subpart B, Class B
- EMC Immunity Level: CE compliant, EMC directive 2004/108/EC, FCC Part 15 Subpart B, Class B



MECHANICAL SPECIFICATIONS

- Operating Force: 2.8 N (0.63 lbf)
- Maximum Vertical Load: 200 N (45 lbf)
- Maximum Horizontal Load: 200 N (45 lbf)
- Mechanical Angle of Movement: 36° X & Y axis, 60° Z axis
- Expected Mechanical Life: 3 million lifecycles
- Mass/weight: 440 g (0.97 oz)
- Lever Action (centering): Spring



MATERIALS

- Body: ABS
- Shaft: Stainless steel
- Boot: Silicone
- Handle: Glass filled nylon

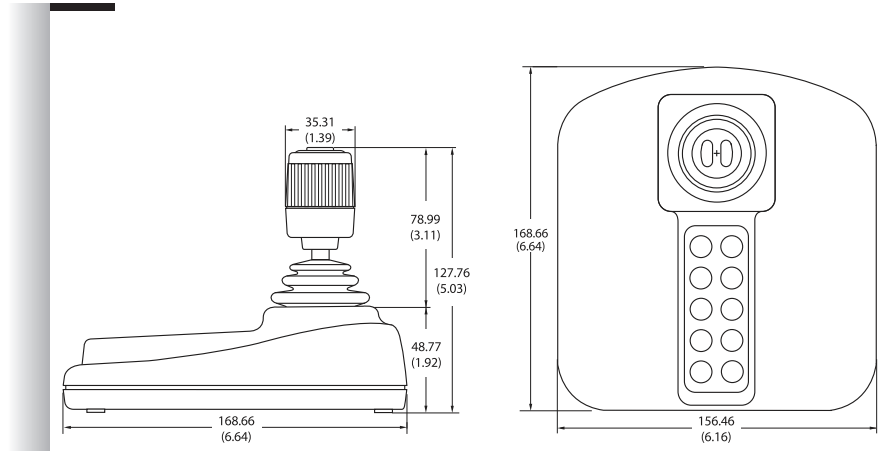
The company reserves the right to change specifications without notice.



IP desktop

Professional USB desktop controllers •
non-contacting Hall effect technology

DIMENSIONS



NOTES:
Dimensions are in mm/(inch).

PART NUMBER



- 100550BLKRFL *(with the push button label)*
- 100550BLKRF *(without the push button label)*

HP Z1 Tower G1i Desktop PC

The most affordable HP Z desktop workstation



Workstation performance is now within reach with a tower built for designing, editing, and gaming. Go beyond a commercial PC with the HP Z1 Tower, delivering pro-level, expandable performance certified for pro-apps, with support for high-end graphics.

Workstation performance. Impressive expandability.

Effortlessly multitask with up to an Intel® Core™ Ultra 9 CPU¹ and 128GB memory². Choose from NVIDIA RTX™, AMD Radeon RX™, or Intel® Arc GPUs³. Easily upgrade memory and storage as work evolves with tool-less access.

Certified for your workflow

Work confidently knowing your HP Z1 Tower is tested and certified for select professional apps. We've worked closely with software providers on apps like AutoCAD®, SOLIDWORKS® and Siemens NX® for seamless workstation performance across your workflow.⁴

Power AI-accelerated workflows

Accelerate AI workflows with the HP Z1 Tower. Iterate and problem solve faster on your local device with up to an NVIDIA RTX™ A1000 GPU³ delivering up to 107 AI TOPS. A built-in NPU⁵ efficiently takes on productivity tasks.

Help protect our shared future.

HP cares about the impact our products have on our people, communities, and planet. That's why this device contains 60% recycled plastics⁶, 20% recycled steel⁷, 100% sustainably sourced outer box packaging⁸, and is EPEAT® Gold with Climate+.⁹



HP Z1 Tower G1i Desktop PC



Windows 11 Pro

Support your unique user needs with the Windows 11 Pro operating system.¹⁰

Intel® Core™ Ultra Processors

Unleash power-efficient performance with up to an Intel® Core™ Ultra 9 CPU. This CPU not only unlocks performance for the next era of AI-enhanced software, but the dedicated NPU greatly increases efficiency for productivity tasks.¹

Graphics

Work seamlessly with choice of graphics: NVIDIA RTX™, AMD Radeon RX™, or Intel® Arc GPUs.¹¹

Memory

High speed memory for near real-time responsiveness with up to fast data transfer speeds of up to 5600 MT/s and up to 128 GB DDR5 memory.²

Storage

Make storage simple with up to 10TB with 3 M.2 storage slots and RAID for added performance and reliability.¹²

Flexible I/O Modules

Configure to the needs of today with flexibility for the future with up to two flexible I/O ports and nine I/O options.¹³

Fast and efficient Wi-Fi 7

The portability of your PC and the reliability of a fast connection determines where you can work. Get a fast and reliable connection in dense wireless environments with gigabit data rate Wi-Fi 7.^{14,15}

Independent Software Vendor Certifications

Work with confidence knowing your workstation is certified by leading software vendors to ensure peak performance even on complex projects.

Protected by HP Wolf Security

HP Wolf Security for Business creates a hardware-enforced, always-on, resilient defense. From the BIOS to the browser, above, in, and below the OS, these constantly evolving solutions help protect your PC from modern threats.¹⁶

Network Connectivity

Connect and collaborate quickly with up to 2.5Gb Ethernet interface.¹⁷

Reliability

Rely on a PC that gives its all, all day long. Experience optimized performance for pro-apps and 360K hours of testing — reliability that gives your workstation the power to cool components so it can keep running.

Thermal Management

Innovatively designed with hardware components like smart fan control and new lattice design venting to keep your PC cool and quiet no matter how hard you push it. Have confidence to run your system at max load.



HP Z1 Tower G1i Desktop PC

Specifications Table

Available Operating Systems	Windows 11 Pro ¹ Windows 11 Pro Education ¹ Windows 11 Home – HP recommends Windows 11 Pro for business ¹ Windows 11 Home Single Language – HP recommends Windows 11 Pro for business ¹ FreeDOS
Processor family^{4,5}	Intel® Core™ Ultra 9 processor (Series 2); Intel® Core™ Ultra 7 processor (Series 2); Intel® Core™ Ultra 5 processor (Series 2)
Available Processors^{3,4,5,36}	Intel® Core™ Ultra 9 285 (1.9 GHz E-core base frequency, 2.5 GHz P-core base frequency, up to 4.6 GHz E-core Max Turbo frequency, up to 5.4 GHz P-core Max Turbo frequency, 36 MB L3 cache, 8 P-cores and 16 E-cores, 24 threads) with Intel® Graphics Intel® Core™ Ultra 7 265 (1.8 GHz E-core base frequency, 2.4 GHz P-core base frequency, up to 4.6 GHz E-core Max Turbo frequency, up to 5.2 GHz P-core Max Turbo frequency, 30 MB L3 cache, 8 P-cores and 12 E-cores, 20 threads) with Intel® Graphics Intel® Core™ Ultra 5 245 (3.0 GHz E-core base frequency, 3.5 GHz P-core base frequency, up to 4.5 GHz E-core Max Turbo frequency, up to 5.1 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 14 threads) with Intel® Graphics Intel® Core™ Ultra 5 235 (2.9 GHz E-core base frequency, 3.4 GHz P-core base frequency, up to 4.4 GHz E-core Max Turbo frequency, up to 5.0 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 14 threads) with Intel® Graphics Intel® Core™ Ultra 5 225 (2.7 GHz E-core base frequency, 3.3 GHz P-core base frequency, up to 4.4 GHz E-core Max Turbo frequency, up to 4.9 GHz P-core Max Turbo frequency, 20 MB L3 cache, 6 P-cores and 4 E-cores, 10 threads) with Intel® Graphics
Neural Processing Unit	Intel® AI Boost
Chipset	Intel® Q870
Product colour	Black
Form factor	Tower
Maximum memory	128 GB DDR5-5600 MT/s ECC Transfer rates up to 5600 MT/s.
Memory slots	4 DIMM
Internal storage	1 TB up to 2 TB SATA HDD ⁷ 256 GB up to 1 TB PCIe® NVMe™ M.2 SSD ⁷ 256 GB up to 2 TB PCIe® NVMe™ TLC M.2 SSD ⁷ up to 512 GB PCIe® NVMe™ SED Opal 2 TLC M.2 SSD ⁷ up to 256 GB PCIe® NVMe™ OPAL 2 M.2 SSD ⁷
Optical drive	HP 9.5 mm Slim DVD-Writer; HP 9.5 mm Slim DVD-ROM
Available Graphics	Integrated: Intel® UHD Graphics 4Xe Intel® UHD Graphics 3Xe Intel® UHD Graphics 2Xe ³⁵ Discrete: Intel® Arc™ A380 Graphics (6 GB GDDR6 dedicated) AMD Radeon™ RX 6300 Graphics (2 GB GDDR6 dedicated) NVIDIA RTX™ A1000 (8 GB GDDR6 dedicated) NVIDIA RTX™ A400 (4 GB GDDR6 dedicated) (Other 3rd Party graphics cards available. Please inquire with your sales specialist or channel partner.)
Audio	Realtek ALC3252 codec, universal audio jack with CTIA and OMTP headset support
Expansion slots	1 M.2 2230; 2 PCIe 3 x1; 1 PCIe 5 x16; 1 PCIe 4 x16; 3 M.2 2280 (1 M.2 2230 slot for WLAN and 3 M.2 2280 slots for storage)
Ports and connectors	Front: 2 USB Type-C® 20Gbps signaling rate; 4 USB Type-A 10Gbps signaling rate; 1 headphone/microphone combo ; Rear: 2 USB Type-A 5Gbps signaling rate; 1 HDMI 2.1; 1 RJ-45; 1 audio line-in/line-out; 3 USB 2.0 Type-A; 2 DisplayPort™ 2.1 ; Optional Ports: Add-on port: 1 serial. Flex IO port 1st – choose one of the following options: 1 DisplayPort™ 2.1, 1 HDMI 2.1, 1 VGA, 1 serial, 1 Dual SuperSpeed USB Type-A 5Gbps signaling rate, 1 SuperSpeed USB Type-C® 10Gbps signaling rate (15W output, DisplayPort™ 1.4), 1 Thunderbolt™ 4., 1 Dual SuperSpeed USB Type-C 10Gbps signaling rate port with 15W power out, 1 1Gbps FiberNIC. Flex IO port 2nd -1 Dual Type-A SuperSpeed USB 5Gbps signaling rate port, 1 Serial.



HP Z1 Tower G1i Desktop PC

Specifications Table

Keyboard	HP 125 Wired Keyboard; HP 655 Wireless Keyboard and mouse combo; HP USB 320K Keyboard; HP USB Business Slim Wired SmartCard CCID Keyboard; HP 125 Black Wired Keyboard; HP 725 Multi-Device Rechargeable Wireless Keyboard and Mouse combo
Mouse	HP Wired Desktop 128 Laser Mouse; HP Wired 320M Mouse; HP 125 Wired Mouse
Communications	LAN: Integrated Intel® I219-LM GbE; Intel® I226-T1 PCIe® 2.5 GbE; WLAN: Intel® Wi-Fi 7 BE200 (2x2) and Bluetooth® 5.4 wireless card, vPro®; Intel® Wi-Fi 7 BE200 (2x2) and Bluetooth® 5.4 wireless card, non-vPro®; Realtek Wi-Fi 6 RTL8852CE 802.11a/b/g/n/ax (2x2) and Bluetooth® 5.3 wireless card;
Drive Bays	External: One slim ODD; Internal: Two 3.5" HDD
Software	Buy Microsoft Office (sold separately); Edge Customization; HP Connection Optimizer ³⁴ ; HP Desktop Support Utilities; HP Documentation; HP Hotkey support; HP UEFI BIOS Certification level 2.7B; HP PC Hardware Diagnostics Windows; HP Privacy Settings; HP Services Scan ³⁰ ; HP Setup Integrated OOB; HP Smart Support ³¹ ; HP Support Assistant ³² ; HSA Fusion for Commercial; HSA Telemetry for Commercial; myHP ²⁵ ; Poly Lens ³³
Security management	HP Sure Admin ¹⁴ ; HP Sure Click ¹² ; HP Sure Run; HP Sure Sense ¹⁸ ; HP Sure Recover ¹⁷ ; HP Sure Start ¹⁶ ; HP Tamper Lock ²⁷ ; Secured-Core PC Enable
Security Software Licenses	HP Wolf Pro Security Edition ⁵⁶
Management features	HP Client Catalog (download); HP Client Management Script Library (download) ¹¹ ; HP Cloud Recovery ²⁶ ; HP Connect for Microsoft Endpoint Manager ⁹ ; HP Driver Packs (download) ⁶ ; HP Image Assistant (download) ²⁴ ; HP Manageability Integration Kit (download) ¹⁰ ; HP Patch Assistant (download)
Power	280 W internal power adapter, up to 92% efficiency, active PFC; 400 W external power adapter, up to 92% efficiency, active PFC; 550 W internal power adapter, up to 92% efficiency, active PFC
Dimensions	13.3 x 12.1 x 6.1 in; 33.7 x 30.8 x 15.5 cm; (Standard tower orientation.); 11.3 x 15.75 x 19.65 in; 28.7 x 40 x 49.9 cm (Package)
Weight	Starting at 12.15 lb; Starting at 5.51 kg; Starting at 16.9 lb; Starting at 7.67 kg (Package) ; (Exact weight depends on configuration.)
Ecolabels	EPEAT® registered with Climate+
Energy star certified	ENERGY STAR® certified
Sustainable impact specifications	Bulk packaging available; Molded paper pulp cushion inside box is 100% sustainably sourced and recyclable; 10% ITE-derived closed loop plastic; 80 Plus® Platinum power supplies available; Contains at least 60% post-consumer recycled plastic; Outside box and corrugated cushions are 100% sustainably sourced or recyclable ^{19,20,21,29}



HP Z1 Tower G1i Desktop PC

Messaging Footnotes

¹ Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering is not a measurement of clock speed. Features and software that require a NPU may require software purchase, subscription or enablement by a software or platform provider, and third-party software may have specific configuration or compatibility requirements. Performance varies by use, configuration, and other factors.

² Memory is an optional feature that must be configured at purchase.

³ Sold separately or as an optional feature.

⁴ Third party software sold separately.

⁵ Features and software that require a NPU may require software purchase, subscription or enablement by a software or platform provider, and third-party software may have specific configuration or compatibility requirements. Performance varies by use, configuration, and other factors.

⁶ Recycled plastic is expressed as a percentage of the total weight plastic. Post-consumer recycled is based on the definition set in the EPEAT standard for computers, IEEE 1680.1-2018 standard.

⁷ Recycled metal is expressed as a percentage of the total weight of the metal according to ISO 14021 definitions for metal parts over 25 grams.

⁸ HP paper and fiber based packaging for PCs, displays, home and office print, and supplies is reported by suppliers as recycled or certified, with a minimum of 97% by volume verified by HP. Packaging is the box that comes with the product and all paper-based materials inside the box. Packaging for personal systems accessories and spare parts is not included.

⁹ Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information.

¹⁰ 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 Pro is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See <http://www.windows.com>

¹¹ Sold separately or as an optional feature.

¹² For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35GB of disk is reserved for system recovery software.

¹³ Optional features that must be configured at purchase or are sold separately.

¹⁴ Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 (802.11BE) functionality requires compatible Windows 11 OS, compatible processor, and separately purchased Wi-Fi 7 router to support backwards compatibility with prior 802.11 specs. Available in countries where Wi-Fi 7 is supported. The specification for 802.11BE is a draft specification and is not final. If the final specification differs from the draft specification, it may affect the ability of the device to communicate with other 802.11BE devices.

¹⁵ Wi-Fi® supporting gigabit data rate is achievable with Wi-Fi 7 (802.11BE) when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 160MHz channels.

¹⁶ HP Wolf Security for Business requires Windows 10 or 11 Pro and higher, includes various HP security features and is available on HP Pro, Elite, Workstation, and RPOS products. See product details for included security features.

¹⁷ Internet access required and not included. Optional networking card not included.

Technical Specifications Footnotes

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. See <http://www.windows.com>.

² Intel vPro® requires Windows 10 Pro 64 bit or higher, a vPro supported processor, vPro enabled chipset, vPro enabled wired LAN and/or Wi-Fi 6E WLAN and TPM 2.0. Some functionality requires additional 3rd party software in order to run. Features of vPro® Essentials and Enterprise vary. See <http://intel.com/vpro>.

³ Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance.

⁴ Features and software that require a NPU may require software purchase, subscription or enablement by a software or platform provider, and third party software may have specific configuration or compatibility requirements. Performance varies by use, configuration, and other factors.

⁵ HP Driver Packs not preinstalled, however available for download at <http://www.hp.com/go/clientmanagement>.

⁶ Supports dual channel memory.

⁷ Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 (802.11BE) functionality requires compatible Windows 11 24H2 OS, compatible processor, and separately purchased Wi-Fi 7 router to support backward compatibility with prior 802.11 specs. Available in countries where Wi-Fi 7 is supported.

⁸ HP Connect for Microsoft Endpoint Manager is available from the Azure Market Place for HP Pro, Elite, Z and Point-of-Sale PCs managed with Microsoft Endpoint Manager. Subscription to Microsoft Endpoint Manager required and sold separately. Network connection required.

⁹ HP Manageability Integration Kit can be downloaded from <http://www8.hp.com/us/en/ads/clientmanagement/overview.html>.

¹¹ HP Client Management Script Library <https://www.hp.com/us-en/solutions/client-management-solutions.html#tab=manageability-tools>.

¹² HP Sure Click requires Windows 10 Pro or higher or Enterprise. See https://bit.ly/2PrLT6A_SureClick for complete details.

¹³ HP BIOSphere Gen6 features may vary depending on the platform and configuration.

¹⁴ HP Sure Admin requires Windows 11, HP BIOS, HP Manageability Integration Kit from <http://www.hp.com/go/clientmanagement> and HP Sure Admin Local Access Authenticator smartphone app from the Android or Apple store.

¹⁵ HP Client Security Manager Gen6 requires Windows and is available on the select HP PCs.

¹⁶ HP Sure Start is available on select HP PCs and requires Windows 10 and higher.

¹⁷ HP Sure Recover is available on select HP PCs and requires Windows 10 or Windows 11 and an open network connection. You must back up important files, data, photos, videos, etc. before using HP Sure Recover to avoid loss of data. Network based recovery using Wi-Fi is only available on select PCs.

¹⁸ HP Sure Sense is available on select HP PCs with Windows 10 Pro, Windows 10 Enterprise, Windows 11 Pro, or Windows 11 Enterprise OS.

¹⁹ Recycled metal is expressed as a percentage of the total weight of the metal according to ISO 14021 definitions for metal parts over 25 grams.

²⁰ Recycled plastic is expressed as a percentage of the total weight plastic. Post-consumer recycled is based on the definition set in the EPEAT standard for computers, IEEE 1680.1-2018 standard.

²¹ HP paper and fiber based packaging for PCs, displays, home and office print, and supplies is reported by suppliers as recycled or certified, with a minimum of 97% by volume verified by HP. Packaging is the box that comes with the product and all paper-based materials inside the box. Packaging for commercial, personal systems accessories, and spare parts is not included.

²² HP Sure Run is available on select HP PCs and requires Windows 10 and higher.

²³ Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information.

²⁴ HP Image Assistant not preinstalled, however available for download at <https://ftp.ext.hp.com/pub/caps-softpaq/cmih/HPiA.html>.

²⁵ myHP requires Windows OS.

²⁶ HP Cloud Recovery is available for Z by HP, HP Elite and Pro desktops and laptops PCs with Intel® or AMD processors and requires an open, wired network connection. Note: You must back up important files, data, photos, videos, etc. before use to avoid loss of data. Detail please refer to: <https://support.hp.com/us-en/document/c05115630>.

²⁷ HP Tamper Lock must be enabled by the customer or your administrator.

²⁸ HP Anyware software and licensing are available through a 1- or 3-year subscription. Network access required. Renewal is required after the subscription term. HP Anyware subscriptions are based on the number of concurrent PCoIP connections used (pay for the number of host connections, not the software) with a minimum order quantity of 5. For a limited time, an HP Anyware Professional subscription also includes access and support for ZCentral Remote Boost and ZCentral Connect and is available for purchase through an HP reseller or contact sales at hp.com/Anyware. ZCentral Remote Boost Sender requires Windows 10 and 11, RHEL/CentOS (7 or 8), or UBUNTU 18.04 or 20.04 LTS operating systems, macOS (10.14 or newer) operating system and ThinPro 7.2 are only supported on the receiver side. ZCentral Connect requires Windows (10 or 11) or Windows Server (2016 or 2019) operating system, Microsoft Active Directory and Intel Active Management Technology for select features. For system requirements and to install HP Anyware and Anyware Manager, refer to the Admin Guides at: <https://docs.teradici.com/find/product/hp-anyware>.

²⁹ Percentage of ocean-bound plastic contained in each component varies by product. Ocean Bound plastic is expressed as a percentage of the total weight plastic. Ocean Bound plastic is based on the definition set by the UL2809 standard.

³⁰ HP Services Scan is provided with Windows Update on select products and will check entitlement on each hardware device to determine if an HP TechPulse-enabled service has been purchased, and will download applicable software automatically. HP TechPulse is a telemetry and analytics platform that provides critical data around devices and applications. For full system requirements or to disable this feature, please visit <http://www.hpdaas.com/requirements>. Not applicable in China.

³¹ HP Smart Support requires the HP Insights agent to be installed. For more information about how to enable or to download HP Smart Support, please visit <http://www.hp.com/smart-support>.

³² HP Support Assistant is available on Windows. For more information, please visit www.support.hp.com/help/hp-support-assistant.

³³ Poly Lens Desktop requires a Windows OS.

³⁴ HP Connection Optimizer requires Windows 10 and Windows 11.

³⁵ UHD content required to view UHD images.

³⁶ Intel vPro® requires Windows 10 Pro 64 bit or higher, a vPro supported processor, vPro enabled chipset, vPro enabled wired LAN and/or Wi-Fi 6E WLAN and TPM 2.0. Some functionality requires additional 3rd party software in order to run. Features of vPro® Essentials and Enterprise vary. See <http://intel.com/vpro>.

³⁷ HP Wolf Pro Security Edition is available preloaded on select SKUs, and, depending on the HP product purchased, includes a license with a term length communicated to you at purchase and in your order confirmation email. The HP Wolf Pro Security Edition software is licensed under the license terms of the HP Wolf Security Software - End-User license Agreement (EULA) that can be found at: https://support.hp.com/us-en/document/ish_3875769-3873014-16 as that EULA is modified by the following: 7. Term. Unless otherwise terminated earlier pursuant to the terms contained in this EULA, the license for the HP Wolf Pro Security Edition is effective upon 4 months after the date the HP Product was shipped by HP and will continue for the term communicated to you at purchase and in your order confirmation email ("Initial Term"). At the end of the Initial Term you may either (a) purchase a renewal license for the HP Wolf Pro Security Edition from HP.com, HP Sales or an HP Channel Partner, or (b) continue using the standard versions of HP Sure Click and HP Sure Sense at no additional cost with no future software updates or HP Support. Notwithstanding the foregoing, the license shall expire no later than one year after the fixed term of the subject license ends.

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May 2025



Technical Specifications

HP Series 5 Pro 23.8" FHD Monitor - 524pf



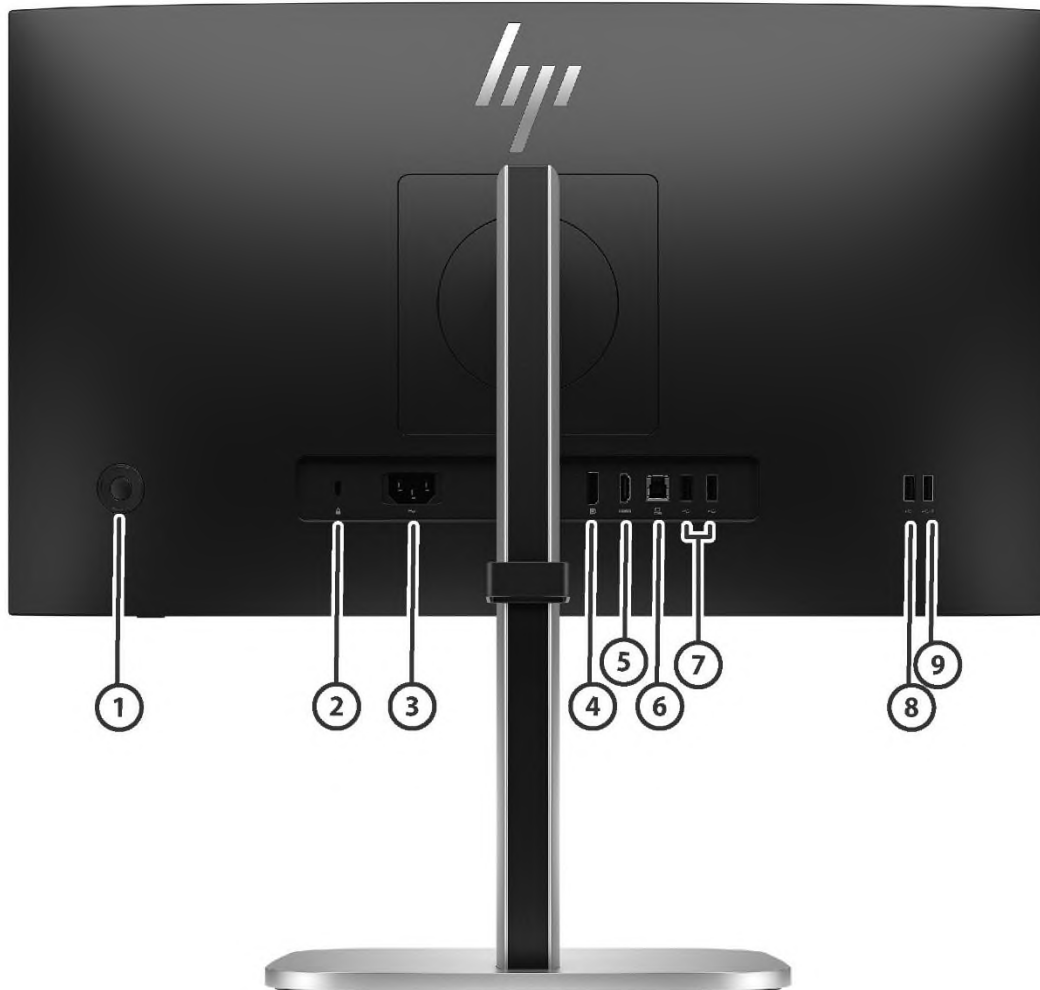
1. Power Button

Front

2. Power LED

Technical Specifications

HP Series 5 Pro 23.8" FHD Monitor - 524pf



Back

1. Joypad OSD button
2. Security Cable Slot
3. Power Connector
4. DisplayPort™ 1.2
5. HDMI 1.4 Port
6. USB-B port
7. 2x SuperSpeed USB Type-A 5Gbps signaling rate
8. SuperSpeed USB Type-A 5Gbps signaling rate
9. SuperSpeed USB Type-A 5Gbps signaling rate (charging)

Technical Specifications


Model: 9D9L6UT

Panel Specifications	Display Size (Diagonal)	60.5 cm (23.8")	
	Viewable Diagonal Size	60.47 cm (23.8")	
	Panel Technology	IPS	
	Curvature	Flat	
	Max Refresh Rate	100 Hz	
	Native Resolution	FHD (1920 x 1080)	
	Panel Bit Depth	8 bit (6 bit + FRC)	
	Aspect Ratio	16:9	
	Brightness (Typical)	350 nits	
	Display Contrast Ratio (Static)	1500:1	
	Display Contrast Ratio (Dynamic)	10000000:1 = 10M:1	
	Flicker Free	Yes	
	Pixel Pitch	0.2745 x 0.2745 mm	
	Pixels Per Inch (PPI)	93 PPI	
	Display Colors	Up to 16.7 million colors supported <i>*Number of colors through A-FRC technology.</i>	
		Backlight Lamp Life Minimum (To Half Brightness - In Hours)	30,000 hours
		Backlight Type	Edge-lit, WLED
		Screen Treatment	Anti-glare
		Hardness	3H
		Haze	25%
	Response Time (Typical)	5ms GtG (with overdrive)	
	Horizontal Viewing Angle (Typical Cr>10)	178°	
	Vertical Viewing Angle (Typical Cr>10)	178°	
	Panel Active Area Metric (W X H)	52.70 x 29.65 cm	
	Panel Active Area Imperial (W X H)	20.75x11.67 in	
	NOTE: Performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.		
Color	sRGB	100%	
Color Management	Color Space	RGB 4:4:4, YCBCR 4:4:4, YCBCR 4:2:2	
	RGB Channel Adjust	Yes, Gain	
	Default Color Temperature	Neutral (6500K)	
Monitor Specifications	Bezel Type	3-sided borderless	
	Color Of Stand	Black and Silver	
	Color Of Head	Black	
	Tilt	-5 to +23°	
	Swivel	±45°	
	Pivot	±90	
	Height Adjust Range	150 mm	
	Vesa Mounting	100mm x 100mm	
	Security Lock	Security lock-ready	

Technical Specifications

	Detachable Stand	Yes
	Warranty	3/3/0 for AMS, EMEA, APJ (3/3/3 in select APJ countries)
	Low Blue Light	Yes, HP Eye Ease (TÜV Low Blue Light Hardware Solution certified)
	Zero Bright Dot Guarantee	No* *The HP Pixel Policy allows no bright sub-pixel defects for this display. For complete details, see http://support.hp.com/us-en/document/c00288895 .
	Management Software	HP Client Management Script Library*, HP Display Center** *The Client Management Script Library must be downloaded to the connected PC to run CMSL commands. Some limitations may apply to legacy displays. Visit support.hp.com to download **Host PC requires Windows 10 and above. HP Display Center is available on the Microsoft store.
On Screen Display (OSD)	On Screen Display	Brightness+, Color, Input, Image, Power, Menu, Management, Information, Exit
	Native Resolution	FHD (1920 x 1080)
	Maximum Resolution	FHD (1920 x 1080 @ 100 Hz)
	Preset Graphic Modes/Supported Resolutions	640 x 480 @ 60Hz 640 x 480 @ 75Hz 720 x 400 @ 70 Hz 720 x 480 @ 60Hz 720 x 576 @ 50Hz 800 x 600 @ 60 Hz 800 x 600 @ 75 Hz 1024 x 768 @ 60 Hz 1024 x 768 @ 75 Hz 1280 x 720 @ 50 Hz 1280 x 720 @ 60 Hz 1280 x 720 @100 Hz 1280 x 800 @ 60 Hz 1280 x 1024 @ 60 Hz 1280 x 1024 @ 75 Hz 1440 x 900 @ 60 Hz 1600 x 900 @ 60 Hz 1680 x 1050 @ 60 Hz 1920 x1080 @ 50Hz 1920 x 1080 @ 60 Hz 1920 x 1080 @ 75 Hz 1920 x 1080@ 100 Hz
	Minimum Vertical Scan Rate	50 Hz
	Maximum Vertical Scan Rate	100 Hz
	Minimum Horizontal Scan Rate	30 kHz
	Maximum Horizontal Scan Rate	120 kHz
	Maximum Pixel Clock	300 MHz
	User Programmable Modes	Yes, 18

Technical Specifications

	User-Assignable Function Buttons	Yes, 4 (6 options)
	Languages	11 (English, Spanish, German, French, Italian, Netherlands, Portuguese, Japanese, T-Chinese, S-Chinese and Russian)
Connector Types	DisplayPort™	1 DisplayPort™ 1.2
	HDMI	1 HDMI 1.4
	HDCP	Yes, DisplayPort™ and HDMI
	USB-Type-A	4 SuperSpeed USB Type-A 5Gbps signaling rate (1 charging)
	USB-B (Hub enablement)	1 USB-B
Special Features	Switch	Monitor Power button Next Active Input / Up button Information / Down button Brightness / Left button Color / Right button Menu / Enter button
	User Presets	18
	User Updateable Firmware	Yes
Power & Operating Specs	Power Supply	Internal
	Power Source	100 – 240 VAC 50/60 Hz
	Power Consumption- Max	58 W
	Energy Saving/Stand By Mode	0.5 W
	Power Consumption - Typical	22 W
Energy Star Data	Operational Mode at 100 VAC	11.6 W
	Operational Mode at 115 VAC	11.5 W
	Operational Mode at 230 VAC	12.7 W
EU Energy Efficiency Class (ErP LOT-5)	On-mode Power Consumption for Standard Dynamic Range (SDR)	12 W
	ErP LOT5 Energy Efficiency Class for Standard Dynamic Range (SDR)	
Operating Conditions	Operating Temperature - Celsius	5~35°C
	Operating Temperature - Fahrenheit	41– 95°F
	Non-Operating Temperature - Celsius	-40 – 65°C
	Non-Operating Temperature - Fahrenheit	-4 – 149°F
	Operating Humidity	20 – 80% Relative Humidity (non-condensing)
	Non-Operating Humidity	5~95%RH
	Operating Altitude Metric	0~5,000m
	Non-operating Altitude Metric	0~12,192m
	Operating Altitude Imperial	0~16,400ft
	Non-operating Altitude Imperial	0~40,000ft
Certifications and	Low Halogen	Yes*

Technical Specifications

Compliances

Agency Approvals and Certifications

Microsoft WHQL Certification

ENERGY STAR® Certified

EPEAT® Registered

Regions need to verify by country

* External power supplies, WWAN modules, power cords, cables and peripherals excluded. Service parts obtained after purchase may not be Low Halogen.

WW application

CB/KC/NOM/TUV-S/ISO 9241-

307/EAC/cTUVus/PSB/ISC/CCC/CECP/SEPA/TCO/TCO

Certified Edge/GS/TUV HW

LBL/UAE/Ukraine/BIS/NRCS/CE/FCC/VCCI/BSMI/EMF/KCC/I

CES/RCM/Australian-New Zealand DoC/Energy Star/Korea

MEPS/Ukraine EE/CEL/California CEC/WEEE/PSE/TGM

Windows 11 (x64 only), Windows 10 (x64 only)

Yes

EPEAT® Gold in United States*

EPEAT® registered with Climate+

*EPEAT® Gold

NOTE: Based on US EPEAT® registration according to IEEE

1680.1-2018 EPEAT®. Status varies by country. Visit

www.epeat.net for more information.

China Energy Label

TCO Certified Edge

TCO Certified

SmartWay Transport Partnership - NA only

CEL Grade 2

Yes

Yes

Yes (NA sku)

Contains Recycled Materials

Recycled Plastics

85% ITE-derived closed loop plastic*

Contains Ocean-Bound Plastic**

*Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard

** All plastic parts contain ocean-bound plastic. Percentage of ocean-bound plastic contained in each component varies by product.

Recycled Metal

At least 30% recycled metal*

* Recycled metal is expressed as a percentage of the total weight of the metal according to ISO 14021 definitions for metal parts over 25 grams.

Recycled Glass

20% recycled glass*

* Percentage of recycled glass in the monitor panel varies by product. Recycled glass is expressed as a percentage of the total weight of the glass.

Recyclable Packaging (Box, packing materials)

Outside Box and corrugated cushions are 100% sustainably sourced and recyclable* & Molded Paper Pulp Cushion inside box is 100% sustainably sourced and recyclable**

*100% outer box packaging and corrugated cushions made from sustainably sourced certified and recycled fibers.

Technical Specifications

**Molded pulp cushions contains 100% recycled wood fiber and organic materials.

	Metric	Imperial	
Unit Product/Package Specifications	Product Dimensions (Unpacked with stand) (W x D x H)	53.94 x 18.95 x 50.32 cm	21.24 x 7.46 x 19.81 in
	Product Dimensions (Packed) (W x D x H)	62.1 x 14.0 x 39.3 cm	24.45 x 5.51 x 15.47 in
	Display Head Dimensions (Unpacked without stand) (W x D x H)	53.94 x 4.72 x 31.43 cm	21.24 x 1.86 x 12.37 in
	Base Area Footprint (w x d mm)	242 x 189.50 mm	9.53 x 7.46 in
	Bezel Measurements	Top: NA	Top: NA
		Sides: NA	Sides: NA
		Bottom: 9.25	Bottom: 0.37
	Product Weight (Unpacked with stand)	4.9 kg	10.8 lb
	Product Weight (Packed)	7.2 kg	15.9 lb
	Product Weight (Head Only)	3.4 kg	7.6 lbs
Pallet Information	Pallet Dimensions (L x W x H mm)	Slip Sheet: 1128 x 629 x 1978 mm (20' ft & 40' ft)	Slip Sheet: 44.41 x 24.76 x 77.87 inch (20' ft & 40' ft)
		Slip Sheet: 1128 x 629 x 2372 mm (40' HQ)	Slip Sheet: 44.41 x 24.76 x 93.39 inch (40' HQ)
		Pallet: 1128 x 629 x 2106 mm (20' ft & 40' ft)	Pallet: 44.41 x 24.76 x 82.91 inch (20' ft & 40' ft)
		Pallet: 1128 x 629 x 2499 mm (40' HQ)	Pallet: 44.41 x 24.76 x 98.39 inch (40' HQ)
	Pallet Total Weight	Slip Sheet: 292.5 kg (20' ft & 40' ft)	Slip Sheet: 644.8 lbs (20' ft & 40' ft)
		Slip Sheet: 350.6 kg (40 HQ)	Slip Sheet: 772.9 lbs (40' HQ)
		Pallet: 302.5 kg (20' ft & 40' ft)	Pallet: 666.9 lbs (20' ft & 40' ft)
	Pallet Layers	Pallet: 360.6 kg (40 HQ)	Pallet: 795.0 lbs (40' HQ)
		Slip Sheet: 5 layers (20' ft & 40' ft)	
		Slip Sheet: 6 layers (40' HQ)	
Pallet Product per Layer	Pallet: 5 layers (20' ft & 40' ft)		
	Pallet: 6 layers (40' HQ)		
Total Products per Pallet	8 per layer (slip sheet)		
	8 per layer (pallet)		
Container Load, 20-Foot	Slip Sheet: 40 sets (20' ft & 40' ft)		
	Slip Sheet: 48 sets (40' HQ)		
Container Load, 40-Foot	Pallet: 40 sets (20' ft & 40' ft)		
	Pallet: 48 sets (40' HQ)		

Technical Specifications

Container Load, 40-Foot HighQ	1824 sets (slip sheet) 1824 sets (pallet)
--------------------------------------	--

What's in the box?	AC power cord (1.83m) 5.9ft HDMI 1.4 cable (1.8m) 5.9 ft USB 3.0 B-A cable (1.8m) DisplayPort™ 1.2 cable (1.8m) Warranty Quick Setup Poster
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User Guide and Warranty Languages	User Guide Languages	Arabic, Bahasa Indonesia, Bulgarian, Chinese-S, Chinese-T, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Kazakh, Korean, Latvian, Lithuanian, Norwegian, Polish, Portuguese (Brazilian), Portuguese (Iberian), Romanian, Russian, Serbian, Slovak, Slovenian, Spanish, Swedish, Thai, Turkey, Ukrainian
	Warranty Languages	English US (EN), English AP (EN-AP), English LA (EN-LA), English UK (EN-GB), Arabic (AR) -17x, Bahasa Indonesia (ID), Bosnian (BS), Bulgarian (BG), Chinese-S (CN), Chinese-T (TW), Croatian (HR), Czech (CS), Danish (DA), Dutch (NL), Estonian (ET), Finnish (FI), French Canadian (FC), French European (FR), German (DE), Greek (EL), Hebrew (HE), Hungarian (HU), Italian (IT), Japanese (JA), Kazakh (KK), Korean (KO), Latvian (LV), Lithuanian (LT), Norwegian (NO), Polish (PL), Portuguese, Brazilian (BR), Portuguese, Iberian (PT), Romanian (RO), Russian (RU), Serbian (SR), Slovak (SK), Slovenian (SL), Spanish, Castilian (ES-ES), Spanish, Latin America (ES-MX), Swedish (SV), Thai (TH) Turkish (TR), Ukrainian (UK), Vietnamese (VI)

Technical Specifications

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Summary

Change Log			
November 22, 2024	V1 to V2	Updated Added	Management Software Section Certification Section
	V2 to V3		
	V3 to V4		



dat con

SovaN

Software Datasheet - Technical

SovaN Software Datasheet

Introduction

SovaN is an advanced command-and-control software designed for surveillance, reconnaissance, and security operations. The system integrates thermal and daylight camera technologies with Laser Range Finder (LRF) devices mounted on 360° Pan-Tilt units, offering extensive situational awareness and operational control.

Minimum System Requirements

To ensure optimal performance, the following **minimum** system specifications are recommended:

- **Operating System:** Windows 7
- **Processor:** CPU Benchmark 8000
- **Memory:** 8 GB RAM
- **Graphics:** GPU not specifically required, but recommended
- **Storage:** HDD 7GB + recordings, usually 10GB

Key Features

- AD Login
- Multi-location support
- Master-Observer management
- Dual-camera set up
- Recording, snapshots
- Zoom synchronization
- Full device control and all of its features like heaters and wipers and defog options
- Picture in picture window fully movable and resizable
- Zoom and focus control with settable speed for each
- Zoom and focus dual speed on shift key
- Control of secondary – not observed camera with shift key
- Autofocus control with different modes
- Full Slew to cue support with automatic lens setting and autofocus after slew to cue
- Up to 16x16 digital zoom
- Video tracking and object detection
- Crosshair on display with option of movement and colour selection
- Automatic slew to cue operation, auto zoom and focus features based on calibrated cameras
- Device communication display
- Computer overload information
- System information display
- Full laser range finder capabilities
- 360 panoramic image option and navigation by panoramic image
- Alarm management based on target detection
- Auto patrol features based on movement teaching
- Preset options and autopay presets
- Built in test to determine device operation
- Supports devices such as camera, lenses, jammers, lasers, GNSS information etc.
- Full system calibration on single POI, multiple POI, gyro, GNSS, depending on equipment and scenario
- Keyboard, joystick, mouse, touchscreen, tablet control
- Video enhancement

Software Licensing

- **Permanent License:** Unlimited access tied to original hardware.
- **Time-Limited (Trial) License:** Temporary access with hardware locking. Notifications are provided at startup regarding license validity.

Privacy and Data Protection

SovaN complies with **EU GDPR standards** to ensure user data protection. Dat-Con offers GDPR-compliant **Data Processing Agreements** and implements **Standard Contractual Clauses** for data transfers outside the EEA.

Installation & Setup

- **Installation:** Includes a step-by-step wizard for installation, account setup, and initial configuration.
- **Network Configuration:** Supports dynamic IP management and configuration of multiple subnets from a single interface.
- **Firewall Settings:** Pre-configured firewall settings for seamless device communication.
- **License Integration:** The **GetPCInfo** tool simplifies license activation.

Support & Documentation

- **User Manual:** Comprehensive guide covering installation, setup, feature utilization, and troubleshooting.
- **Technical Support:** Available through Dat-Con for any software-related inquiries.

Company Information

- **Developer:** Dat-Con d.o.o.
- **Website:** <https://www.dat-con.com/>
- **Contact Information:** info@dat-con.si

SovaN is your trusted partner for advanced observation and reconnaissance, engineered to meet the highest standards of performance and security.



dat con

GIS

Software Datasheet - Technical

GIS Software Datasheet

Introduction

GIS is an advanced Geographic Information System application designed to provide comprehensive situational awareness by displaying a map with all detected surveillance platforms and targets. These elements are represented as various types of points, and their presentation can be tailored to the user's specific requirements.

Minimum System Requirements

To ensure optimal performance, the following **minimum** system specifications are recommended:

- **Operating System:** Windows 7
- **Processor:** CPU Benchmark 8000
- **Memory:** 8 GB RAM
- **Graphics:** GPU not specifically required, but recommended
- **Storage:** HDD 7GB + recordings and maps, usually 50GB

Key Features

General

- AD Login
- SMS Report
- Performance monitors
- Mission planning
- Asset management
- Device management
- BIT test and device overview
- Slew 2 cue
- Slew to cue closest
- 3D slew to cue
- Automatic Slew to cue
- Target zones (alarm, ignore, hide)
- Target zone programming for target types and sensor types
- Map drawing
- Any image as static mark
- Alarms
- Data recording and playback
- Device list
- Data export
- Email report
- Vulnerability analysis
- Snapshots
- Viewport calculation based on terrain model
- Closest Static mark calculation
- Measure range, slant range, bearing and elevation to points on map from SP
- Night mode
- Map viewport streaming
- Target trails
 - Black listing
 - Target list, target summary, target Data Fusion
 - Whitelist target
 - Target data classification based on movement analysis
 - Extensive target logging at nanosecond timestamp
- Search for targets, places, descriptions
- Touch screen support
- Tablet support
- Support for standard radar interfaces

External communication

- Support for 3rd party surveillance platforms through network access
- Support for 3rd party Sensors through network access

Maps

- Raster
- S57
- S63
- Elevation data HGT
- 3-D Map navigation
- Map Presets
- Static marks
- Map layer management
- Map navigation
- Angle, distance area measurements
- WMS GeoServer
- WMTS GeoServer
- MAP Ratio Scale
- Map selection on GIS start, to only load maps relevant to your area and not everything
- Map downloading directly from UI - pre-download maps for mission based on area of operation
- Import any image as static map

Software Licensing

- **Permanent License:** Unlimited access tied to original hardware.
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