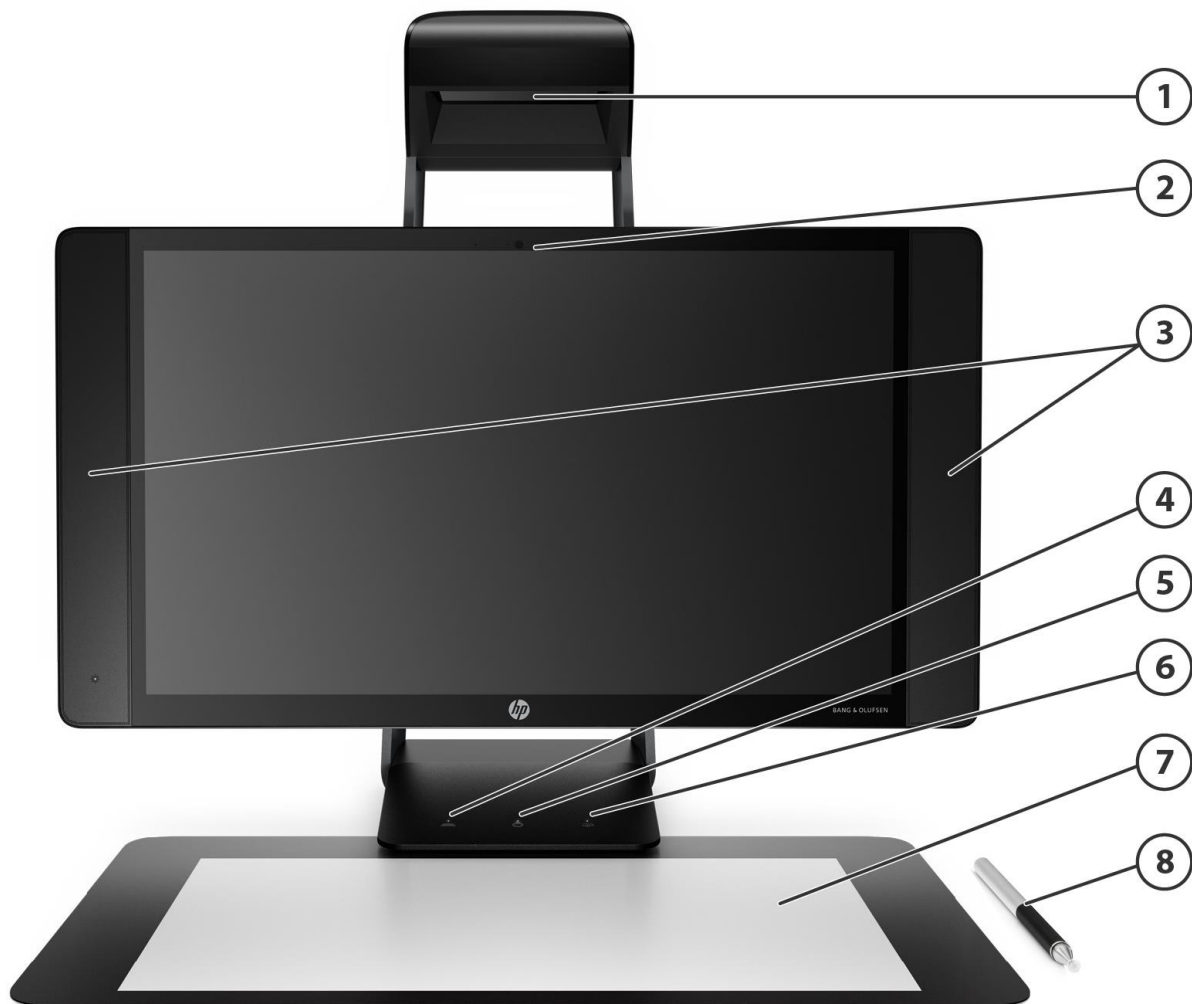


Overview

Sprout Pro by HP G2



Front View

- | | |
|---|--|
| 1. HP Illuminator: includes Sprout 3D Capture Module and 14 Megapixel hi-res camera | 5. Sprout Connector control: Home (launcher) |
| 2. Web camera | 6. Sprout Connector control: Touch/projector enable/ disable |
| 3. Speakers | 7. HP Touch Mat |
| 4. Sprout Connector control: Input WorkTool | 8. HP Active Pen with App Launch |

Overview



Back View

1. Headphone/microphone combo jack (below display)
2. HP 3-in-1 Media reader (below display)
3. Audio line-out
4. RJ45 Gb Ethernet port
5. HDMI 2.0 out
6. USB Charging ports (4)
7. Hi-res DLP projector column

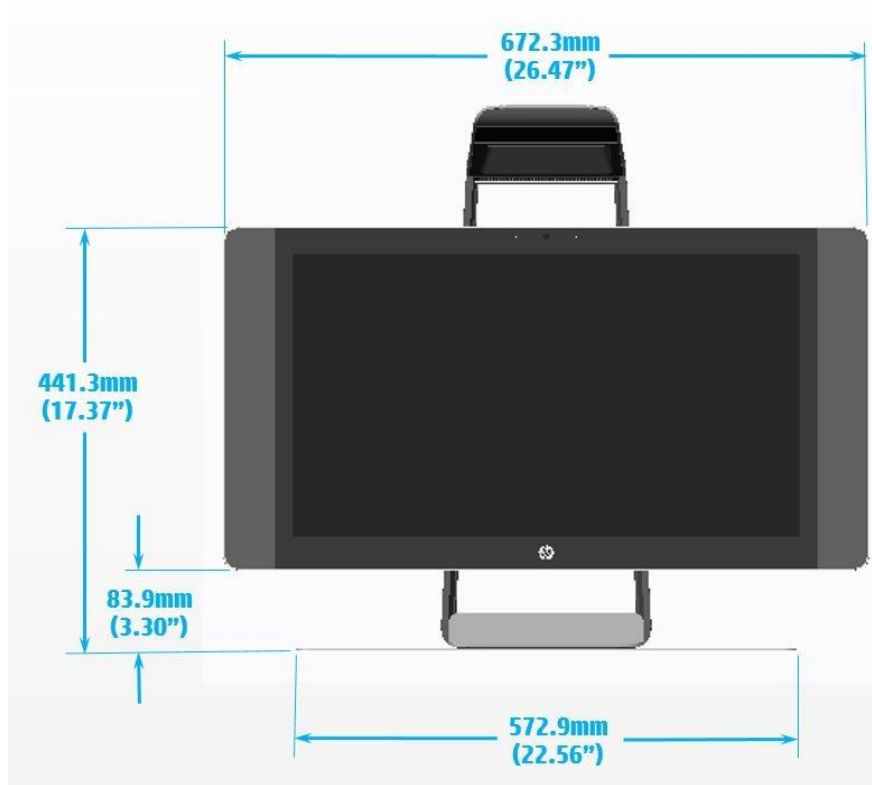
Overview

Form Factor	All in One
Operating Systems	Preinstalled: Windows 10 Pro 64-bit Note: 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 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for update. See http://www.windows.com
Available Processors	Intel® Core™ i7-7700T 2.9G 8M 35W CPU* Notes: Processor numbers differentiate features within each processor family, not across different processor families. See: http://www.intel.com/products/processor_number/ for details. *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 higher performance.
Color	Black
Bottom I/O	1 Headphone/ Microphone combo jack 1 SD Media Slot
Internal I/O	N/A
Rear I/O	4 USB 3.0 ports (USB charging) 1 HDMI 2.0 output from Intel® HD graphics 1 GB Ethernet port 1 Audio Line-out
Media Card Reader	HP 3-in-1 Media Card Reader - Supports SD, SDHC, SDXC
Chassis Dimensions	Unpackaged, with HP Touch Mat docked: Height: 22.4" (56.8 cm) Width: 26.5" (67.2 cm) Depth: 23.1" (58.6 cm) Packaged: Height: 27.1" (68.8 cm) Width: 32.0"(81.3 cm) Depth: 15.6" (39.7 cm)
Weight	Unpackaged: 28.3 lb. / 12.8 kg. Packaged: 44.3 lb. / 20.1 kg.
Power Supply	350W Power Supply 85% Efficiency
Chipset	Intel® H170 Express chipset

Overview

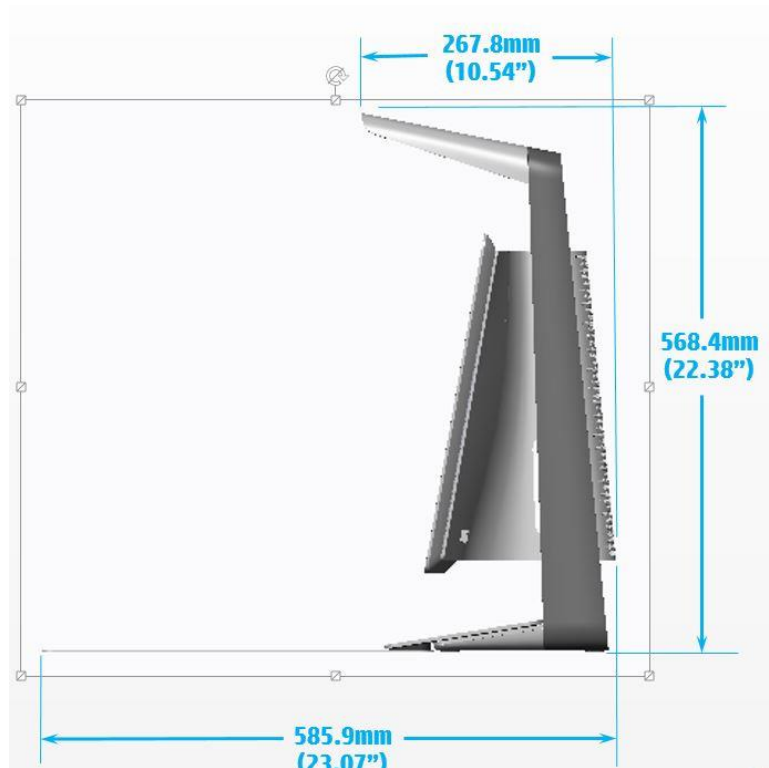
Memory	16GB DDR4-2400 SODIMM (2x8GB) RAM; Maximum 32GB (2x16GB)
Memory disclaimers	Note: Transfer rates up to 2400 MT/s
HP Touch Mat	21.3" diagonal, 20-point touch and stylus (HP Active Pen)-enabled mat with an ultra-resistant top coating
HP High Resolution Camera	14.6 Megapixel, downward facing camera
Stylus	HP Active Pen with App Launch
Web Camera	HP High Definition 2MP Webcam
Integrated Display	23.8" diagonal, 10-point touch-enabled, Full HD (1920x1080) Wide Viewing Angle, White LED backlit LCD Display
Horizontal Display	Projected display using DLP projector with 1920x1280 resolution adjusted for Keystone correction; max resolution 73 ppi;
3D Camera	HP Sprout 3D Capture Module
Desktop Footprint	Width: 26.5" (67.2 cm) Depth: 23.7" (58.6 cm)

Overview



Sprout Pro G2 front view dimensions

Overview



Sprout Pro G2 side view dimensions

Supported Components

Processors	7th generation Intel® Core™ processor family	Factory Configured	Option Kit	Supported Multi
	Intel® Core™ i7-7700T 2.9 2400 4C CPU	Y	N	N
Monitors / Displays	23.8" diagonal, 10-point touch-enabled, Full HD (1920x1080) Wide Viewing Angle, White-LED backlit LCD Display			
	21.3" diagonal Touch Mat with 20-point touch-enabled display			
	Note: High-definition (HD) content is required to view high definition images.			
SATA SSDs		Factory Configured	Option Kit	Supported Multi
	512GB** 2.5" SATA 6Gbps SSD*	Y	N	N
	Notes **For storage drives, TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35GB of system disk is reserved for system recovery software.			
PCIe SSDs		Factory Configured	Option Kit	Option Kit Part Number
	Sprout Pro Storage Devices			
	256GB** M.2 2280 NVMe PCIe SSD	N	Y	N2N00AA
	512GB** M.2 2280 NVMe PCIe SSD	N	Y	N2N01AA
	**For storage drives, TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35GB of system disk is reserved for system recovery software.			
Hard Drive Controllers	Integrated SATA 6.0 Gb/s Controller		Y	N

Supported Components

		Factory Configured	Option Kit	Supported Multi
Graphics	Integrated Intel® HD Graphics			
	Intel® HD 630 Graphics ¹	Y	N	1
	Mid-range 3D			
	NVIDIA® GeForce® GTX 960M	Y	N	1
Note 1: Part of the total system memory (RAM) is used for graphics/video performance. System memory dedicated to graphics/video performance is not available.				
Memory	DDR4-2400 non-ECC Unbuffered SODIMMs - CTO			
	HP 16GB (2x8GB) DDR4-2400 nECC RAM	Y		N
AMO	DDR4-2400 ECC and non-ECC Unbuffered SODIMMs - AMO			
	HP 16GB (1x16GB) DDR4-2400 SODIMM*	N	Y	Z9H53AA
* For use as a pair (2x16GB) to configure system memory of 32GB				
Multimedia and Audio Devices	Sprout Pro by HP Audio components			
	Audio by Bang and Olufsen			
	Conexant CX9001 HD audio codec		Y	N
	High quality stereo speakers with 4W/channel		Y	N
	Dual digital MEMS microphones		Y	N
Optical and Removable Storage	HP 3-in-1 Media Card Reader			
Networking and Communications	Integrated Intel Ethernet Connection I219-V (Gigabit)		Y	N
	Intel® Dual Band Wireless-AC 8260 802.11ac/a/b/g/n dual-band NIC w/ Bluetooth® 4.2		Y	N

Note 1: "Gigabit" Ethernet indicates compliance with IEEE standard 802.3ab for Gigabit Ethernet, and does not connote actual operating speed of 1 Gb/sec. For high speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

Note 2: Wireless access point and Internet service required and not included. Availability of public wireless access points limited. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the workstation to communicate with other 802.11ac WLAN devices. Actual speeds may vary.

		Factory Configured	Option Kit	Option Kit Part Number
Input Devices	HP Active Pen with App Launch	Y	Y	T4Z24AA
	HP Comfort Grip Wireless Mouse	Y	Y	H2L63AA
	HP Wireless (Link-5) Keyboard	Y	Y	T6U20AA
Other Hardware	DLP Projector	Y	N	
	HP High-Resolution Camera (downward facing)	Y	N	
	HP Sprout 3D Capture Module	Y	N	

Supported Components

	HP touch mat	Y	N	
	Sprout by HP 3D Capture Stage Z4C03AA (localized)	N	Y	
Software	Factory Configured	Option Kit	Factory Configured	Support Notes
	WorkTools	Y	N	
	HP PC Hardware Diagnostics UEFI	Y	N	
	Discover HP TouchPoint Manager	Y	N	
	HP ePrint Driver ¹	Y	N	Note 1
	<ol style="list-style-type: none"> 1. Requires an internet connection to HP web-enabled printer and HP ePrint account registration (for a list of eligible printers, supported documents and image types and other HP ePrint details, see http://www.hp.com/go/eprint) 			
Operating Systems	Windows 10 Pro 64			

System Technical Specifications

SYSTEM BOARD

System Board Form Factor	Custom
Processor Socket	Single LGA 1151
CPU Bus Speed	Intel® DMI (Gen 3)
Chipset	Intel® H170 Express PCH-H
Memory Expansion Slots	2 DDR4 memory slots
Memory Type Supported	DDR4, SODIMM (Unbuffered), non-ECC
Memory Modes	Non-Interleaved for single channel. Interleaved when both channels are populated.
Memory Speed Supported	2400 MT/s DDR4
Maximum Memory	32GB
Memory Configuration (Supported)	8GB and 16GB non-ECC unbuffered SODIMMs are supported, as either 2x 8GB or 2x 16GB configurations.

Supported Drive Interfaces	SATA	Integrated (1) Serial ATA interfaces (6Gb/s SATA).
	Serial Attached SCSI	None
	Integrated Graphics	Intel® HD Graphics 630 Based on Unified Memory Architecture (UMA)- A region of system memory is reserved and dedicated to the graphics display. Support for Microsoft DirectX 12, OpenGL 5.0 and OpenCL 2.1 1 HDMI 2.0a graphics port; Max. resolution supported: • 4096x2304 @60Hz (HDMI 2.0a port only)
	Network Controller	Integrated Ethernet PHY Connection I219-V. Management capabilities: WOL, PXE 2.1 Intel® Dual Band Wireless-AC 8260 NIC. Supports the following radio technologies: • 802.11abgn+ac MIMO 2x2 • Bluetooth® 4.2
	External SATA(eSATA)	No
	IDE connector	No
	Floppy connector	No
	Serial	No
	2nd Serial	No
	Parallel	No
	CD-ROM input (Audio)	No
	AUX input (Audio)	No

IEEE 1394 Connector(s)

System Technical Specifications

USB Connector(s)	Rear	4 USB 3.0 (USB charging)
	Internal	N/A
HD Integrated Audio	Yes	
Flash ROM	Yes	
Chassis Fan Header	Not applicable	
CMOS Battery Holder - Lithium	Yes	
Integrated Trusted Platform Module	Infineon SLB9670 discrete TPM Specification Version 2.0	
Power Supply Headers	Yes	
Power Switch, Power LED & Hard Drive LED Header	Rear power switch Front power LED Rear hard drive activity LED	
Clear Password Jumper	Yes	
Keyboard/Mouse	Wireless	
	350W, 85% efficiency, wide-ranging, active PFC Power Supply	
Operating Voltage Range	90-264 VAC	
Rated Voltage Range	100–240 VAC	
Rated Line Frequency	50-60 Hz	
Operating Line Frequency Range	47–63 Hz	
Rated Input Current	4A @ 100-240V	
Heat Dissipation		
ENERGY STAR® qualified (Config Dependent)	Yes	
FEMP Standby Power Compliant	Yes, with Wake-on-LAN disabled: <1W in S5- Power Off	
Built-in Self-Test (BIST) LED	No	
Surge Tolerant Full Ranging Power Supply (withstands power surges up to 2000V)	Yes	
ErP Lot 6- Tier 2 Compliance @ 230V (<0.5W in S5- Power Off)	Yes	
Declared Noise Emissions (Entry-level and High-end configurations)		

System Technical Specifications

System Configuration (Entry level)

System Configuration (High-end)

Environmental Requirements

Temperature	Operating: 41° to 95° F (5° to 35° C) Non-operating: -22° to 140° F (-30° to 60° C)
Humidity	Operating: 10% to 80% RH, at 26° C, non-condensing
Maximum Altitude	Unpressurized: Operating: 6,561 ft (2,000 m) Storage: 15,000 ft (4,572 m)
Cooling	Above 5,000 ft (1524 m) altitude, maximum operating temperature is de-rated by 1.8° F (1° C) per 1,000 ft (305 m) elevation increase

Physical Security and Serviceability

Access Panel	Left and right rear cover removal and attach are tool-less. Access to the storage drives, memory and other components including system board requires tools.
System Board	Screw-In
Configuration Record SW	Yes
Over-Temp Warning on Screen	Yes
Dual Function Rear Power Switch	Yes, causes a fail-safe power off when held for 4 seconds
Cable Lock Support	Yes, Kensington Cable Lock (optional): Locks side cover and secures chassis from theft 3 mm x 7 mm slot at rear of system
Serial, Parallel, USB, Audio, Network, Enable/Disable Port Control	Yes, enables or disables USB, audio, and network ports
Power-On Password	Yes, prevents an unauthorized person from booting up the workstation
Setup Password	Yes, prevents an unauthorized person from changing the workstation configuration

System Technical Specifications

NIC LEDs (integrated) (Green & Amber)	Yes
CPUs and Heatsinks	A T-15 Torx or flat blade screwdriver and a Philips 0PH screwdriver is needed to remove the CPU/GPU thermal solution before the CPU can be removed. CPU removal is tool-less via LGA1151 socket.
Power Supply Diagnostic LED	Yes
Rear Power Button	Yes, ACPI multi-function
Front Power LED	Yes, white
Rear Hard Drive Activity LED	Yes, white
Internal Speaker	Yes, 4W/channel stereo speakers
System/Emergency ROM Flash Recovery	Recovers corrupted system BIOS.
Cooling Solution	Air cooled forced convection
CPU Heatsink Fan	Not applicable- Main blower is part of CPU/GPU thermal solution.
Chassis Fan	Not applicable. Main blower operates as the chassis fan.
Memory Heatsink Fan	No
HP PC Hardware Diagnostics UEFI	HP PC Hardware Diagnostics (UEFI) enables hardware level testing outside the operating system on many components. The diagnostics can be invoked by pressing F2 at POST, and is available as a download from HP Support.
Access Panel Key Lock	No
ACPI-Ready Hardware	Advanced Configuration and Power Management Interface (ACPI). <ul style="list-style-type: none"> • Allows the system to wake from a low power mode. • Controls system power consumption, making it possible to place individual cards and peripherals in a low-power or powered-off state without affecting other elements of the system
Trusted Platform Module Chip	Yes
Integrated Chassis Handles	No
Power Supply	Not user-serviceable or removable
Flash ROM	Yes
Diagnostic Power Switch LED on board	No

System Technical Specifications

Clear Password Jumper	Yes
Clear CMOS Jumper	Yes, jumper
CMOS Battery Holder	Yes
DIMM Connectors	Yes

BIOS

PCI 3.0 Support	Full BIOS support for PCI Express through industry standard interfaces.
BIOS Power On	Users can define a specific day-of-week and time for the system to power on.
ROM Based Computer Setup Utility (F10)	Review and customize system configuration settings controlled by the BIOS.
System/Emergency ROM Flash Recovery with Video	Recovers system BIOS in corrupted Flash ROM.
SMBIOS	System Management BIOS 2.7.1, for system management information.
Boot Control	Disables the ability to boot from removable media on supported devices.
ACPI (Advanced Configuration and Power Management Interface)	Allows the system to enter and resume from low power modes (sleep states). Enables an operating system to control system power consumption based on the dynamic workload. Makes it possible to place individual cards and peripherals in a low-power or powered-off state without affecting other elements of the system. Supports ACPI 4.0 for full compatibility with 64-bit operating systems.
Remote Wakeup/Remote Shutdown	Wake on LAN from S4/S5
ASF 2.0 Compliant	No.
Instantly Available PC (Suspend to RAM - ACPI sleep state S3)	Allows for very low power consumption with quick resume time.
Remote System Installation via F12 (PXE 2.1) (Remote Boot from Server)	Allows a new or existing system to boot over the network and download software, including the operating system.
ROM revision levels	Reports the system BIOS revision level in Computer Configuration Utility (F10 Setup). Version is available through an industry standard interface (SMBIOS) so that management SW applications can use and report this information.

System Technical Specifications

System board revision level	Allows management SW to read revision level of the system board.
Start-up Diagnostics (Power-on Self-Test)	Assesses system health at boot time.
Auto Setup when new hardware installed	System automatically detects addition of new hardware.
Keyboard-less Operation	The system can be booted without a keyboard.
Localized ROM Setup	System Configuration Utility (F10 Setup) menus are mapped to the applicable local languages.
Asset Tag	The user or IT administrator to set a unique tag string in non-volatile memory.
Per-slot Control	Allows I/O slot parameters (option ROM enable/disable) to be configured individually.
Adaptive Cooling	Control parameters are set according to detected hardware configuration for optimal acoustics.
Pre-boot Diagnostics	(Pre-video) critical errors are reported via beeps.
Digitally and Cryptographically Signed BIOS	Helps to prevent the installation of unauthorized versions of a BIOS (a rogue BIOS) from a virus, malware, or other code that could lead to compromised system security, data access, physical service, or even system board replacement.
Boot Block Emergency Recovery Mode (BIOS Recovery)	The HP BIOS offers a write-protected boot block ROM that provides recovery from a failed flashing of the computer BIOS. This special recovery mode prevents the system from becoming unusable or “bricked” when a BIOS update is interrupted.
Industry Standard Specification Support	
Industry Standard	Revision Supported by the BIOS
UEFI Specification Revision	UEFI 2.3.1
ACPI	Advanced Configuration and Power Management Interface, Version 4.0
CD Boot	"El Torito" Bootable CD-ROM Format Specification Version 1.0
EHCI	No. The xHCI Extensible Host Controller, Revision 1.0 Interface is supported
PCI	No
PCI Express	PCI Express Base Specification, Revision 2.0; PCI Express Base Specification, Revision 3.0.
SATA	SATA-IO SATA Revision 3.0 Specification
SPD	PC SDRAM Serial Presence Detect (SPD) Specification, Revision 1.2B

System Technical Specifications

TPM	Trusted Computing Group TPM Specification Version 2.0.
USB	Universal Serial Bus Revision 1.1 Specification Universal Serial Bus Revision 2.0 Specification Universal Serial Bus Revision 3.0 Specification
SMBIOS	System Management BIOS 2.7, for system management information.
NVMe (NVM Express)	Applicable to M.2 2280 M-key expansion slot for M.2 PCIe SSDs

Social and Environmental Responsibility

Eco-Label Certifications & Declarations

This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

- ENERGY STAR® (energy-saving features available on selected configurations -Windows only)
- US Federal Energy Management Program (FEMP) IT ECO declaration

Batteries

The battery in this product complies with EU Directive 2006/66/EC
Battery size: CR2032 (coin cell)
Battery type: Lithium Metal

Batteries used in the product do not contain:

- Mercury greater than 5ppm by weight
- Cadmium greater than 10ppm by weight
- Lead greater than 40 ppm by weight.

Restricted Material Usage

This product meets the material restrictions specified in HP's General Specification for the the Environment: <http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf>

HP Inc. is committed to compliance with all applicable environmental laws and regulations, including the European Union Restriction of Hazardous Substances (RoHS) Directive. HP's goal is to exceed compliance obligations by meeting the requirements of the RoHS Directive on a worldwide basis.

Low Halogen Statement

This product is low halogen except for power cords, cables and peripherals, as well as the following internal components: Projector and 3D camera which are not Low Halogen.

End-of-Life Management and Recycling

HP Inc. offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: <http://www.hp.com/recycle> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. This product is greater than 90% recyclable by weight when properly disposed of at end of life.

HP Inc. Corporate Environmental Information

For more information about HP's commitment to the environment:
Global Citizenship Report <http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html>

Additional Information

- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC.

System Technical Specifications

- Plastic parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
- This product is >90% recycle-able when properly disposed of at end of life.

EPEAT® Gold - ENERGY STAR® certified configurations of this product are in compliance with the IEEE 1680 (EPEAT) standard Registration varies by country. See <http://ww2.epeat.net/CompanyDetail.aspx?CompanyID=24> for registration status in your country.

Packaging

Product packaging meets the HP General Specification for the Environment at http://www.hp.com/hpinfo/globalcitizenship/society/gen_specifications.html

- Does not contain restricted substances listed in HP Standard 011-1 General Specification for the Environment
- Does not contain ozone-depleting substances (ODS)
- Does not contain heavy metals (lead, mercury, cadmium or hexavalent chromium) in excess of 100 ppm sum total for all heavy metals listed
- Maximizes the use of post-consumer recycled content materials in packaging materials
- All packaging material is recyclable
- All packaging material is designed for ease of disassembly
- Reduced size and weight of packages to improve transportation fuel efficiency
- Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards formatting

Packaging Materials

External

Carton made from corrugated fiberboard with at least 20% recycled content.

Manageability

System Software Manager

- Program to proactively communicate Product Change Notifications (PCNs) and Customer Advisories by email to customers, based on a user-defined profile.
- PCNs provide advance notification of hardware and software changes to be implemented in the factory providing time to plan for transition.
- Customer Advisories provide concise, effective problem resolution, greatly reducing the need to call technical support.

Global Series SKUs

System Technical Specifications - Processors

Intel® Core™ i7-7700T 2.9 2400 4C CPU

Technical Specifications – Storage / Hard Drives & SSDs

Sprout Pro Storage Devices

Sprout Pro Storage Devices (SATA SSDs)

512GB 2.5" SATA 6Gbps SSD	Capacity	512GB	
	Protocol	SATA	
	Form Factor	2.5"	
	NAND Type	MLC	
	Physical Size (Height)	0.27 in; 0.68 cm	
	Physical Size (Width)	3.94 in; 10.02 cm	
	Interface	SATA 6.0 Gbps	
	Performance	Sequential Read	Up to 530 MB/s
		Sequential Write	Up to 515 MB/s
		Random Read	Up to 97 KIOPS
	Random Write	Up to 88 KIOPS	

Sprout Pro Storage Devices (PCIe SSDs)

256GB M.2 2280 NVMe PCIe SSD	Capacity	256GB	
	Protocol	PCI Express	
	Form Factor	M.2 2280	
	Controller	NVM Express	
	NAND Type	MLC	
	Physical Size (Height)	0.09 in; 0.238 cm	
	Physical Size (Width)	0.87 in; 2.2 cm	
	Media Diameter	Not appl in; NaN cm	
	Interface	PCI Express Gen3 x4	
	Cache	NA	
	Operating Temperature	32° to 158° F (0° to 70° C)	
	Performance	Sequential Read	Up to 3100 MB/s
		Sequential Write	Up to 1400 MB/s
		Random Read	Up to 330K IOPS
		Random Write	Up to 280K IOPS
PCI Express Specification	Compliant with PCI Express Base Specification Rev. 3.0 Compliant with PCI Express CEM Specification Rev. 3.0		
NVM Express Specification	<ul style="list-style-type: none"> Compliant with NVM Express Specification Rev. 1.2 (Partial) 		

512GB M.2 2280 NVMe PCIe SSD	Capacity	512GB
	Protocol	PCI Express
	Form Factor	M.2 2280
	Controller	NVM Express
	NAND Type	MLC
	Physical Size (Height)	0.09 in; 0.238 cm

Technical Specifications – Storage / Hard Drives & SSDs

Physical Size (Width)	0.87 in; 2.2 cm	
Media Diameter	Not appl in; NaN cm	
Interface	PCI Express Gen3 x4	
Cache	NA	
Operating Temperature	32° to 158° F (0° to 70° C)	
Performance	Sequential Read	Up to 3200 MB/s
	Sequential Write	Up to 1700 MB/s
	Random Read	Up to 330K IOPS
	Random Write	Up to 300K IOPS
PCI Express Specification	Compliant with PCI Express Base Specification Rev. 3.0 Compliant with PCI Express CEM Specification Rev. 3.0	
NVM Express Specification	<ul style="list-style-type: none">Compliant with NVM Express Specification Rev. 1.2 (Partial)	

Technical Specifications – Graphics

Sprout Pro Discrete Graphics

NVIDIA® GeForce® GTX 960M	Form Factor	GPU installed on motherboard
	Graphics Controller	NVIDIA N16P-GX
	Bus Type	PCIe Gen3 x16
	Memory	2GB GDDR5 memory
	Connectors	NA
	Shading Architecture	Shader Model 5.0
	Supported Graphics APIs	DirectX 12 Support, along with previous versions; OpenGL 4.5 OpenCL 1.2

Technical Specifications – Multimedia and Audio Devices

Sprout Pro by HP Audio Speakers components

High quality stereo speakers with 4W/channel

Technical Specification – Other Hardware

DLP Projector (Sprout Pro G2)

The Sprout Pro horizontal display is based on a DLP projector which is designed using LED illumination, and operates at a fixed throw distance and screen tilt angle. It produces sufficient light to render a high quality display under a broad range of ambient illumination conditions.

DLP Projector	Native display resolution	1920x 1280
	Resolution as displayed on the mat (adjusted for Keystone correction)	
	Maximum Resolution	100 PPI
	Median Resolution	95 PPI
	Display refresh rate	60 Hz
	Minimum Brightness	220 lumens
	Contrast Ratio	>800:1
	Peak/Typical power consumption	<150W/ <80W
	Environmental Compliance	Yes ¹

NOTE 1: Assembly and all components will comply with HP's GSE, HF/LH and other applicable environmental specifications.

HP Touch Mat (Sprout Pro G2)

The HP Touch Mat is a touch and active stylus-enabled human interface device which also provides a projector screen surface.

Active Area Aspect Ratio	3:2
Overall Dimensions	22.6" x 15.5" (573 x 394 mm)
Interface	USB 2.0
Touch Technology	PCT (Projected Capacitance)
Touch Points	True Multi-Touch, 20 points recognized by Windows 10
Touch Detection	Fingers, HP Active Pen
Accuracy	± 1 mm
Hover Sensing	~8mm with HP Active Pen
Buttons	3 buttons on Sprout Connector: Input WorkTool, Home (WorkTool launcher), Touch/ Projector enable/disable.
Mechanical properties	Flexible
Stylus Support	Capacitance, HP Active Pen
OS Requirements	Microsoft Windows 10 WHQL
Active Area IR Reflectivity	58% ± 3
Total Mat Thickness	2.2 mm
Refresh Rate	> 100 Hz
Latency	< 18 msec
Surface Finish	Matte, Non-glare ~ 10 GU
ASTM D 1308-02^{ε1} (24 hour duration spot test)	Scratch, Abrasion Resistant Water Proof, Spill Proof
ASTM F 1598-95 (Re-approved 2002) - (Spot)	Dry Erase Marker Wipe Off Permanent Marker Cleanable

Technical Specification – Other Hardware

Test Method) - (24 hour duration)	Cleanable with Household Cleaners (alcohol free cleaners that have no strong chemicals; see Sprout User Guide for detailed instructions) Mar/Blemish resistant to pressure from ball point pen (Diameter 0.03in at 250 grams).
Scratch Resistance*	Consistent with Cosmetic Inspection 45°viewing angle: No scratch detected below 100 grams applied force with Balance Beam loop stylus.
Wear Resistance*	Cosmetically unaffected when subjected to 1000 rubs with “0000” grade 500 gram load.
*Note:	Test results are not a guarantee of future performance under these test conditions. Accidental damage requires an optional HP Accidental Damage Protection Care Pack.

HP High-Resolution camera (downward facing)

The Sprout Illuminator includes the HP High Resolution Camera which is a mounted in a fixed location and orientation. It is a downward facing camera that functions as a high resolution, visible wavelength image capture device for objects placed on the above the Sprout Touch Mat. It includes an extended command interface implemented via a UVC extension DLL. It is Windows Logo certified.

Sensor native resolution	4416 x 3312 (14.6 Megapixel)
Interface: command + data	USB 3.0
Frame Rates:	
4416 x 3312	7fps max
2208 x 1656	30fps max
1104 x 828	60fps max
Output format	YUV422
Motorized adjustable focus/ zoom	No
Front focal distance range	570mm nominal
Field of View	49.3° horizontal, 38.0° vertical, 60.0° diagonal
Relative Illumination	>60% at max FOV
Typical power consumption	4.5W
Environmental Compliance	Yes ¹

NOTE 1: Assembly and all components will comply with HP’s GSE, low halogen and other applicable environmental specifications.

HP Sprout 3D Capture Module (downward facing)

Customized from Orbbec Astra S Mini; works with HP Camera 3D software.

Scanning technology	3D depth camera
3D resolution	~1-10mm depending on object and material
3D point accuracy	Variable across object surface depending on features
Color texture	Photo realistic color texture =>200 ppi (Note: seams between images stitched together may have distortions)
Scanned object size	200x200x200 mm
Export formats	OBJ
Use cases (sample list)	“3D Photo” for communicating and 3D content creation; Social sharing (e.g. Sketchfab);

Technical Specification – Other Hardware

	Content creation for gaming/AR/VR
Caveats	Not intended for detailed 3D reproduction; Only rigid parts can be scanned; Black, shiny, transparent, glossy, highly reflective surfaces cannot scan; Thin, highly symmetric, featureless objects cannot scan

HP 3D Scan Software Pro v5

Scanning technology	Structured light
3D resolution	250-500 microns (0.25 – 0.50 mm)
3D point accuracy	Spec under development
Color texture	Photo realistic color texture =>200 ppi
Scanned object size	200x200x200 mm w/o optional 3D Capture Stage 160 (H) x200 (W)x200 (D) mm with optional 3D Capture Stage
Export formats	OBJ, STL, PLY
Use cases (sample list)	Reverse engineering, archiving, reference geometry for CAD design workflows, parts inspection, metrology
Caveats	Black, shiny, transparent, glossy, highly reflective surfaces cannot scan.

Sprout by HP 3D Capture Stage

Z4C03AA (localized)

Product Specifications:	<ul style="list-style-type: none">• 360-degree rotation with a 15-degree tilt for maximum scan coverage.• Scan objects up to 4.4 lb (2 kg) and up to 7.5 in (190 mm) tall• Mesh Density – 200 microns• Detail Resolution – About 500 microns• Surface texture resolution – from about 100 dpi at Touch Mat up to about 200 dpi
--------------------------------	--

Product Limitations:	The object being scanned must fit on the mat in the volume of light emitted by the projector - approximately 12 inches by 16 inches on the mat and decreasing toward the projector.
-----------------------------	---

Objects that are reflective, transparent, have very uneven textures such as fur, are very dark in color, or are highly symmetrical do not scan well.

Sprout 3D Capture is not intended for users needing precision scans such as for product design or creating museum-quality scans.

What's in the box:	<ul style="list-style-type: none">• 3D Capture Stage• USB cable• Pack of adhesive putty strips• Quick Start Guide• Warranty card
---------------------------	--

Packaged Product Dimensions	10.0 in (H) x 9.3 in (W) x 2.8 in (D) 255.0 mm x 237.0 mm x 72.0 mm
------------------------------------	--

Unpackaged Product Dimensions	1.59 in (H) x 8.08 in (W) x 8.22 in (D) 40.5 mm x 205.2 mm x 208.9 mm
--------------------------------------	--

Packaged Product Weight	4.27 lb 1.94 kg
--------------------------------	--------------------

Unpackaged Product Weight	2.0 lb 0.914 kg
----------------------------------	--------------------

Technical Specification – Other Hardware

Warranty and support

- One-year, worldwide parts-and-labor limited warranty
 - 24x7 technical support
-

Summary of Changes

Date of change:	Version History:		Description of change:
March 1, 2017	From v1 to v2	Changed	Callouts, Memory, Storage and part numbers, Audio, HP Sprout 3D Capture Module and HP 3D Scan Software Pro v5 specs

© 2016 HP Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein. Intel and Core are trademarks of Intel Corporation in the U.S. and other countries. Microsoft and Windows are either trademarks or registered trademarks of Microsoft Corporation in the U.S. and other countries. NVIDIA, GeForce and the NVIDIA logo are trademarks and/or registered trademarks of NVIDIA Corporation in the U.S. and other countries. Bluetooth is a trademark of its proprietor used by HP Inc. under license.