Features

PRODUCT KITS

HP Presence Small Space Solution with Microsoft Teams HP Presence Small Space Solution Plus AI Camera with **Rooms Kit**

Microsoft Teams Rooms Kit





HP Presence Small Space Solution Plus AI Video Bar with **Microsoft Teams Rooms Kit**

HP Presence Medium Space Solution with Microsoft Teams Rooms Kit





HP Presence Medium Space Solution Plus AI Camera with Microsoft Teams Rooms Kit

HP Presence Medium to Large Space Solution Plus AI Camera/Mics with Microsoft Teams Rooms





HP Presence Large Space Solution with Microsoft Teams Rooms Kit





HP Presence Mini Conferencing PC



Front

- 1. Type-C[®] SuperSpeed USB 10Gbps signaling rate port (charge support up to 5V/3A)
- 2. Type-A SuperSpeed USB 10Gbps signaling rate port
- 3. Type-A SuperSpeed USB 5Gbps signaling rate port (charge support up to 5V/2.1A)
- 4. 3.5mm Jack
- 5. Dual-state power button
- 6. Hard drive activity light



Features



Rear

- 1. (2) Dual-Mode DisplayPort[™] 1.4 (DP++)
- 2. Type-A SuperSpeed USB 5Gbps signaling rate port
- 3. Type-A SuperSpeed USB 5Gbps signaling rate port (Supporting wake from S4/S5 with keyboard/mouse connected and enabled in BIOS)
- 4. Type-A SuperSpeed USB 10Gbps signaling rate port (Supporting wake from S4/S5 with keyboard/mouse connected and enabled in BIOS)
- 5. Cover release thumbscrew
- 6. Standard cable lock slot (10 mm)
- 7. Dual HP Presence Control Ports

- 8. SuperSpeed Type-C[™] USB 5Gbps signaling rate (or 1 HP Presence See Camera or HP Presence Audio Visual Bar Primary)
- 9. HDMI 2.0a Port for Hi-Res Sharing/Guest mode thru the Multi-Port Adapter
- 10. Type-A SuperSpeed USB 10Gbps signaling rate port
- 11. RJ45 network connector
- 12. External WLAN antenna opening
- 13. Power connector
- 14. Retractable Padlock loop

Not Shown

Slots	(1) Internal M.2 2230 connector for WLAN(2) Internal M.2 SSD storage 2242 and 2280 connector
Mounting	Support for - VESA Sleeve with PS adapter - Quick Release Bracket



Features



Top view items

- 1. Screen
- 2. LED Room Status light
- 3. Speakers
- 4. Microphones (4)¹
- 1. No Audio Control microphones disabled

- 5. People in Room (PIR) Sensor (located under belly)
- 6. Ambient Light Sensor (ALS) light sensor
- 7. Temp sensor (imbedded under belly)



Features



HP Presence Control/No Audio Control Center

Under view ports

- 1. USB-A Port SuperSpeed USB 5Gbps signaling rate
- 2. HP Presence Control Port
- 3. Device Power Port

- 4. HP Presence Multi-Port Adapter Port
- 5. Cable Management pins



Side Video (only) Input Ports

- 6. USB-C^{®1}
- 7. HDMI 2.0a

1 Only Alt-Displayport USB-C cables are supported. No adapters are supported



Features



HP Presence Control Plus Center

Top items

- 1. Screen
- 2. LED Room Status light
- 3. Speakers
- 4. Microphones (4)

- 5. People in Room (PIR) Sensor (located under belly)
- 6. Ambient Light Sensor (ALS) light sensor
- 7. Temp sensor (imbedded under belly)

Features



HP Presence Control/No Audio Control Center

Under view ports

- 1. RJ11 Ports for HP Presence Talk Satellite Microphones (2)
- 2. USB-A Port SuperSpeed USB 5Gbps signaling rate
- 3. Device Power Port
- 4. HP Presence Control Port

- 5. HP Presence Control Center Daisy Chain Port
- 6. HP Multi-Port Adapter Port
- 7. Cable Management pins



Side Input Ports

- 1. USB-C®
- 2. HDMI 2.0a



Features

HP Presence Hub (Optional with Control or No Audio Control Center) - TBD

Top view items

- 1. LED Status light
- 2. Microphone (4)¹

1. Disabled

Under view ports



- 1. RJ11 Ports for HP Presence Talk Satellite Microphones (2)
- 2. Power Plug For power connection
- 3. Orange Port HP Presence Control Port

- 4. Purple Port HP Presence Control Center Daisy Chain Port
- 5. White Port TBD





HP Presence Audio Video Bar (Optional)



1. Camera

HP Presence Audio Video Bar Ports (Rear View)



- 1. USB-C[®] Power Port
- 2. USB-C[®] Data Port (blue)

Features

HP Presence See 4K AI Camera (Optional)



- 1. Camera
- 2. Activity light



1. USB-C[®] Port connector

AT A GLANCE

- Full HP Meeting Teams Rooms solution with compute and center with different HP conferencing devices
- Microsoft Teams Rooms conferencing solution built on Windows IoT 64 Enterprise
- Designed solution for huddle, small, medium, large, and custom meetings rooms
- HP Presence Mini Conferencing PC Information
 - HP developed and engineered UEFI V2.7 BIOS supporting security, manageability, and software image stability
 - Intel[®] Q470 chipset supporting Intel[®] 10th generation Core[™] processors, featuring integrated Intel[®] UHD 630
 - Graphics and Intel[®] vPro[®] Technology Core i5 and Core i7 processors 35W Processors
 - Intel[®] Ethernet Connection I219LM GbE LOM integrated network connection
 - o Intel[®] Wi-Fi 6 + BT5 (802.11AX 2x2)
 - o DDR4 Synchronous Dynamic Random Access Memory (SDRAM) (Transfer rates up to 2933 MT/s)
 - o Enhanced Security whit HP Security Suite (Refer to Security Section for details)
 - CCC, CECP and SEPA Certified
 - **TCO**
 - o PC chassis and all internal components and modules are manufactured with low halogen content
 - Dust filter available
 - Undergo up to 13 MIL-STD tests¹
 - Protected by HP Services, including limited warranties up to 3-3-3 (terms and conditions vary by country; certain restrictions and exclusions apply); Care Packs available with up to 5 years Next Business Day Onsite Hardware Support
 - Compliance with CE (Class B) / FCC (Class B) / UL (UL60950-1 /UL62368-1) / CSA (CSA C22.2 No.60950-1-07 / CSA C22.2 No. 62368-1-14) / ICES-003 / CCC / VCCI (Class B) / KCC (Class B)

1. MIL-STD drop test not performed for All-in-Ones. MIL-STD testing is not intended to demonstrate fitness for U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Accidental damage requires an optional HP Accidental Damage Protection Care Pack.

NOTE: See important legal disclosures for all listed specs in their respective feature's sections



OPERATING SYSTEM

Preinstalled

Windows 10 IoT Enterprise SAC¹

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 is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com.

Microsoft Teams Rooms/Skype Room Systems IT Topology Pre-Requisites (setup must be one of the these three):

- 1. Online Deployment (0365) Skype for Business Online with Exchange Online. *Active Directory Online
- 2. On Premise Deployment Skype for Business Server 2015 On-Premises with Exchange 2013 SP1+ or later On-Prem. *Active Directory On-Prem

3. Hybrid Deployment - Skype for Business 2015 On-Premise with Exchange Online/ Skype for Business 2015 Online with Exchange 2013 SP1+ On-Prem. *Active Directory On-Prem

Note1: Microsoft Teams Rooms/Skype Room Systems does not support Lync Server 2013

Note2: Preparation of the environment to enable Teams Rooms/SRS

• Microsoft Teams Rooms/Skype Room Systems needs to be assigned a "User account" in Active Directory, Exchange, and Skype for Business. The account is used to access its meeting calendar and establish Skype for Business connectivity. People can book this account by scheduling a meeting with it. Microsoft Teams Rooms/Skype Room Systems will be able to join that meeting and provide various features to the meeting attendees. Without a user account, none of these features will work. The user account & infrastructure must be correctly configured to allow Microsoft Teams Rooms/Skype Room Systems to validate the user account and reach appropriate Microsoft services. For more information on configuration & licenses required: https://docs.microsoft.com/en-us/microsoftteams/room-systems/requirements

• A Microsoft Teams Rooms/Skype Room Systems client appliance PC with all required software installed

• For additional information on configuration& supported topologies: https://docs.microsoft.com/en-us/microsoftteams/room-systems/room-systems



CHIPSET

Intel[®] Q470 PCH-H- vPro[®]

PROCESSORS

Intel[®] 10th Generation Core™ Processors

Intel[®] Core™ i7 10700T Processor with Intel[®] UHD Graphics 630 (2.0 GHz, up to 4.5 GHz with Intel[®] Turbo Boost3,16MB cache, 8 cores) 35W^{1, 2} Supports Intel[®] vPro[®] Technology³

Intel[®] Core[™] i5 10500T processor with Intel[®] UHD Graphics 630 (2.3 GHz, 12 MB cache, 6 cores) 35W^{1, 2} Supports Intel[®] vPro[®] Technology³

1: Multi-core 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 mea configuration surement of higher performance. 2. Intel[®] Optane[™] memory system acceleration does not replace or increase the DRAM in your system.

3. Some functionality of vPro[®] technology, such as Intel Active management technology and Intel Virtualization technology, requires additional 3rd party software in order to run. Availability of future "virtual appliances" applications for Intel vPro[®] technology is dependent on 3rd party software providers. Compatibility with future "virtual appliances" is yet to be determined.

NOTE: Memory speed 2666 and 2933 MT/s can be achieved via two UDIMMs per channel (2DPC) when populated with the same part number.

GRAPHICS

Integrated Intel[®] Graphics

Intel[®] UHD Graphics 630 (integrated on 10th gen Core i7/i5)

Adapters and Cables

HP DisplayPort™ to HDMI True 4K Adapter

HP Presence 2m Type-C cable*

HP Presence 5m Type-C cable*

HP Presence 15m Type-C cable*

HP Presence 30m Type-C cable*

HP Presence 5m Right Angle Type-C Cable (Included with camera and audio/video bar)

NOTE*: Custom USB-C[®] cable only can used between the mini and a center

STORAGE

Integrated Intel® Graphics

256GB M.2 2280 PCIe NVMe Three Layer Cell SSD

NOTE*: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows) of system disk is reserved for the system recovery software



MEMORY

Memory Type

DDR4-2933 (Transfer rates up to 2	933 MT/s), 64 GB, 2 SODIMM ¹
DDR4-2666 (Transfer rates up to 2	666 MT/s), 64 GB, 2 SODIMM

Memory Configuration

8 GB (2 x 4 GB)	
16 GB (2 x 8 GB)	

1. Only available with Intel Core i7 processor. Maximum transfer rate only available with Intel[®] Core i7 = Processors.

NOTE: For systems configured with more than 3 GB of memory and a 32-bit operating system, all memory may not be available due to system resource requirements. Addressing memory above 4 GB requires a 64-bit operating system.

Memory modules support data transfer rates up to 2666 MT/s or 2933 MT/s as depending on processor config; with 1 DIMM per channel.

Additional DIMM loading on any channel may impact maximum memory speed. Actual data rate is determined by the system's configured; See processor specifications for supported memory data rate.

NOTE: All memory slots are customer accessible / upgradeable.

NETWORKING/COMMUNICATIONS

Ethernet (RJ-45)

Intel[®] I219-LM 1 Gigabit Network Connection LOM (vPro[®])

Wireless

Intel[®] Wi-Fi 6¹ AX201 + BT5 (802.11AX 2x2 vPro[®], supporting gigabit file transfer speed)

1. Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 (802.11ax) is backwards compatible with prior 802.11 specs.

AUDIO / MULTIMEDIA

Audio

HP Presence Control Center	
HP Presence Control Plus Center	

Video

HP Presence See 4k Al Camera	
HP Presence Audio Video Bar	

Audio/Video Input

HP Presence Multi-Port Adapter



KEYBOARDS AND POINTING DEVICES

Keyboards (AMO only)

HP Wired Desktop 320K Keyboard HP Wired Desktop 125 Wired Keyboard

Mouse (AMO only)

HP Wired Desktop 320M Mouse HP Wired Desktop 125 Wired Mouse

SYSTEM SECURITY (Hardware/Bios)

TPM 2.0 (FW: 7.85) endpoint security controller (Infineon SLB9670) shipped with Windows 10. Common Criteria EAL4+ Certified. FIPS 140-2 Level 2 Certified.

Intrusion Sensor for DM (integrated in the PCA, can be enabled/disabled through BIOS)

Support for chassis cable lock devices

Support for chassis padlocks devices

Intel® Identify Protection Technology (IPT)¹

Removable media write/boot control

Power-on password (via BIOS)

Setup password (via BIOS)

1. Models configured with Intel[®] Core[™] processors have the ability to utilize advanced security protection for online transactions. IPT, used in conjunction with participating web sites, provides double identity authentication by adding a hardware component in addition to the usual user name and password. IPT is initialized through an HP Client Security module.



PORTS

I/O Ports – Internal Ports

Internal SATA storage connector (Data and Power)

Standard User Accessible Ports

Type-A SuperSpeed USB 5 Gbps signaling rate port	1 (front) 2 (rear)
Type-A SuperSpeed USB 10 Gbps signaling rate port	1 (front) 2 (rear)
Type-C [®] SuperSpeed USB 10 signaling rate Gbps port	1 (front)
Video	2 DisplayPort™ 1.4 (rear)
Audio	1 Combo Audio Jack with CTIA and headset support (front)
Network Interface	1 RJ45 (rear)

(1) Flexible Port 1:

HP Presence Control Ports	2 (rear)
Video	2 HP Presence Control Center Ports

(1) Flexible Port 2:

Type-C USB	2 Hi-Speed USB (rear)
HDMI 2.0a	1 (rear)

Slots

M.2 PCIe	(1) M.2 PCIe x1 2230 (for WLAN)
	(2) M.2 PCIe x4 2280/2230 Combo (for storage)



USB SPECIFICATION AND MARKETING NAME MAPPING TABLE

Marketing Name	Technical Terminology
Hi-Speed USB 480Mbps signaling rate	USB 2.0
SuperSpeed USB 5Gbps signaling rate	USB 3.2 Gen 1
SuperSpeed USB 10Gbps signaling rate	USB 3.2 Gen 2
SuperSpeed USB 20Gbps signaling rate	USB 3.2 Gen 2x2



SOFTWARE COMPONENTS AND APPLICATIONS WITH WINDOWS

Software

Microsoft Teams Rooms¹ HP Desktop Support Utilities HP Privacy Settings HP Presence Smart Setup HP TechPulse² HP Cloud Endpoint Manager³ HP Presence App

Manageability Features and Services

HP Manageability Integration Kit (download)⁴ HP Driver Packs (download) HP Client Catalog (download) HP Client Management Script Library (download) HP Image Assistant Gen5 (download) HP Presence Manager⁵ HP Presence Insights⁶ HP Presence Exchange

Security Management

HP Wolf Security for Business⁷ includes: HP Sure Start Gen7⁸ HP Secure Erase⁹

BIOS

HP BIOSphere Gen6¹⁰ HP DriveLock & Automatic DriveLock BIOS Update via Network Absolute Persistence Module¹¹ Pre-boot Authentication HP Wake on WLAN TPM 2.0 Embedded Security Chip (Common Criteria EAL4+ Certified) (FIPS 140-2 Level 2 Certified

 Microsoft Teams Rooms software preinstalled. Subscription to Microsoft Teams Rooms required and sold separately
 HP TechPulse is a telemetry and analytics platform that provides critical data around devices and applications and is not sold as a standalone service. HP TechPulse follows stringent GDPR privacy regulations and is IS027001, IS027701, IS027017 and SOC2 Type2 certified for Information Security. Internet access with connection to TechPulse portal is required. For full system requirements, please visit http://www.hpdaas.com/requirements.

3. HP Cloud Endpoint Manager is licensed by the terms of the HP Presence Insights Terms of Service http://www.hp.com/hp-presence-insights-tos.

4. HP Manageability Integration Kit can be downloaded from http://www8.hp.com/us/en/ads/clientmanagement/overview.html. 5. HP Presence Manager requires HP Presence Meeting Space Solutions and uses HP Cloud Endpoint Manager and HP TechPulse, a telemetry and analytics platform that provides critical data around devices and applications. HP Cloud Endpoint Manager and HP TechPulse follow stringent GDPR privacy regulations. HP TechPulse is ISO27001, ISO27701, ISO27017 and SOC2 Type2 certified for Information Security. Internet access with connection to TechPulse portal is required. For full system requirements, please visit http://www.hpdaas.com/requirements. HP Presence Manager and HP Presence Insights are licensed by the terms of the HP Presence Insights Terms of Service http://www.hp.com/hp-presence-insightstos.

6. HP Presence Insights is included through December 31, 2022 with the purchase of HP Presence Meeting Space solutions. Functionality will then revert to HP Presence Manager. Purchase of 1–5-year license is required thereafter. HP Presence Manager and HP Presence Insights are licensed by the terms of the HP Presence Insights Terms of Service http://www.hp.com/hp-presence-insights-tos. HP Presence Manager and HP Presence Insights are licensed by the terms of the HP Presence Insights Terms of Service http://www.hp.com/hp-presence-insights-tos. HP Presence Manager and HP Presence Insights use HP Cloud Endpoint Manager and HP TechPulse, a telemetry and analytics platform that provides critical data around devices and applications HP Cloud Endpoint Manager and HP TechPulse follow stringent GDPR privacy regulations. HP TechPulse is IS027001, IS027701, IS027017 and SOC2 Type2 certified for Information Security. Internet access with connection to TechPulse portal is required. For full



system requirements, please visit http://www.hpdaas.com/requirements. HP Presence Manager and HP Presence Insights are licensed by the terms of the HP Presence Terms of Service http://www.hp.com/hp-presence-insights-tos.

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

8. HP Sure Start Gen7 is available on select HP PCs and requires Windows 10 and higher.

9. HP Secure Erase for the methods outlined in the National Institute of Standards and Technology Special Publication 800-88 "Clear" sanitation method. HP Secure Erase does not support platforms with Intel[®] Optane[™].

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

11. Absolute firmware module is shipped turned off and can only be activated with the purchase a license subscription and full activation of the software agent. License subscriptions can be purchased for terms ranging multiple years. Service is limited, check with Absolute for availability outside the U.S. Certain conditions apply. For full details visit: https://www.absolute.com/about/legal/agreements/absolute/.



Features

HP Presence Control/No Audio Control Center



Specifications

Audio Version only

4 corner (360°) Integrated Mics	4m pickup range (disabled for No Audio Control Center)
Satellite Mics	Requires HP Present HUB to use
Speakers 2.25 inch	2 Stereo Speakers
Decibels(db)	85db@1M
Frequency Response	115Hz – 20kHz
тно	< 5% 200Hz to 20kHz, 1W/0.5M
Audio + Room Calibration	B&O Room-Cal (4 core Audio Processor w 32gb memory)
Echo Cancellation	Yes - Rapid
Auto Volume	Yes
Auto Mic Gain	Yes
Stereo Audio	Yes

General (Audio and No Audio versions)

4 corner (360°) Integrated Mics	4m pickup range
Detection	Presence (3m)
BYOD – Guest Mode	Yes (Multi-Port Adaptor Included)
Screen	8 in diagonal, touch, anti-glare, 360° view LED
Screen Resolution	1280x800 @50hz Landscape
Daisy Chain	Yes – Up to 3
Mounting Position	Table / Wall
Remote Configure	Yes – Realtime
Dimensions (LxWxH)	2.56 x 8.92 x 7.61 in (65.2 x 226.6 x 193.3 mm)
Weight	1.65 kg (3.64 lbs) With Audio

- HP Presence Control or No Audio Control Center
- HP Presence 5m Type-C Cable
- 65w USB-C[®] Power Supply
- HP Presence Multi-Port Adapter



Features

HP Presence Control Plus Center



Features

- Low profile intelligent control center
- Built-in Audio Processor for premium stereo audio
- 360 far-field mic pickup range
- Integrated Guest & High-Resolution Modes

Specifications

Specifications	
4 corner (360°) Integrated Mics	6m pickup range
Satellite Mics	Up to 2 mics optional
Speakers 3.25 inch	2 Stereo Speakers
Decibels(db)	89db@1M
Frequency Response	95Hz – 16kHz
THD	< 5% 100Hz to 20kHz, 1W/0.5M
Audio + Room Calibration	B&O Room-Cal (4 core Audio Processor w 32gb memory)
Echo Cancellation	Yes – Rapid
Auto Volume	Yes
Auto Mic Gain	Yes
Stereo Audio	Yes
Sensors	Passive infrared (People in Room-PIR), Light (Ambient Light Sensor-ALS) and temperature
Detection	Presence (3m)
BYOD – Guest Mode	Yes (Multi-Port Adaptor Included)
Screen	8 in diagonal, touch, anti-glare, 360° view LED
Screen Resolution	1280x800 @50hz Landscape
Daisy Chain	Yes – Up to 3
Mounting Position	Table
Remote Configure	Yes – Realtime
Dimensions (LxWxH)	2.56 x 8.92 x 7.61 in (65.2 x 226.6 x 459.2 mm)
Weight	4.03 kg (8.87 lbs) With Audio

- HP Presence Control Plus Center
- HP Presence 5m Type-C Cable
- 90w Power Supply
- HP Presence Multi-Port Adapter



HP Presence Hub (optional) -TBD



Features

- Low profile hub
- Extended
- Voice pickup with total 6 mics
- Plug and Play satellite microphones (2)
- Only works with and integrates easily with the Control/No Audio Control centers

Specifications

Integrated Mics	4 corner (360°), 4 m pickup range (disabled)
Satellite Mics	2 Included (3m pickup range)
Echo Cancellation	Yes - Rapid
Auto Mic Gain	Yes
BYOD – Guest Mode	Yes
Remote Configure	Yes - Realtime
Dimensions (LxWxH)	2.56 x 8.92 x 7.61 in (65.2 x 226.6 x 193.3 mm)
Hub Weight	1.43 k (3.15 lb)
Satellite Mics Weight	80.4 g (0.18 lb)

- HP Presence Hub
- HP Presence 2m USB-C[®] Cable
- 90w Power Supply
- HP Presence Talk Satellite Microphones (2) with RJ11 cables



HP Presence See 4k AI Camera (Optional with any platform)



Features

- Mics Callout: (2) Presenter Tracking Mics
- Speaker Detection
- HP Auto Frame (3 modes)
- Anti-Vibration Stabilizer
- Wide Dinamic Range
- Auto Light Adjustment
- People Counting (Up to 20)
- Auto Image Rotate Accelerometer
- Electronic Image Stabilization
- Up/down rotational motor
- Supports Customize and Control with HP Presence Smart Setup App
- Space X App SW interface

Specifications

Definition	4K @30FPS	
Privacy Shutter	Automatic - Mechanical	
Zoom Pan/Tilt	5X ePTZ (Digital)
Framing	Auto 3 speeds	
Picture Correction	WDR	
Picture -In-Picture	Yes – Speaker Ti	racking
Sensors	12MP	
Detection	Auto-rotate	
BYOD – Guest Mode	Yes (Video)	
12MP image sensor	Resolution Aspect ratio FOV Zoom	3840x2160 @30FPS 16:9 H 112°, V 73°, D 122° 5x digital
Interface	USB 3.1 G1 HW	
Dimensions (LxWxH)	3.52 x 3.52 x 6.89 in (100 x 100 x 195.6 mm)	
Table Stand mode Weight	0.44 kg (0.96 lbs)	
Wall Mount Weight	0.26kg (0.57 lbs)	



Features

Includes

- HP Presence See 4k Al Camera
- HP Presence 5m Right Angle Type-C Cable
- Table Mount
- Wall Mount¹
- 1. Does not include Locking Mount (separate option kit)

HP Presence Audio Video Bar (Optional)



Audio Features

- Dedicated Audio Processor for premium stereo audio
- Auto room calibration supported
- Automatic privacy shutter
- Cinema like auto zooming

Audio Specifications

Integrated Mics	4 Uni-Directional Mics, 6m pickup range	
Speakers	2.25 in. Stereo Speakers (4) / 1.25 n. Tweeter (2)	
Decibels(db)	89db@1M	
Frequency Response	100Hz – 20kHz	
THD	< 5% 150Hz to 20kHz, 1W/0.5M	
Audio + Room Calibration	B&O Room-Cal (4 core Audio Processor w 32gb memory)	
Echo Cancellation	Yes - Rapid	
Auto Volume	Yes	
Auto Mic Gain	Yes	
Stereo Audio	Yes	
Daisy Chain	Yes	
Satellite Mic	Up to 2 optional	
Detection	Auto-Open	
Detection Distance	3m - 90° FOV	
BYOD	Yes (Video + Speakers + Mics)	



Camera Features

- Mics Callout: (2) Presenter Tracking Mics
- HP Auto Frame (3 modes)
- Auto Light Adjustment
- People Counting (Up to 20)
- Auto Image Rotate Accelerometer
- Anti-Vibration Stabilizer
- Supports Customize and Control with HP Presence Smart Setup App

Camera Specifications

Definition	4K @30FPS		
Privacy Shutter	Automatic - Mechanical		
Zoom Pan/Tilt	5X ePTZ (Digital)		
Framing	Auto 3 speeds		
Picture Correction	WDR		
Picture -In-Picture	Yes – Speaker Tracking		
Detection Distance	3m - 90° FOV		
12MP image sensor	Resolution 3840x2160 @30FPS Aspect ratio 16:9 FOV H112°, V 73°, D 122° Zoom 5x digital		

Overall Specifications

Interface	USB-C®
Dimensions (LxWxH)	4.91 x 3.37 x 35.47 in (124.8 x 85.7 x 901mm)
Weight	3.93 kg (8.66 lb) Table stand mode
Bar Width	901 mm (doors closed), 981 mm (doors open)
Traveling distance of single door (left or right)	40 mm

- HP Presence Audio Video Bar
- HP Presence 5m Right Angle Type-C Cable
- 65w USB-C[®] Power Supply
- Wall Mount



HP Presence Talk Satellite Microphones (2) (Optional or comes with HP Presence Hub with RJ11 Cables included)



Features

- Bright 360-degree LED Light for mic status
- Touch Control Mute / Un-Mute
- Easy Table setup with standard RJ11 connection
- Mics separately only work with HP Presence Control Plus Center

Specifications

Range	Increase range by 3 m
Dimensions (L x W x H)	3.11 x 3.11 x 0.80 in (79.14 x 79.14 x 20.5 mm)
Weight	80.4 g (0.18 lb)
RJ11 Cable Length	1.8 m

- 2 Satellite Microphones
- 2 RJ11 cables



HP Presence Multi-Port Adapter



Features

- HDMI or USB-C[®] video input connectors for video input
- USB-A® input connector for audio input when using HDMI video input for Guest mode
- White Color coded connector for easy installation
- Included with HP Presence Control/No Audio Control/Control Plus consoles

Specifications

Length Dimensions	2.0 m
HDMI 2.0a input	Yes
USB-C [®] USB 5Gbps signaling rate connector	Yes
USB-A® USB 5Gbps signaling rate connector	Yes

BASIC PLATFORM KIT CONTENTS

HP Presence kit with a Control/No Audio Control Center and Microsoft Teams Rooms

- HP Presence Mini Conferencing PC with preloaded Win IoT Enterprise and Microsoft Teams Rooms
- HP 90w Power Supply
- HP Mini Port Cover
- HP Mini Security Dual VESA Sleeve v3 with Power Supply Holder
- HP Presence Control or No Audio Control Center
- HP 65w USB-C[®] Power Supply
- HP Presence 5m USB-C[®] Cable (with clips) *
- HP Presence Multi-Port Adapter
- HP DisplayPort to HDMI True 4k Adapter
- T10/T4 Torq wrench
- Optional in box (or AMO kit)
 - o HP Presence Hub with 2m cable with clips, Power Supply, and HP Presence Talk Satellite Microphones (2) (with RJ11 cables)

HP Presence with a Control Plus Center and Microsoft Teams Rooms

- HP Presence Mini Conferencing PC with preloaded Win IoT Enterprise and Microsoft Teams Rooms
- HP 90w Power Supply (2 of them)
- HP Mini Port Cover
- HP Mini Security Dual VESA Sleeve v3 with Power Supply Holder
- HP Presence Control Plus Center
- HP Presence 5m USB-C[®] Cable (with clips) *
- HP Presence Multi-Port Adapter
- HP DisplayPort to HDMI True 4k Adapter
- T10/T4 Torq wrench
- Optional in box (or AMO kit)
 - o HP Presence Talk Satellite Microphones (2) (with RJ11 cables)
- Custom USB-C[®] cable between mini and center



ENVIRONMENTAL & INDUSTRY

Low halogen (chassis, all internal components and modules)¹ TAA compliant models available

1. External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.

UNIT ENVIRONMENT AND OPERATING CONDITIONS

General Unit Operating Guidelines

- Use the operating specifications for helpful information when you travel with or store your computer.
- Keep the computer away from excessive moisture, direct moisture and the extremes of heat and cold, to ensure that unit
 is operated within the specified operating range.
- Leave a 10.2 cm (4 in) clearance on all vented sides of the computer to permit the required airflow.
- Never restrict airflow into the computer by blocking any vents or air intakes.
- Do not stack computers on top of each other or place computers so near each other that they are subject to each other's re-circulated or preheated air.
- Occasionally clean the air vents on the front, back, and any other vented side of the computer. Lint, dust and other foreign
 matter can block the vents and limit the airflow.
- If the computer is to be operated within a separate enclosure, intake and exhaust ventilation must be provided on the
 enclosure, and the same operating guidelines listed above will still apply.

Temperature Range	Operating: 41° to 95° F (5° to 35° C)¹ (writing to optical disc)² Non-operating: -4° to 140° F (-20° to 60° C)
Relative Humidity	Operating: 10% to 90% (non-condensing at ambient) Non-operating: 5% to 95% (non-condensing at ambient)
Maximum Altitude (unpressurized)	Operating: -50 ft to 10,000 ft (-15 m to 3,048 m) Non-operating: -50 ft to 40,000 ft (-15 m to 12,192 m)

1. Operating temperature is de-rated 1.0 deg C per 300 m (1000 ft) to 3000 m (10,000 ft) above sea level, no direct sustained sunlight. Maximum rate of change is 10 deg C/Hr. The upper limit may be limited by the type and number of options installed. 2. Presence detection: 5°C to 25°C.



HP Presence Mini Conferencing PC

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: • IT ECO declaration			
System Configuration	The configuration used for the Energy Consumption and Declared Noise Emissions data for the Desktop model is based on a "Typically Configured Desktop.			
Energy Consumption	115VAC, 60Hz	230VAC,	, 50Hz	100VAC, 50Hz
Normal Operation (Short idle)	8.9320 W	8.9410 W		8.9190 W
Normal Operation (Long idle)	6.3380 W	6.346	0 W	6.3280 W
Sleep	1.0520 W	1.102	0 W	1.0320 W
Off	0.8210 W	0.822	0 W	0.8200 W
Heat Dissipation*	115VAC, 60Hz	230VAC	504-	100VAC, 50Hz
Normal Operation	113VAC, 00112	ZJUVAL	, 50112	100VAC, 5012
(Short idle)	30.4581 BTU/hr	30.4888 BTU/hr		30.4138 BTU/hr
Normal Operation (Long idle)	21.6126 BTU/hr	21.6399		21.5785 BTU/hr
Sleep	3.5873 BTU/hr	3.7578 BTU/hr		3.5191 BTU/hr
Off	2.7996 BTU/hr	2.8030 E	3TU/hr	2.7962 BTU/hr
	NOTE: Heat dissipation is calculated ba one hour.	sed on the measure	d watts, assumir	ng the service level is attained for
Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)	Sound Power (L _{WAd} , bels)			Sound Pressure (L _{PAm} , decibels)
Typically Configured – Idle	2.8			18.8
Fixed Disk – Random writes	2.8 18.8		18.8	
Longevity and Upgrading	This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the product may include: Spare parts are available throughout the warranty period and or for up to "5" years after the end of			
	production.			
Batteries	This battery(s) in this product comply with EU Directive 2006/66/EC			
	Batteries used in the product do not contain:			
	Mercury greater the1ppm by weigh			
Cadmium greater than 20ppm by weight				
	Battery size: CR2032 (coin cell)			
	Battery type: Lithium			

Features			
Additional Information	2011/65/EC. • This HP pro Directive – 2 • This produce Water and To • Plastics pa • This produce ITE-derived p • This produce	oduct is designed to comply with the Waste Electrical and 002/96/EC. ct is in compliance with California Proposition 65 (State of oxic Enforcement Act of 1986). rts weighing over 25 grams used in the product are mark ct contains a minimum of 35% post-consumer recycled p post-consumer recycled plastic* ct is 95.1% recycle-able when properly disposed of at en	d Electronic Equipment (WEEE) of California; Safe Drinking ked per ISO11469 and ISO1043. olastic (by wt.); Including 10% nd of life.
	-	led plastic content percentage is based on the definition set in	1
Packaging Materials	External:	PAPER/Corrugated	405 g
		PAPER/Molded pulp	74 g
Material Usage	Internal:	PLASTIC/Polyethylene low density does not contain any of the following substances in exc	3 g
Packaging Usage	to the HP Ge http://www. • Asbestos • Certain Azc • Certain Bro • Cadmium • Chlorinated • Chlorinated • Chlorinated • Halogenate • Lead carbo • Lead and L • Mercuric Os • Nickel – fin carried by th • Ozone Dep • Polybromir • Polybromir • Polybromir • Polybromir • Polybromir • Polybromir • Polychlorir • Polychlorir • Polychlorir • Polyvinyl C voluntarily r	neral Specification for the Environment at hp.com/hpinfo/globalcitizenship/environment/pdf/gse. colorants minated Flame Retardants – may not be used as flame r d Hydrocarbons d Paraffins yde ed Diphenyl Methanes nates and sulfates ead compounds kide Batteries ishes must not be used on the external surface designed	pdf): retardants in plastics d to be frequently handled or retail packaging has been
	to the HP Ge http://www. • Asbestos • Certain Azo • Certain Bro • Cadmium • Chlorinateo • Chlorinateo • Formaldeh	neral Specification for the Environment at hp.com/hpinfo/globalcitizenship/environment/pdf/gse. o Colorants ominated Flame Retardants – may not be used as flame r d Hydrocarbons d Paraffins	pdf):

Features

	Lead carbonates and sulfates
	Lead and Lead compounds
	Mercuric Oxide Batteries
	• Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user.
	Ozone Depleting Substances
	Polybrominated Biphenyls (PBBs)
	Polybrominated Biphenyl Ethers (PBBEs)
	Polybrominated Biphenyl Oxides (PBBOs)
	Polychlorinated Biphenyl (PCB)
	Polychlorinated Terphenyls (PCT)
	• Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
	Radioactive Substances
	• Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)
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/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.
	The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment. Global Citizenship Report
	http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html
	Eco-label certifications
	http://www8.hp.com/us/en/hp-information/environment/ecolabels.html
	ISO 14001 certificates:
	http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/PC_GBU_Product_Design_ISO_14K _Certificate.pdf
	and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf
	http://www.np.com/npinto/globalctizensnip/environment/pur/cert.pur

SERVICE AND SUPPORT

HP Presence Mini Conferencing PC

On-site Warranty¹: Three-year (3-3-3) limited warranty delivers three years of on-site, next business day² service for parts and labor and includes free support 24 x 7³. Three-year onsite and labor are not available in all countries. Service offers terms up to 5 years by choosing an optional HP Care Pack. To choose the right level of service for your HP product, visit HP Care Pack Central: http://www.hp.com/go/cpc.⁴

Terms and conditions may vary by country. Certain restrictions and exclusions apply. Other warranty variations may be offered in your region.
 On-site service may be provided pursuant to a service contract between HP and an authorized HP third-party provider, and is not available in certain countries. Global service response times are based on commercially reasonable best effort and may vary by country.
 Technical telephone support applies only to HP-configured and third-party HP qualified hardware and software. Toll-free calling and 24 x 7 support may not be available in some countries.

4. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit www.hp.com/go/cpc. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.



Technical Specifications – Processors

PROCESSORS

Intel® 10th Generation Core™ Processors

HP Presence Mini Conferencing PC features this technology includes processors that are part of the Intel® Stable Image Platform Program (SIPP) designed to ensure the stability promise inherent in the value proposition of the HP Presence Mini Conferencing PC.

Intel[®] Advanced Management Technology (AMT) v12 – An advanced set of remote management features and functionality which provides network administrators the latest and most effective tools to remotely discover, heal, and protect networked client systems regardless of the system's health or power state. AMT 12 includes the following advanced management functions:

- Support for configuration of Intel AMT 12.0 new capabilities
- No reset after provisioning
- Support changes to BIOS table 130
- Support for Microsoft Windows Server 2012 R2
- Support for New Microsoft SQL Server Versions including Standard and Enterprise editions
- Support for Intel SSD Prop 2500 Series
- Support for Intel Enterprise Digital Fence
- The Platform Discovery Utility can now discover these additional Intel products:
- Intel SSD Pro 2500 Series; Enterprise Digital Fence
- Intel Identity Protection Technology with One Time Password; Public Key Infrastructure; Multi Factor Authentication
- Intel Identity Protection Technology with Intel WiGig
- New Profile Editor and Profile Editor Plugin Interface
- New Required Permissions for Solutions Framework



Technical Specifications – Graphics

GRAPHICS

HP Presence Mini Conferencing PC

Intel[®] HD 630 Graphics (integrated)

DisplayPort™	Multimode capable; supports HDCP, Display Port Audio (2 streams), HBR2 link rates and Multi- Stream Technology for a maximum of 3 displays connected to any output controlled by Intel® Graphics
HDMI	Supports HDMI 2.0a features Supports HDCP 2.3
	Supports audio over HDMI
USB-C [®] DP Alt Mode	DisplayPort over the Presence Control Ports
Memory	The actual amount of maximum graphics memory can be >4GB. System memory is allocated for graphics as needed using Intel's Dynamic Video Memory Technology (DVMT), to provide an optimal balance between graphics and system memory use.
Maximum Color Depth	up to 10 bits/color
Graphics/Video API Support	HEVC 10b Enc/Dec HW
	VP9 10b Dec HW
	HDR
	Rec. 2020
	DX12
Max. Resolution (HDMI)	4096 x 2160@60Hz
Max. Resolution (DP)	4096 x 2160@60Hz



Technical Specifications – Storage

STORAGE

256GB M.2 2280 PCIe NVMe Three Layer Cell SSD

Drive Weight	<10g
Capacity	256GB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIE Gen3
Maximum Sequential Read	Up to 2700MB/s
Maximum Sequential Write	Up to 1000MB/s
Logical Blocks	500,118,192
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	APST; ASPM L1.2; NVME spec 1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows) of system disk is reserved for the system recovery software.


NETWORKING AND COMMUNICATIONS

Intel® I219-LM 1 Gigabit	Network Connection LOM (vPro®)		
Connector	RJ-45		
System Interface	PCI (Intel proprietary) + SMBus		
Data rates supported	10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14)		
	100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30)		
	1000 Mbit/s operation (1000BASE-T; IEEE 802.3ab; IEEE 8023 clauses 40)		
	Auto-Negotiation (Automatic Speed Selection)		
	Full Duplex Operation at all Speeds, Half Duplex operation at 10 and 100 Mbit/s		
IEEE Compliance	IEEE 802.1p QoS (Quality of Service) Support		
	IEEE 802.1q VLAN support		
	IEEE 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable)		
	IEEE 802.3az EEE (Energy Efficient Ethernet)		
Performance	TCP/IP/UDP Checksum Offload (configurable)		
	Protocol Offload (ARP & NS)		
	Large send offload and Giant send offload		
	Receiving Side Scaling (Hash Mode Only)		
	Jumbo Frame 9K		
Power consumption	Cable Disconnetion: 25mW		
	100Mbps Full Run: 450mW		
	1000bp Full Run: 1000mW		
	WoL Enable(S3/S4/S5): 50mW		
	WoL Disable(S3/S4/S5): 25mW		
Power	ACPI compliant – multiple power modes		
Management	Situation-sensitive features reduce power consumption		
	Advanced link down power saving for reducing link down power consumption		
Management Interface	Auto MDI/MDIX Crossover cable detection		
IT Manageability	Wake-on-LAN from modern standby or sleep state (Magic Packet and Microsoft Wake-Up Frame);		
	Wake-on-LAN from off (Magic Packet only)		
	PXE 2.1 Remote Boot		
	Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30))		
	Comprehensive diagnostic and configuration software suite		
	Virtual Cable Doctor for Ethernet cable status		
Security & Manageability	Intel® vPro® support with appropriate Intel® chipset components		



Intel Wi-Fi 6 AX201 + BT5 (8	802.11ax 2x2, vPro®, supporting gigabit file transfer speeds) ¹
Wireless LAN Standards	
	IEEE 802.11b
	IEEE 802.11g
	IEEE 802.11n
	IEEE 802.11ac
	IEEE 802.11ax
	IEEE 802.11d
	IEEE 802.11e
	IEEE 802.11h
	IEEE 802.11i
	IEEE 802.11k
	IEEE 802.11r
	IEEE 802.11v
Interoperability	Features Wi-Fi 6 technology
Frequency Band	802.11b/g/n/ax
Frequency bana	• 2.402 – 2.482 GHz
	802.11a/n/ac/ax
	• 4.9 – 4.95 GHz (Japan)
	• 5.15 – 5.25 GHz
	• 5.25 – 5.35 GHz
	• 5.47 – 5.725 GHz
	• 5.825 – 5.850 GHz
Data Rates	• 802.11b: 1, 2, 5.5, 11 Mbps
Dala Rales	• 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
	• 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
	• 802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz)
	• 802.11ac: MCS0 ~ MCS9, (1SS, and 2SS) (20MHz, 40MHz, ,80MHz & 160MHz)
	• 802.11ax: MCS0 ~ MCS11, (1SS and 2SS) (20MHz, 40MHz, ,80MHz & 160MHz)
Modulation	Direct Sequence Spread Spectrum
Houddation	OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM
Security ²	IEEE compliant 64 / 128 bit WEP encryption for a/b/g mode only
Security	• AES-CCMP: 128 bit in hardware
	802.1x authentication
	• WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES.
	• WPA2 certification
	• IEEE 802.11i
	• WAPI
Network Architecture	Ad-hoc (Peer to Peer)
Models	Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points
Output Power ³	• 802.11b: +18.5dBm minimum
	• 802.11g: +17.5dBm minimum
	• 802.11a: +18.5dBm minimum
	• 802.11n HT20(2.4GHz): +15.5dBm minimum
	• 802.11n HT40(2.4GHz): +14.5dBm minimum
	• 802.11n HT20(5GHz): +15.5dBm minimum
	• 802.11n HT40(5GHz): +14.5dBm minimum
	• 802.11ac VHT80(5GHz): +11.5dBm minimum
	• 802.11ac VHT160(5GHz): +11.5dBm minimum
	• 802.11ax HT40(2.4GHz): +10dBm minimum
	• 802.11ax VHT160(5GHz): +10dBm minimum
Power Consumption	Transmit mode: 2.0 W
· • •••• • • • • • • • • • • • • • • •	Transmit mode. Lo w



Transmit Power Power Consumption Bluetooth ^a Software Supported	Peak (Tx) 330 mW Peak (Rx) 230 mW Selective Suspend	17 mW Bluetoothâ Software		
	Peak (Tx) 330 mW			
Transmit Dower	The Bluetoothâ component shall operate as a Class II Bluetoothâ device with a maximum transmit power of +9.5 dBm for BR and EDR.			
	864 kbps symmetri	ic (3-EV5)		
		us Connection Oriented links up to 3, 64 kbps, voice channels. ous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or		
		ate; throughput up to 0.2 Mbps		
Data Rates and Throughput		a rate; throughput up to 2.17 Mbps		
Number of Available Channels	Legacy: 0~79 (1 MHz/CH) BLE: 0~39 (2 MHz/CH)			
Frequency Band	2402 to 2480 MHz			
Bluetooth ^a Specification	4.0/4.1/4.2/5.0/5.1	Compliant		
HP Integrated Module with I	Bluetooth [®] 4.0/4.1	/4.2/5.0/5.1 Wireless Technology		
LED Activity	LED Amber – Radio	o OFF; LED White – Radio ON		
	Non-operating	0 to 50,000 ft (15,240 m)		
Altitude	Operating	0 to 10,000 ft (3,048 m)		
	Non-operating	5% to 95% (non-condensing)		
Humidity	Operating	10% to 90% (non-condensing)		
Temperature	Operating Non-operating	14° to 158° F (–10° to 70° C) –40° to 176° F (–40° to 80° C)		
Operating Voltage	3.3v +/- 9%			
	2. Type 126: 1.3g			
Weight	1. Type 2230: 2.8c			
	2. Type 1216: 1.67 x 12.0 x 16.0 mm			
Dimensions	1. Type 2230: 2.3			
Form Factor		liniCard with CNVi Interface		
		al band 2.4/5 GHz antennas are provided to the card to support WLAN tions and Bluetooth communications		
Antenna type	High efficiency and	tenna with spatial diversity, mounted in the display enclosure		
		(VHT160): -58.5dBm maximum		
	-	(HT40): -59dBm maximum		
		-59dBm maximum		
		-84dBm maximum		
		: -64dBm maximum		
		: -67dBm maximum		
		pps: -72dBm maximum		
		s: -84dBm maximum os: -86dBm maximum		
Receiver Sensitivity ⁴		-93.5dBm maximum		
		power saving mode		
Power Management	-	ess compliant power management		
	• Radio disabled: 8	•		
	Connected Stand			
		W (WLAN Associated)		
	Receive mode: 1	180 mW (WLAN Associated)		



Power Management	Microsoft Windows ACPI, and USB Bus Support		
Certifications	FCC (47 CFR) Part 15C, Section 15.247 & 15.249		
Power Management Certifications	ETS 300 328, ETS 300 826		
-	Low Voltage Directive IEC950		
	UL, CSA, and CE Mark		
Bluetooth Profiles Supported	BT4.1-ESR 5/6/7 Compliance		
	LE Link Layer Ping		
	LE Dual Mode		
	LE Link Layer		
	LE Low Duty Cycle Directed Advertising		
	LE L2CAP Connection Oriented Channels		
	Train Nudging & Interlaced Scan		
	BT4.2 ESR08 Compliance		
	LE Secure Connection- Basic/Full		
	LE Privacy 1.2 –Link Layer Privacy		
	LE Privacy 1.2 – Extended Scanner Filter Policies		
	LE Data Packet Length Extension		
	FAX Profile (FAX)		
	Basic Imaging Profile (BIP)2		
	Headset Profile (HSP)		
	Hands Free Profile (HFP)		
	Advanced Audio Distribution Profile (A2DP)		
Security & Manageability	Intel® vPro® support with appropriate Intel® chipset components		

1. Wi-Fi 6 is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels. Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 (802.11ax) is backwards compatible with prior 802.11 specs. 2. Check latest software/driver release for updates on supported security features.

3. The FCC has declared as of September 1, 2014 products that utilize passive scanning on channel 12/13 and are capable of transmitting must fully comply with requirements of 15.247 or otherwise disable those channels.

4. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).



I/O DEVICES

HP Wired Desktop 320	K Keyboard (AMO only)			
	Keys	104, 105, 107,109 layout	:S	
Physical Characteristics	Dimensions(L x W x H)	18.86 x 4.55 x 0.66 in (42	6.2 x 110.9 x 16.7 mm)	
	Weight	1.00 lb (452g)		
	Operating voltage	5 VDC, +/-5%		
	Power consumption	50 mA Max (All LED on)		
Electrical	System interface	USB Port		
	ESD	Contact Discharge: 8 KV Air Discharge: 15 KV (Class B)		
	EMI - RFI	European Standard EN 55 FCC/CFR 47 : Part 15 Clas	5022: 2006+A1: 2007, Clas s B	ss B.
1echanical	Кеусарѕ	2.0mm +/-0.2mm at 120	gf Key travel	
	Operating temperature	10° C to 90° C		
	Non-operating temperature	-30° C to 95° C		
	Operating humidity	N/A		
	Non-operating humidity	10% to 90% (non-conder	ising at ambient)	
	Operating shock	N/A		
Environmental	Non-operating shock	Sample size: 5pcs. Condition: Sample power Axis: X, Y, Z axis (all 6 fac Number of shocks: 1 s Pulse duration: < 3 m Velocity change: 50lp ii. Trapezoidal Shock- Tra Sample size: 5pcs. Condition: Sample power Orientation: All six faces: Configuration: As intende Number of shocks: 1 show Minimum faired accelerat margin.	es) – sample normal mode hock/face. s (inch-per-second)- 65lps insportation Environment off. Front, Rear, Left, Right, B ed for shipment	e of operation. 5 desired. , Non-Operational ottom, and Top. 9 and 50G's to find
		Frequency (Hz)	Slope (dB/oct)	PSD (g²/Hz)
		5-350	0	0.0001
	Operating vibration	350-500	-6	-
		500	- (~0.21G _{nms})	0.00005
		т	otal Test time: 10 minute	<u> </u>
	Non-operating vibration	Frequency (Hz)	Slope (dB/oct)	PSD (g²/Hz)



		5.100	0	0.015
		100-137	-6	-
		137-350	0	0.008
		350-500	-6	-
		500	-	0.0039
	Drop (out of box)	76cm on carpet, six-drop	sequence	
	Drop (in box)	10 times drop including 6 Drop Height: 91cm	faces, one corner and 3 e	edges on rigid surface.
Approvals	CB, CE, FCC, ICES, EAC, NOM-NYCE SCT, RCM, BIS, VCCI, KC, BSMI			
Ergonomic compliance	TUVGS			

HP 125 USB-A Wired Keyb	oard (AMO only)	
	Keys	104, 105 layout (depending upon country)
Physical Characteristics	Dimensions (L x W x H)	17.04 x 5.55 x 0.52 in (433 x 141 x13.2 mm)
	Weight	1.54 lb. (698g)
	Operating voltage	5 VDC, +/-5%
	Power consumption	35mA (All LED on)
Electrical	System interface	USB Type A plug connector
Electrical	ESD	Contact Discharge: 8 KV Air Discharge: 15 KV
	EMI - RFI	Conforms to FCC rules for a Class B computing device
	Microsoft [®] PC 99 - 2001	Functionally compliant
	Keycaps	Low-profile design
	Switch actuation	60±10g nominal peak force with tactile feedback
	Switch life	10 million keystrokes (Life tester)
Mechanical	Switch type	Contamination-resistant switch membrane
	Key-leveling mechanisms	For all double-wide and greater-length keys
	Cable length	6 ft. (1.8 m)
	Microsoft PC 99 - 2001	Mechanically compliant
	Acoustics	43-dBA maximum sound pressure level
	Operating temperature	50° to 122° F (10° to 50° C)
	Non-operating temperature	-22° to 140° F (-30° to 60° C)
P	Operating humidity	10% to 90% (non-condensing at ambient)
Environmental	Non-operating humidity	20% to 80% (non-condensing at ambient)
	Operating shock	40 g, six surfaces
	Non-operating shock	80 g, six surfaces
	Operating vibration	2-g peak acceleration



	Non-operating vibration	4-g peak acceleration	
	Drop (out of box)	26 in (66 cm) on carpet, six-drop sequence	
	Drop (in box)	30 in (76.2 cm) on concrete, 16-drop sequence	
Approvals	UL, FCC, CE Mark, TUV GS, VCCI, BSMI, RCM, KCC		
Ergonomic compliance	TUVGS		
Kit contents	Keyboard, QSP		
Warranty Card	Product Notice		

HP Wired Desktop 320M Mouse (AMO only)			
	Keys	Left/right key	
Physical Characteristics	Dimensions(L x W x H)	4.09 x2.50 x 1.40 in (103.8x 63.4 x 35.5 mm)	
	Weight	0.16 lb(72g)	
	Operating voltage	5 VDC, +/-0.25V	
	Power consumption	100 mA Max	
Electrical	System interface	USB Port	
	ESD	Contact Discharge: 8 KV Air Discharge: 15 KV (Class B)	
	EMI - RFI	European Standard EN 55022: 2006+A1: 2007, Class B. FCC/CFR 47 : Part 15 Class B	
	Keycaps	0.3mm key travel	
	Key actuation	75±20g	
Mechanical	Key life	1million cycles	
	Key structure type	Tact Switch	
	Key-leveling mechanisms	N/A	
	Operating temperature	10° to 90° C	
	Non-operating temperature	-30° C to 95° C	
Environmental	Operating humidity	N/A	
	Non-operating humidity	10% to 90% (non-condensing at ambient)	
	Operating shock	N/A	



	Non-operating shock	 i. Half-Sine Shock – End-Use Handling, Non-Operational Sample size: 5pcs. Condition: Sample power off. Axis: X, Y, Z axis (all 6 faces) – sample normal mode of operation. Number of shocks: 1 shock/face. Pulse duration: < 3 ms Velocity change: 50lps (inch-per-second)- 65lps desired. ii. Trapezoidal Shock- Transportation Environment, Non-Operational Sample size: 5pcs. Condition: Sample power off. Orientation: All six faces: Front, Rear, Left, Right, Bottom, and Top. Configuration: As intended for shipment Number of shocks: 1 shock/face. Minimum faired acceleration: 30G's. Test also at 40 and 50G's to find margin. Velocity change: 266lps (inch-per-second) for product mass (m) 20<m<40lbs.< li=""> </m<40lbs.<>		
		Frequency (Hz)	Slope (dB/oct)	PSD (g²/Hz)
	Operating vibration	5-350	0	0.0001
		350-500	-6	-
		500	-	0.00005
		(~0.21G _{nms})		
		Total Test time: 10 minutes		
		Frequency (Hz)	Slope (dB/oct)	PSD (g²/Hz)
		5.100	0	0.015
	Non-operating vibration	100-137	-6	-
		137-350	0	0.008
		350-500	-6	-
		500	-	0.0039
	Drop (out of box)	76cm on carpet, six-drop	sequence	
	Drop (in box)	N/A		
Approvals	CB, CE, FCC, cULus, ICES, EAC	, NOM-NYCE SCT, RCM, VC	CI, KC, BSMI	
Ergonomic compliance	TUVGS			



HP 125 USB-A Wired Mo	use (AMO only)		
Dimensions (H x L x W)	4.21 x 2.64 x 1.52 in (107 x 67 x 38.7 mmm)		
Weight	0.19lb (90g)		
Environmental	Operating temperature	50° to 122°F (10° to 50° C)	
	Non-operating temperature	-22° to 140°F (-30° to 60° C)	
	Operating humidity	10% to 90% (non-condensing at ambient)	
	Non-operating humidity	20% to 80% (non-condensing at ambient)	
	Operating shock	50 g, 6 surfaces	
	Non-operating shock	80 g, 6 surfaces	
	Operating vibration	2 g peak acceleration	
	Non-operating vibration	4 g peak acceleration	
Electrical	Operating voltage	5 VDC, +/-5%	
	Power consumption	12mA	
Mechanical	Connector	USB 2.0	
	Туре	3D mouse (3 keys and wheel)	
	Resolution	800, 1200, 1600 DPI	
	Sensor	Pixart PAN3606DL	
Tracking speed	Tracking acceleration	8G(max), 1G=9.8m/s2	
	Cable length	6 ft. (1.8 m)	
	Color	Jack Black	
Regulatory approvals	Compliant	UL, FCC, CE Mark, TUV GS, VCCI, BSMI, RCM, KCC	



Technical Specifications – Audio/Multimeda

AUDIO/MULTIMEDIA

Audio (from Center)	
Туре	Integrated Mics and Speakers
HD Stereo Codec	IMX8-Nano 4 Core DSP Processor (in center)
Audio I/O Ports	Type C Dual Path Connection
Internal Speaker Amplifier	Up to 23W stereo class-D amplifier for internal speaker only.
Internal Analog to Digital converter	Ultra-low power Quad-Channel microphone ADC
Sampling	Independent sampling rates for DAC's and ADC's; supports resolution at 24-bit; 48 kHz
Wavetable Syntheses	Yes - Uses OS soft wavetable
Analog Audio	Yes (not supported)
Internal Speaker	Yes

Technical Specifications – Power

POWER

HP Presence Mini Conferencing PC

Unit Environment and Operating Conditions

Temperature Range	Operating: 5°C ~35°C Non-Operating: -40°C ~66°C
Relative Humidity	Operating 5% to 90% relative humidity at max inlet temperature Non-Operating 5% to 90% relative humidity at max inlet temperature
Maximum Altitude (unpressurized)	Operating: 5000m Non-operating: 50,000 ft. (15240 m)

90W EPS 150W EF Operating Voltage Range 90Vac~2	240Vac
	240Vac
Rated Voltage Range 100Vac~	117
Rated Line Frequency 50HZ~60	
Operating Line Frequency 47HZ~63	HZ
Rated Input Current	
Rated Input Current with Energy65W≦1.Efficient* Power Supply90W≦1.150W≦2	2A
DC Output +19.5V	
required that con Less tha normal p	n 500 microamps of leakage current at 120 Vac with the ground wire disconnected, as for Non-patient Electrical Appliances and Equipment used in a patient care facility or cact patients in normal use. Per section 10.3.5.1. In 100 microamps of leakage current at 120 Vac with the ground wire intact with olarity, as required for Non-patient Electrical Appliances and Equipment used in a are facility or that contact patients in normal use. Per section 10.3.5.1.
Power cord length 6.0 ft. (1	83 m)
External Power Adapter External	power supply
90W: 13	3.5mm x 55mm x 30mm 2mm x 57mm x 30mm 50mm x 80mm x 40mm
Total Cord Length 6.0 ft. (1	83 m)



Technical Specifications – Power

The power supply shall comply with harmonic input current requirements as detailed in EN61000-3-2 and JEIDA MITI standards. The harmonic input current requirements must be met under the following operating conditions: Load Requirements: 50% and 100%

Input Voltage: 230Vac/50Hz.

For active power factor correction the power factor at 50% &100% loads shall be greater than 0.9 over the entire nominal input voltage range (100-127VAC and 200-240VAC).

Condition	Standard Efficiency	82/85/82%	85/88/85%	87/90/87%	90/92/89%	Input Voltage
10% of Rated Load	-	75%	81%	84%	86%	115Vac/60HZ
20% of Rated Load	-	82%	85%	87%	90%	115Vac/60HZ
50% of Rated	-	85%	88%	90%	92%	115Vac/60HZ
Load	PF>0.9	PF>0.9	PF>0.9	PF>0.9	PF>0.95	
100% of Rated	70%	82%	85%	87%	89%	115Vac/60HZ
Load	PF>0.9	PF>0.9	PF>0.9	PF>0.9	PF>0.9	230Vac/50HZ



Technical Specifications – Weights and Dimensions

WEIGHTS & DIMENSIONS

Mini PC Chassis (WxDxH)		6.97 x 6.89 x 1.35 in 177 x 175 x 34 mm
Mini PC System Volume		63.4 cu in
Mini PC System Weight		1.05L 3.13 lb
		1.42 kg
Box Dimensions (WxDxH)		
Platform box only		11.1 x 22.7 x 9.7 in 281 x 576 x 246 mm
Platform box with See Camera in large box		11.3 x 22.8 x 14.4 in 288 x 579 x 365 mm
Platform box with Audio Video Bar in large box		11.2 x 40.9 x 14.8 in 284 x 1039 x 376 mm
Product Kits Weights		
HP Presence Small Space Solution with Microsoft	Teams Rooms	
	Packaged Dimensions (LxWxH) Weight	22.3 x 10.8 x 9.1 in (566 x 273 x 231 mm) 11.02 lb (7.72 kg)
HP Presence Small Space Solution Plus AI Camera	5	
	Packaged Dimensions (LxWxH)	22.8 x 11.4 x 11.8 in (580 x 290 x 376 mm)
	Weight	25.84 lb (11.72 kg)
HP Presence Small Space Solution Plus AI Video B		
	Packaged Dimensions (LxWxH)	41.1 x 11.3 x 15.1 in (143 x 287 x 384 mm)
	Weight	35.64 lb (16.16 kg)
HP Presence Medium Space Solution with Microso		
	Weight	22.3 x 10.8 x 9.1 in (566 x 273 x 231 mm) 21.21 lb (9.62 kg)
HP Presence Medium Space Solution Plus AI Came	ra with Microsoft Teams Rooms	
	-	22.8 x 11.4 x 14.8 in (580 x 290 x 376 mm)
	Weight	30.04 lb (13.62 kg)
HP Presence Medium to Large Space Solution Plus		
	5	22.8 x 11.4 x 14.8 in (580 x 290 x 376 mm)
	-	30.86 lb (14 kg)
HP Presence Large Space Solution with Microsoft		
	-	22.3 x 10.8 x 9.1 in (566 x 273 x 231 mm)
	weight	11.02 lb (7.72 kg)



Technical Specifications – Miscellaneous Features

MISCELLANEOUS FEATURES

Management Features

- Advanced Configuration and Power Management Interface (ACPI). 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.
- Intel[®] Wired for Management support; industry wide initiative to make Intel[®] architecture based PCs, servers and mobile computers more inherently manageable out-of-the-box and over the network
- Dual State Power Button; acts as both an on/off button and a suspend-to-sleep button

Serviceability Features

- Dual colored power LED on front of computer to indicate either normal or fault condition
- Diagnostic LED Explanation Table:
 - Power LED will blink red 2 to 5 times, then blink white 2 or more times, then repeat (with beep tones for each blink initially):
 - 2 red + 2 white User must provide file for BIOS recovery (USB storage typically)
 - 2 red + 3 white User must enter a key sequence to proceed with recovery by policy
 - 2 red + 4 white BIOS recovery is in progress
 - 3 red + 2 white Memory could not be initialized
 - 3 red + 3 white Graphics adaptor could not be found
 - 3 red + 4 white Power supply failure / not connected
 - 3 red + 5 white Processor not installed
 - 3 red + 6 white Current processor does not support an enabled feature
 - 4 red + 2 white Processor has exceeded its temperature threshold / system thermal shutdown
 - 4 red + 3 white System internal temperature has exceeded its threshold
 - 5 red + 2 white System controller firmware is not valid
 - 5 red + 3 white System controller detected BIOS is not executing
 - 5 red + 4 white BIOS could not complete initialization / PCA failure
 - 5 red + 5 white System controller rebooted the system after a health or recovery timer triggered
- HP PC Hardware Diagnostics UEFI:
 - This utility 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
- System/Emergency ROM
- Flash ROM
- CMOS Battery Holder for easy replacement
- Flash Recovery with Video Configuration Record Software5 Aux Power LED on System PCA
- Processor ZIF Socket for easy Upgrade
- Over-Temp Warning on Screen (Requires IM Agents)
- DIMM Connectors for easy Upgrade
- Clear CMOS Button
- NIC LEDs (integrated) (Green & Amber)
- Dual Color Power and HD LED To Indicate Normal Operations and Fault Conditions
- Color coordinated cables and connectors
- Tool-less Hood Removal
- Front power switch
- System memory can be upgraded without removing the system board or any internal components
- Tool-less Hard Drive, CD & Diskette Removal
- Green Pull Tabs, and Quick Release Latches for easy Identification



Technical Specifications – Miscellaneous Features

Additional Features	Description
Mini Orientation	Product can be oriented as either a desktop (horizontal) or a tower (vertical)*
	*Requires optional stand.
Drive Lock	Implementation of the industry standard ATA Security feature set. When enabled, it prevents software access to user data on the drive until one or two user-defined passwords are provided.
Boot Sectors Protection	MBR and GPT sectors of the hard drive are critical to booting the operating system. By saving the MBR or GPT data (depending on the how the OS was installed), the BIOS will be able to monitor for changes and allow the user to override them with the backup copy at boot-up.
Drive Protection System	DPS Access through F10 Setup during Boot (for SATA hard drive only)
	A diagnostic hard drive self- test. It scans critical physical components and every sector of the hard drive for physical faults and then reports any faults to the user
	Running independently of the operating system, it can be accessed through a Windows-based diagnostics utility or through the computer's setup procedure. It produces an evaluation on whether the hard drive is the source of the problem and needs to be replaced
	The system expands on the Self-Monitoring, Analysis, and Reporting Technology (SMART), a continuously running systems diagnostic that alerts the user to certain types of failures
SMART Technology (Self-Monitoring, Analysis and Reporting Technology)	Allows hard drives to monitor their own health and to raise flags if imminent failures were predicted
SMART I - Drive Failure Prediction	Predicts failures before they occur. Tracks fault prediction and failure indication parameters such as re-allocated sector count, spin retry count, calibration retry count
SMART II - Off-Line Data Collection	By avoiding actual hard drive failures, SMART hard drives act as "insurance" against unplanned user downtime and potential data loss from hard drive failure
SMART III - Off-Line Read Scanning with Defect Reallocation	IOEDC: I/O Error Detection Circuitry

SMART IV - End-to-End CRC for hard drives Detects errors in Read/Write buffers on HDD cache RAM



QuickSpecs

After Market Options

AFTER MARKET OPTIONS

HP Presence Accessories	<u>Part Number</u>
HP Presence Audio Video Bar	4V974AA
HP Presence See 4K AI Camera	4V975AA
HP Presence Talk Satellite Microphones (2)	4V976AA
HP Presence No Audio Control Center	4V978AA
HP Presence 15m Type-C Cable Kit	4V972AA
HP Presence 30m Type-C Cable Kit	4V973AA
HP Presence Control Table Mount Kit	4V979AA
HP Presence See Table Lock Kit	54N70AA
HP Presence Control Table Wall Mount Kit	4V980AA

HP Large Format Displays	<u>Part Number</u>
HP LD5513t Large Format Interactive Display	50J08AA#AC3
HP LD5513t Large Format Interactive Display	518R8AA#AC3
HP LD7513t Large Format Interactive Display	518W7AA#AC3
HP LD8613t Large Format Interactive Display	50R18AA#AC3
HP LD6502t Large Format Interactive Display	518R4AA#AC3
HP LD7502t Large Format Interactive Display	518S1AA#AC3
HP LD8502t Large Format Interactive Display	50R15AA#AC3

Mini Accessories	<u>Part Number</u>
HP Desktop Mini 90W Power Supply Kit	L4R65AA
HP Desktop Mini LockBox V2	3EJ57AA
HP Desktop Mini Security/Dual VESA Sleeve v3 with Power Supply Holder	13L68AA
HP Desktop Mini Vertical Chassis Stand	<u>G1K23AA</u>
HP Quick Release Bracket 2	<u>6KD15AA</u>

Data Storage Drives	<u>Part Number</u>
HP PCIe NVME TLC 256GB SSD M.2 Drive	1CA51AA

Input Devices	<u>Part Number</u>
HP Desktop Wired 320K Keyboard	9SR37AA
HP Desktop Wired 320M Mouse	9VA80AA
HP Desktop Wired 125 Keyboard	266C9AA
HP Desktop Wired 125 Mouse	265A9AA



QuickSpecs

After Market Options

System Memory	Part Number
HP 4GB DDR4-2666 SODIMM	3TK86AA
HP 8GB DDR4-2666 SODIMM	3TK88AA
HP 4GB DDR4-3200 SODIMM	13L79AA
HP 8GB DDR4-3200 SODIMM	13L77AA

Security Devices	<u>Part Number</u>
HP Keyed Cable Lock 10mm	T1A62AA
HP Master Keyed Cable Lock 10mm	T1A63AA
HP Sure Key Cable lock	6UW42AA



Change Log

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Version History	Action	Description of Change
From v1 to v2		
From v2 to v3		
From v3 to v4		
From v4 to v5		
From v5 to v6		
	From v1 to v2 From v2 to v3 From v3 to v4 From v4 to v5	From v1 to v2 From v2 to v3 From v3 to v4 From v4 to v5