## Overview

**HP Elite Slice G2 with Microsoft Teams Rooms**

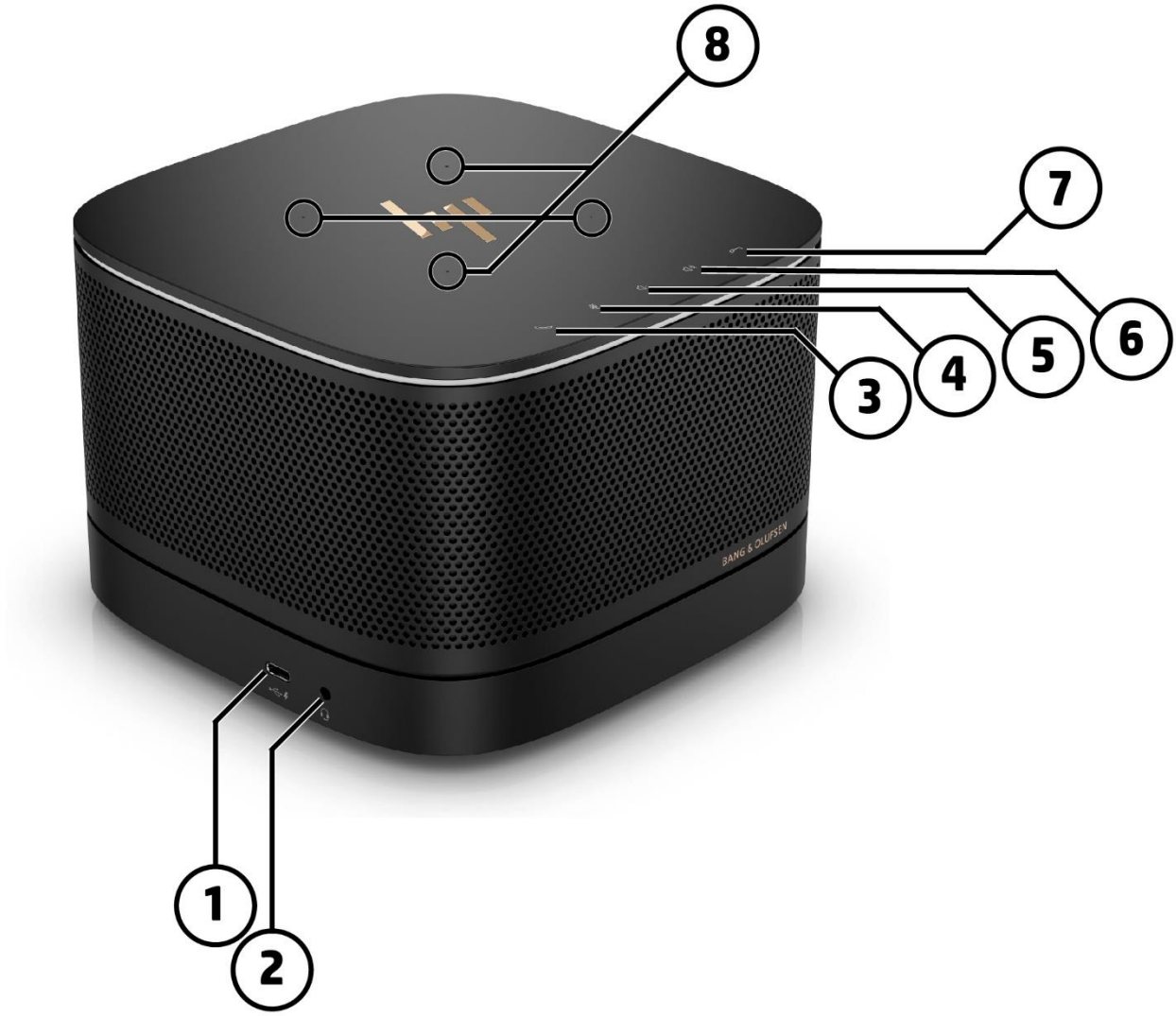



1. HP Center of Room Control
2. HP Elite Slice G2* platform
3. HP Video Ingest Module

*Audio equipment or speakers are required and sold separately.

## Overview

**HP Elite Slice G2 with Microsoft Teams Rooms**




**Side Ports/Collaboration buttons**

1. USB Type-C™ 3.1 Gen 1 USB port
2. Audio-out (headphone)/audio-in (microphone)
3. Call
4. Mute
5. Volume down
6. Volume up
7. Hang up
8. Microphones

## Overview

**HP Elite Slice G2 with Microsoft Teams Rooms**




**Back Connectors**

1. Power button
2. Power connector
3. RJ-45 (network) jack
4. USB Type-C™ 3.1 Gen 1 USB port (60 W input, DisplayPort™ Alternate Mode)
5. 2 USB Type A 3.1 Gen 1 ports
6. Dual-Mode DisplayPort™ (DP++)
7. HDMI port
8. UltraSlim cable lock slot

Features

## At A Glance

- Teams Rooms/Skype Rooms Systems conferencing solution built on Windows IoT 64 Enterprise
- Designed for small and medium rooms with any 3rd party USB AV accessories needed
- Includes HP Audio featuring side firing speakers and up-facing mics. Capacitive touch keys located on top for Call or Answer/ Mute/Volume Up/ Volume Down/ Hang up/End or Reject support.
- Center of Room Control Display provides easy management of the meeting to start/add people/share contact/end meeting functions without a separate PC
- Video Ingest Module is included so that meeting attendees in the room can easily share content thru an HDMI cable input
- HP Sure Start 3.0 with Dynamic Protection
- New HP Cable and Port Cover adapter secures the ports, prevents tampering, and provides cable management
- Windows 10 IoT 64 Enterprise to have a dedicated OS to run the conferencing software
- UEFI BIOS developed and engineered by HP
- Intel® Q170 chipset supporting Intel® Peripheral Control Hub for 7th Gen Core™ Processors, featuring integrated Intel HD Graphics 630 and Intel® vPro™ Technology
- Intel® Ethernet Connection I219LM GbE LOM integrated network connection (recommended)
- Supports Intel® AC Wireless with vPro™ Technology
- DDR4-2400 (up to 32GB) Synchronous Dynamic Random-Access Memory (SDRAM)
- Dual-independent monitor support via HDMI and digital DisplayPort™ video interfaces
    - Dual HDMI ports supported with the HP DisplayPort to HDMI True 4K Adapter
- High efficiency energy saving power supply
- ENERGY STAR certified. EPEAT® 2019 registered where applicable. EPEAT® registration varies by country. See http://www.epeat.net for registration status by country.[1]
- Low halogen
- 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
- VESA Plate (Optional)

**1.** Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information.
***NOTE:** Available on HP Elite products equipped with Intel® 7th generation processors.

**NOTE: See important legal disclosures for all listed specs in their respective features sections.**

Features

## OPERATING SYSTEMS AND TOPOLOGY REQUIREMENTS

### Preinstalled

Windows
10 IoT 64 Enterprise CBB[1]

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

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

- 1. Online Deployment (o365) - 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

## Features

### PROCESSORs

**7th Generation Intel® Core™ processors**

Intel® Core™ i7-7700T with Intel® HD Graphics 630 Up to 3.8 GHz Max. Turbo Frequency (2.9 GHz base frequency) 8 MB cache, 4 cores, 8 threads, supports Intel® vPro™ Technology

Intel® Core™ i5-7500T with Intel® HD Graphics 630, Up to 3.3 GHz Max. Turbo Frequency (2.7 GHz base frequency) 6 MB cache, 4 cores, 4 threads, supports Intel® vPro™ Technology

### GRAPHICS

Integrated
Intel® HD Graphics 630 with GT2 support[5]

5. HD content required to view HD images.

### MEMORY

**Both slots are customer accessible / upgradeable, Supports Dual Channel Memory**

| Type | Maximum | # of Slots |
|---|---|---|
| DDR4-2400 (Transfer rates up to 2400 MT/s) | 32 GB capacity | 2 DIMM |

**Configurations**

8 GB DDR4-2400 SODIMM (2x4GB) (Dual Channel)[20]
16 GB DDR4-2400 SODIMM (2x8GB) (Dual Channel)

20. 8 GB DDR4-2400 SDRAM: up to 32 GB thru option kit(s).

### STORAGE / DRIVES

**Solid State Drives M.2 NVMe[6]**

256 GB PCIe NVMe M.2 Solid State Drive
128 GB PCIe NVMe M.2 Solid State Drive

**SATA Solid State Drives 2.5"[6]**

256 GB SSD TLC SATA Drive
128 GB SSD TLC SATA Drive

6. For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB (for Windows 10) is reserved for system recovery software.

### NETWORKING

**LAN**

Wired Intel® i219LM GbE LOM

**WLAN** (optional and must be configured at purchase)[7]

Intel® Dual Band Wireless-AC 8260 802.11ac 2x2 +Bluetooth® 4.2 vPro ™
Intel® Dual Band Wireless-AC 7265 802.11ac 2x2 +Bluetooth® 4.2 (Non-vPro)

## Features

7. Wireless cards are optional or add-on features and requires separately purchased wireless access point and internet service. Availability of public wireless access points limited.

### AUDIO / MULTIMEDIA

Conexant CX7501
1x Universal audio jack
Four speakers with dual passive radiator stereo sound system
HP Audio Module 2.0
Four Digital Microphones

### KEYBOARDS AND POINTING DEVICES (OPTIONAL)

**Keyboards[8]**
HP Business Slim USB Keyboard (China Only)
HP Business Slim USB Keyboard

**Mice[8]**
HP USB Optical Mouse
HP Mouse Pad
HP USB Mouse (China only)

8. Keyboards and mice are sold separately or as an optional feature.

### PORTS

**External I/O Ports**
1 Universal audio jack (with re-tasking) connector
1 USB Type-C™ (USB 3.1 Gen 1, 15W output) connector
1 USB Type-A (USB 3.1, charging) connector
1 USB Type-A (USB 3.1, S4/S5 wake) connector
1 USB Type-C™ (Alternate Mode DP, USB 3.1 Gen 1, 15W output, 60W input) connector
1 DisplayPort™ connector
1 HDMI connector (optional HP DisplayPort™)
1 RJ-45 connector
1 DC-in 7.4mm barrel

**Internal I/O Ports**
1. M.2 nVME

1 SATA

## Features

### SLOTS

**Integrated**

1 M.2 2230 PCIe for WLAN

1 M.2 2280 PCIe for NVMe SSD

### MODULES

**Included**

HP Cable and Port cover

HP Center of Room Control[9,10]

HP Video Ingest Module

**Optional**

VESA Mount[11]

Wireless Display Module

9. Dimensions: Width (X) 301.75mm or 11.88 in; Height(Y) 219.75mm or 8.65 in; Depth (Z) 80.8mm or 3.17 in; Weight: 1040 grams or 2.3 lbs

10. 31.2 cm (12.3") diagonal FHD LCD touch screen (1920 x 1280)

11. Only can be purchased as an optional feature at time of sale

### SOFTWARE COMPONENTS AND APPLICATIONS WITH WINDOWS

**BIOS**

Absolute Persistence Module[12]

**Software**

Microsoft Teams Rooms/Skype Room Systems

HP Connection Optimizer

HP Notifications

12. Absolute agent is shipped turned off, and will be activated when customers activate a purchased subscription. Subscriptions can be purchased for terms ranging multiple years. Service is limited, check with Absolute for availability outside the U.S. The Absolute Recovery Guarantee is a limited warranty. Certain conditions apply. For full details visit: http://www.absolute.com/company/legal/agreements/computrace-agreement. Data Delete is an optional service provided by Absolute Software. If utilized, the Recovery Guarantee is null and void. In order to use the Data Delete service, customers must first sign a Pre-Authorization Agreement and either obtain a PIN or purchase one or more RSA SecurID tokens from Absolute Software.

## Features

### SECURITY MANAGEMENT

TPM 2.0 Embedded Security Chip shipped with Windows 10 (Common Criteria EAL4+ Certified)(FIPS 140-2 Level 2 Certified)
HP Sure Start 3.0*

***NOTE:** Available on HP Elite products equipped with Intel® 7th generation processors.

### POWER SUPPLY

90W AC adapter[14]
Up to 85% efficient

14. All power supplies are not available in every region.

### DIMENSIONS AND WEIGHT (CONFIGURED WITH 1 HDD)

| | |
|---|---|
| Chassis (H x W x D) | 6.5 x 6.5 x 4.4 in (165 x 165 x 111mm) |
| Chassis with Video Ingest | 6.5 x 6.5 x 5.39 in (165 x 165 x 137mm) |
| Chassis with Optional Video Ingest and Optional Vesa Plate | 6.5 x 6.5 x 5.56 in (165 x 165 x 141mm) |
| System Weight (without optional devices) | 3.36 lb / 1.52 kg |

### PACKAGING DIMENSIONS AND WEIGHT

| | |
|---|---|
| Dimensions | 23.5 x 10.75 x 8 in (596.9 x 273.05 x 203.2 mm) |
| Weight | 14.71 lb / 6.67 kg |

### COLOR

Sparkle black color

## Features

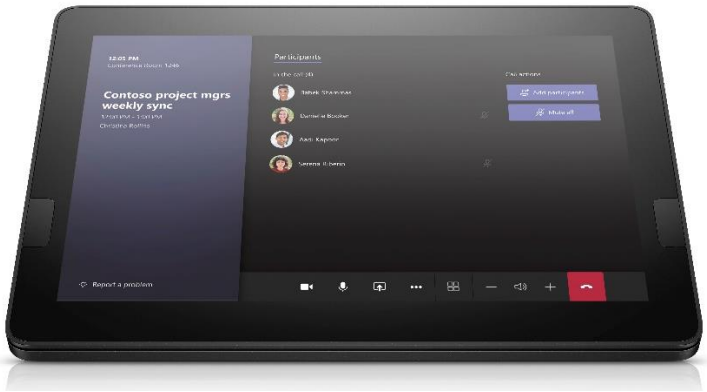
### HP VIDEO INGEST MODULE



**Functionality**

- 1080 Resolution support
- 60Hz refresh
- 1 x HDMI 1.4 input port
- Works in MS SRS with Present option (button)
- Display input to local display and meeting

### HP CENTER OF ROOM CONTROL




**Functionality**

- See full Room Calendar for scheduled calls
- Initiate ad-hoc calls, dial out, or invite participants
- Toggle Skype views with Gallery, content, maximize 2x LDF for conferencing
- Fully replace the phone in the conference room
- Tool-less Type-C cable installation with stand cover module

**Display**

- 12.3” diagonal screen
- Type-C interface
- Dual orientation
- 1440 x 960 resolution
- 3:2 aspect ratio
- 10-point touch capable

**Orientations**

- 25 degrees horizontal
- 48 degrees horizontal

**Sensor**

- Pyro-electric IR-Detectors

## Features

### PORT COVER



**Functionality**

- Tamper-proofing of cables from the back of Slice
- Extends Power, 2 USB Type-A, RJ45, DisplayPort, and HDMI cables for connections under the table
- Clean single condensed cable for single group of cables extended from Slice
- Separate Type-C cable for easy movement of Center Of Room Control display on the table
- Cover to hide back connections to Slice

### WIRELESS DISPLAY MODULE (OPTIONAL)



**Specs**

- Only supported with HDMI connector
- 1080p HD resolution
- Only supported on table top
- Transmitter and Receiver paired at the factory
- Pair button included in case needed later
- Light status included to show paired devices
- 60Ghz band is used – signal is blocked by walls and confined to conference room
- Wireless Display Module is not support in all countries

## Features

### SERVICE AND SUPPORT

On-site Warranty: Protected by an HP standard three-year (3-3-3) or one-year (1-1-1) limited warranty (varies by region). Certain restrictions and exclusions apply. Limited warranty delivers next business day service for parts and labor and includes Complimentary Limited Technical Support. One-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

**NOTE 1:** Terms and conditions may vary by country. Certain restrictions and exclusions apply. Other warranty variations may be offered in your region.
**NOTE 2:** 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.
**NOTE 3:** Technical support applies only to HP-configured and third-party HP qualified hardware and software.

### COUNTRY OF ORIGIN

China

Technical Specifications - Audio

## HIGH DEFINITION AUDIO

| Audio by Bang & Olufsen | |
|---|---|
| **Type** | Four speakers with dual passive radiator stereo sound system |
| **HD Stereo Codec** | 1x Universal audio jack (w/ re-tasking) |
| **Audio I/O Ports** | High Definition Audio |
| **Internal Speaker Amplifier** | TI TAS5754M |
| **Sampling** | Conexant CX7501 |
| **Analog Audio** | 1x Universal audio Jack |
| **# of Channels** | Yes – Uses OS soft wavetable |
| **Internal Speaker** | Yes – four speakers |
| **DAC Sampling Rates** | 44.1 kHz/48 kHz/96 kHz |
| **ADC Sampling Rates** | 44.1 kHz/48 kHz/96 kHz |

Technical Specifications - Graphics

## GRAPHICS

| Intel® HD Graphics 630 (integrated) | | | |
|---|---|---|---|
| DisplayPort™ 1.2 | Multimode capable; supports HDCP, DisplayPort™Audio (2 streams), HBR2 link rates and Multi-Stream Technology for a maximum of 3 displays (including the integrated panel) | | |
| Memory | The BIOS has options for selecting the dedicated memory size of 128MB, 256MB or 512MB<br>Additional 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 Graphics Memory | Microsoft Windows 7 | Windows 8.1 | Windows 10 |
| | Up to 1.7GB | Up to 1.8GB | >4 GB |
| | Note: the actual amount of maximum graphics memory can be less than the amounts listed above depending upon your computer's configuration. | | |
| Maximum Color Depth | 32 bits/pixel | | |
| Graphics/Video API Support | 6th Generation Core™ processors:<br>• Next Generation Intel® Clear Video Technology HD Support is a collection of video playback and enhancement features that improve the end user's viewing experience<br>  ○ Encode/transcode HD content<br>  ○ Playback of high definition content including Blu-ray Disc<br>  ○ Superior image quality with sharper, more colorful images<br>• DirectX Video Acceleration (DXVA) support for accelerating video processing<br>  ○ Full AVC/VC1/MPEG2/HEVC HW Decode<br>• Advanced Scheduler 2.0, 1.0<br>• Windows 7, Windows 8.1, Windows 10, Linux OS Support<br>• DirectX 12.1<br>• OpenGL 4.4<br>• Open CL 1.2 (Intel® HD Graphics 510)<br>• Open CL 1.2/2.0 (Intel® HD Graphics 530) | | |

## Technical Specifications - Graphics

**Supported Display Resolutions and Refresh Rates**

Note: other resolutions may be available but are not recommended as they may not have been tested and qualified by HP. For All in One platforms, resolutions higher than the integrated panel resolution are not supported on the integrated panel.

| Resolution | Refresh Rate | DisplayPort™ 1.2 | HDMI | Standard |
|---|---|---|---|---|
| 640 x 480 | 60, 75, 85 | X | X | VESA DMT, CVT 0.31M3 |
| 720 x 400 | 70 | X | X | IBM VGA |
| 800 x 600 | 60, 75, 85 | X | X | VESA DMT, CVT0.48M3 |
| 1024 x 768 | 60, 75, 85 | X | X | VESA DMT, CVT 0.79M3 |
| 1152 x 864 | 60, 75, 85 | X | X | VESA DMT, CVT 0.83MA |
| 1280 x 720 | 60, 75, 85 | X | X | VESA DMT, CVT 0.92M9, CEA-770.3 |
| 1280 x 768 | 60, 60RB, 75, 85 | X | X | VESA DMT, CVT 0.98M9/0.98M9-R |
| 1280 x 800 | 60, 75, 85 | X | X | VESA DMT |
| 1280 x 960 | 60, 75, 85 | X | X | VESA DMT |
| 1280 x 1024 | 60, 75, 85 | X | X | VESA DMT, CVT 1.31M4 |
| 1366 x 768 | 60, 60RB | X | X | VESA DMT |
| 1440 x 900 | 60, 60RB | X | X | VESA DMT |
| 1600 x 900 | 60, 60RB, 75, 85 | X | X | VESA DMT |
| 1680 x 1050 | 60, 60RB, 75 | X | X | VESA DMT, CVT 1.76MA/1.76MA-R |
| 1920 x 1080 | 60 | X | X | VESA DMT, CVT 2.07M9, SMPTE 274M |
| 1920 x 1200 | 60, 60RB, 75, 85 | X | X | DMT, CVT 2.30MA/2.30MA-R |
| 1600 x 1200 | 60, 75, 85 | X | X | VESA DMT, 1.92M3 |
| 1920 x 1440 | 60, 75, 85 | X | X | VESA DMT, CVT 2.76M3 |
| 2048 x 1536 | 60,75 | X | X | CVT 3.15M3 |
| 2560 x 1440 | 59.951 | X | X | CVT 3.69M9-R |
| 2560 x 1600 | 60, 60RB | X | X | VESA DMT, CVT 4.10MA/4.10MA-R |
| 3440 x 1440 | 60 | X | X | VESA DMT, CVT 0.31M3 |
| 3440 x 1440 | 75, 85 | | | VESA DMT, CVT 0.31M3 |
| 3840 x 2160 | 24 | X | X | CVT-RBv1/v2 (8.29M9-R), SMPTE 274M |
| 3840 x 2160 | 25 | X | X | CVT-RBv1/v2 (8.29M9-R), SMPTE 274M |
| 3840 x 2160 | 30 | X | X | CVT-RBv1/v2 (8.29M9-R), SMPTE 274M |
| 3840 x 2160 | 50 | | X | CVT-RBv1/v2 (8.29M9-R), SMPTE 274M |

## Technical Specifications - Graphics

| | | | | |
|---|---|---|---|---|
| 3840 x 2160 | 60 | | X | CVT-RBv1/v2 (8.29M9-R), SMPTE 274M |
| 4096 x 2160 | 24 | X | X | CVT-RBv1/v2 (8.85M-R), SMPTE 274M |
| 4096 x 2160 | 25 | X | X | CVT-RBv1/v2 (8.85M-R), SMPTE 274M |
| 4096 x 2160 | 30 | X | X | CVT-RBv1/v2 (8.85M-R), SMPTE 274M |
| 4096 x 2160 | 50 | | X | CVT-RBv1/v2 (8.85M-R), SMPTE 274M |
| 4096 x 2160 | 60 | | X | CVT-RBv1/v2 (8.85M-R), SMPTE 274M |
| 1920 x 1080 | 60 | X | X | VESA (SMPTE 274M) |
| 1920 x 1080 | 50 | X | X | SMPTE 274M |
| 1920 x 1080 | 30 | X | X | SMPTE 274M |
| 1920 x 1080 | 24 | X | X | SMPTE 274M |
| 1280 x 720 | 60 | X | X | VESA (CEA-770.3) |
| 1280 x 720 | 50 | X | X | SMPTE 296M |
| 720 x 480 | 60 | X | X | MHL (CEA-770.2) |
| 720 x 576 | 50 | X | X | ITU-R BT.1358 |
| 640 x 480 | 60 | X | X | CEA (VESA DMT) |

Technical Specifications - Storage

## STORAGE

| | | |
|---|---|---|
| **128GB SATA 2.5" (Non-SED) Solid State Drive** | | |
| **Unformatted Capacity** | 256 GB | |
| **Architecture** | TLC NAND Flash | |
| **Interface** | SATA 3.2 (6.0 Gb/s) | |
| **Form Factor** | 2.5 inch | |
| **Dimensions (W x D x H)** | 6.98 x 10.05 x 0.7 cm | |
| **Weight** | 31g | |
| **Bandwidth Performance** | Sustained Sequential Read: | Sustained Sequential Read: |
| | Sustained Sequential Write: | Sustained Sequential Write: |
| | Random Read: | Random Read: |
| | Random Write: | Random Write: |
| **Power** | DC power requirement: | DC power requirement: |
| | Total power consumption: | Total power consumption: |
| **Useful Drive Life** | 72TB written, up to 40GB/day for 5 years | |
| **Environmental** (all conditions, non-condensing) | Operating Temperature: | Operating Temperature: |
| | Relative Humidity: | Relative Humidity: |
| | Shock: | Shock: |

**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 10) of system disk is reserved for the system recovery software.

Technical Specifications - Storage

### 128 GB M.2 2280 PCIe NVMe SSD

| | |
|---|---|
| **Drive Weight** | < 10g |
| **Capacity** | 128GB |
| **Height** | 2.38mm |
| **Length** | 80mm |
| **Width** | 22mm |
| **Interface** | PCIE Gen3 |
| **Performance** | Up to Random Read/Write = 60K/50K IOPS |
| **Maximum Sequential Read** | Up to 1400MB/s |
| **Maximum Sequential Write** | Up to 395MB/s |
| **Logical Blocks** | 250,069,680 |
| **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 10) of system disk is reserved for the system recovery software.

### 256 GB M.2 2280 PCIe NVMe SSD

| | |
|---|---|
| **Drive Weight** | < 10g |
| **Capacity** | 256GB |
| **Height** | 2.38mm |
| **Length** | 80mm |
| **Width** | 22mm |
| **Interface** | PCIE Gen3 |
| **Performance** | Up to Random Read/Write = 120K/170K IOPS |
| **Maximum Sequential Read** | Up to 1600MB/s |
| **Maximum Sequential Write** | Up to 780MB/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 10) of system disk is reserved for the system recovery software.

Technical Specifications – Networking

## NETWORKING

| Intel 8260 802.11a/b/g/n/ac (2x2) WiFi and Bluetooth® 4.2 Combo vPro | | |
|---|---|---|
| | **Wireless LAN Standards** | IEEE 802.11a<br>IEEE 802.11b<br>IEEE 802.11g<br>IEEE 802.11n<br>IEEE 802.11ac |
| | **Interoperability** | Wi-Fi certified |
| | **Frequency Band** | 802.11b/g/n<br>• 2.402 – 2.482 GHz<br>802.11a/n<br>• 4.9 – 4.95 GHz (Japan)<br>• 5.15 – 5.25 GHz<br>• 5.25 – 5.35 GHz<br>• 5.47 – 5.725 GHz<br>• 5.825 – 5.850 GHz |
| | **Data Rates** | • 802.11b: 1, 2, 5.5, 11 Mbps<br>• 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps<br>• 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps<br>• 802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz)<br>• 802.11ac : MCS0 ~ MCS9, (1SS, and 2SS) (20MHz, 40MHz, and 80MHz) |
| | **Modulation** | Direct Sequence Spread Spectrum<br>BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM |
| | **Security**[1] | • IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g mode only<br>• AES-CCMP: 128 bit in hardware<br>• 802.1x authentication<br>• WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES.<br>• WPA2 certification<br>• IEEE 802.11i<br>• Cisco Certified Extensions, all versions through CCX4 and CCX Lite<br>• WAPI |
| | **Network Architecture Models** | Ad-hoc (Peer to Peer)<br>Infrastructure (Access Point Required) |
| | **Roaming** | IEEE 802.11 compliant roaming between access points |
| | **Output Power**[2] | • 802.11b : +16dBm minimum<br>• 802.11g : +14dBm minimum<br>• 802.11a : +14dBm minimum<br>• 802.11n HT20(2.4GHz) : +13dBm minimum<br>• 802.11n HT40(2.4GHz) : +13dBm minimum<br>• 802.11n HT20(5GHz) : +12dBm minimum<br>• 802.11n HT40(5GHz) : +12dBm minimum<br>• 802.11ac 80MHz(5GHz) : +11dBm minimum |
| | **Power Consumption** | • Transmit mode2.0 W<br>• Receive mode1.6 W<br>• Idle mode (PSP)180 mW (WLAN Associated)<br>• Idle mode50 mW (WLAN unassociated)<br>• Connected Standby 10mW<br>• Radio disabled8 mW |

## Technical Specifications – Networking

| | | | |
|---|---|---|---|
| | **Power Management** | ACPI and PCI Express compliant power management<br>802.11 compliant power saving mode | |
| | **Receiver Sensitivity**[3] | 802.11b, 1Mbps : -93.5dBm maximum<br>802.11b, 11Mbps : -84dBm maximum<br>802.11a/g, 6Mbps : -86dBm maximum<br>802.11a/g, 54Mbps : -72dBm maximum<br>802.11n, MCS07 : -67dBm maximum<br>802.11n, MCS15 : -64dBm maximum<br>802.11ac, MCS0 : -84dBm maximum<br>802.11ac, MCS9 : -59dBm maximum | |
| | **Antenna type** | High efficiency antenna with spatial diversity, mounted in the display enclosure<br>Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth® communications | |
| | **Form Factor** | PCI-Express M.2 MiniCard | |
| | **Dimensions** | Type 2230 : 2.3 x 22.0 x 30.0 mm | |
| | **Weight** | Type 2230 : 2.8g | |
| | **Operating Voltage** | 3.3v +/- 9% | |
| | **Temperature** | Operating<br>Non-operating | 14° to 158° F (–10° to 70° C)<br>–40° to 176° F (–40° to 80° C) |
| | **Humidity** | Operating<br>Non-operating | 10% to 90% (non-condensing)<br>5% to 95% (non-condensing) |
| | **Altitude** | Operating<br>Non-operating | 0 to 10,000 ft (3,048 m)<br>0 to 50,000 ft (15,240 m) |
| | **LED Activity** | LED Amber – Radio OFF; LED White – Radio ON | |
| **HP Integrated Module with Bluetooth 4.0/4.1/4.2 Wireless Technology** | | | |
| | **Bluetooth® Specification** | 4.0/4.1/4.2 Compliant | |
| | **Frequency Band** | 2402 to 2480 MHz | |
| | **Number of Available Channels** | Legacy : 0~79 (1 MHz/CH)<br>BLE : 0~39 (2 MHz/CH) | |
| | **Data Rates and Throughput** | Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps<br>BLE : 1 Mbps data rate; throughput up to 0.2 Mbps<br>Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels<br>Legacy : Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5) | |
| | **Transmit Power** | The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR. | |
| | **Power Consumption** | Peak (Tx) 330 mW<br>Peak (Rx) 230 mW<br>Selective Suspend 17 mW | |
| | **Electrical Interface** | USB 2.0 compliant | |
| | **Bluetooth® Software Supported Link Topology** | Microsoft Windows Bluetooth® Software | |
| | **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<br>Low Voltage Directive IEC950<br>UL, CSA, and CE Mark | |
| | **Bluetooth® Profiles Supported** | BT4.1-ESR 5/6/7 Compliance<br>LE Link Layer Ping | |

## Technical Specifications – Networking

| | | |
|---|---|---|
| | | LE Dual Mode<br>LE Link Layer<br>LE Low Duty Cycle Directed Advertising<br>LE L2CAP Connection Oriented Channels<br>Train Nudging & Interlaced Scan<br>BT4.2 ESR08 Compliance<br>LE Secure Connection- Basic/Full<br>LE Privacy 1.2 –Link Layer Privacy<br>LE Privacy 1.2 –Extended Scanner Filter Policies<br>LE Data Packet Length Extension<br>FAX Profile (FAX)<br>Basic Imaging Profile (BIP)2<br>Headset Profile (HSP)<br>Hands Free Profile (HFP)<br>Advanced Audio Distribution Profile (A2DP) |

| **Intel 7265 802.11ac 2x2 DualBand Combo PCIe x1 Card** | | |
|---|---|---|
| | **Wireless LAN Standards** | IEEE 802.11a<br>IEEE 802.11b<br>IEEE 802.11g<br>IEEE 802.11n<br>IEEE 802.11ac |
| | **Interoperability** | Wi-Fi certified |
| | **Frequency Band** | 802.11b/g/n<br>• 2.402 – 2.482 GHz<br>Note:<br>The FCC has declared as of January 1, 2015 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.<br>802.11a/n<br>• 4.9 – 4.95 GHz (Japan)<br>• 5.15 – 5.25 GHz<br>• 5.25 – 5.35 GHz<br>• 5.47 – 5.725 GHz<br>• 5.825 – 5.850 GHz<br>Note: Indonesia no support this band) |
| | **Data Rates** | • 802.11b: 1, 2, 5.5, 11 Mbps<br>• 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps<br>• 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps<br>• 802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz)<br>• 802.11ac : MCS0 ~ MCS9, (1SS, and 2SS) (20MHz, 40MHz, and 80MHz) |
| | **Modulation** | Direct Sequence Spread Spectrum<br>BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM |
| | **Security[1]** | • IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g mode only<br>• AES-CCMP: 128 bit in hardware<br>• 802.1x authentication<br>• WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES.<br>• WPA2 certification<br>• IEEE 802.11i |

## Technical Specifications – Networking

| | | | |
|---|---|---|---|
| | | • Cisco Certified Extensions, all versions through CCX4 and CCX Lite<br>• WAPI | |
| | **Network Architecture Models** | Ad-hoc (Peer to Peer)<br>Infrastructure (Access Point Required) | |
| | **Roaming** | IEEE 802.11 compliant roaming between access points | |
| | **Output Power**[2] | • 802.11b : +16dBm minimum<br>• 802.11g : +14dBm minimum<br>• 802.11a : +14dBm minimum<br>• 802.11n HT20(2.4GHz) : +13dBm minimum<br>• 802.11n HT40(2.4GHz) : +13dBm minimum<br>• 802.11n HT20(5GHz) : +12dBm minimum<br>• 802.11n HT40(5GHz) : +12dBm minimum<br>• 802.11ac 80MHz(5GHz) : +11dBm minimum | |
| | **Power Consumption** | Transmit: 2.0 W (max)<br>Receive: 1.6 W (max)<br>Idle mode (PSP): 180 mW (WLAN Associated)<br>Idle mode: 60 mW (WLAN unassociated)<br>Radio disabled: 30 mW | |
| | **Power Management** | ACPI and PCI Express compliant power management<br>802.11 compliant power saving mode | |
| | **Receiver Sensitivity**[3] | 802.11b, 1Mbps : -94dBm maximum<br>802.11b, 11Mbps : -86dBm maximum<br>802.11g, 6Mbps : -88dBm maximum<br>802.11g, 54Mbps : -74dBm maximum<br>802.11a, 6Mbps : -86dBm maximum<br>802.11a, 54Mbps : -72dBm maximum<br>802.11n, MCS07 : -69dBm maximum<br>802.11n, MCS15 : -66dBm maximum<br>802.11ac, 1SS, MCS-0 : -86dBm maximum<br>802.11ac, 1SS, MCS-9 : -61dBm maximum<br>802.11ac, 2SS, MCS-0 : -83dBm maximum<br>802.11ac, 2SS, MCS-9 : -58dBm maximum | |
| | **Antenna type** | High efficiency antenna with spatial diversity, mounted in the display enclosure<br>Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth® communications | |
| | **Form Factor** | PCI-Express M.2 MiniCard | |
| | **Dimensions** | Type 2230 : 2.3 x 22.0 x 30.0 mm<br>Or<br>Type 1630 : 2.3 x 16.0 x 30.0 mm | |
| | **Weight** | Type 2230 : 2.8g<br>Or<br>Type 1630 : 2g | |
| | **Operating Voltage** | 3.3v +/- 9% | |
| | **Temperature** | Operating<br>Non-operating | 14° to 158° F (–10° to 70° C)<br>–40° to 176° F (–40° to 80° C) |
| | **Humidity** | Operating<br>Non-operating | 10% to 90% (non-condensing)<br>5% to 95% (non-condensing) |
| | **Altitude** | Operating<br>Non-operating | 0 to 10,000 ft (3,048 m)<br>0 to 50,000 ft (15,240 m) |
| | **LED Activity** | LED Amber – Radio OFF; LED White – Radio ON | |
| | 1. Check latest software/driver release for updates on supported security features. | | |

## Technical Specifications – Networking

| | | |
|---|---|---|
| | 2. Maximum output power may vary by country according to local regulations.<br>3. 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). | |
| **HP Integrated Module with Bluetooth® 4.0+EDR Wireless Technology** | | |
| | **Bluetooth® Specification** | 4.0+EDR Compliant |
| | **Frequency Band** | 2402 to 2480 MHz |
| | **Number of Available Channels** | 79 (1 MHz) available channels |
| | **Data Rates and Throughput** | 3 Mbps data rate; throughput up to 2.17 Mbps |
| | | Synchronous Connection Oriented links up to 3, 64 kbps, voice channels |
| | | Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric or 1306.9 kbps symmetric |
| | **Transmit Power** | The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of +4 dBm for BR and EDR. |
| | **Receiver Sensitivity** | **Modulation** / **0.01% BER** / **0.001% BER**<br>GFSK / -80 dBm / -70 dBm<br>π/4-DQPSK / -80 dBm / -70 dBm<br>8DPSK / -80 dBm / -70 dBm |
| | **Power Consumption** | Peak (Tx) 330 mW<br>Peak (Rx) 230 mW<br>Selective Suspend 17 mW |
| | **Range** | Up to 33 ft (10 m) |
| | **Electrical Interface** | USB 2.0 compliant |
| | **Bluetooth® Software Supported Link Topology** | Microsoft Windows Bluetooth® Software |
| | **Electrical Interface**<br>**Bluetooth® Software Supported Security** | Point to Point, Multipoint Pico Nets up to 7 slaves |
| | | Full support of Bluetooth® Security Provisions |
| | **Power Management**<br>**Power Management Certifications** | Microsoft Windows ACPI, and USB Bus Support |
| | | Self-configurable to optimize power conservation in all operating modes, including Standby, Hold, Park, and Sniff |
| | **Security** | All necessary regulatory approvals for supported countries, including: |
| | **Certifications**<br>**Bluetooth® Profiles Supported** | FCC (47 CFR) Part 15C, Section 15.247 & 15.249 |
| | **Power Management Certifications** | ETS 300 328, ETS 300 826 |
| | | Low Voltage Directive IEC950 |
| | **Certifications**<br>**Bluetooth® Profiles Supported** | UL, CSA, and CE Mark |
| | | Serial Port Profile (SPP)[1]<br>Service Discovery Application Profile (SDAP)<br>Dial-Up Networking (DUN)[1,2]<br>Generic Object Exchange Profile (GOEP)[1,2]<br>Object Push Profile (OPP)[1,2]<br>File Transfer Profile (FTP)<br>Synchronization Profile (SYNC)<br>Hard Copy Cable Replacement (HCRP)[1,2]<br>Personal Area Networking Profile (PAN)[1,2]<br>Human Interface Device Profile (HID)[1,2]<br>FAX Profile (FAX)<br>Basic Imaging Profile (BIP)[2]<br>Headset Profile (HSP) |

## Technical Specifications – Networking

| | | |
|---|---|---|
| | | Hands Free Profile (HFP)<br>Advanced Audio Distribution Profile (A2DP) |

Technical Specifications – Input/Output Devices

## INPUT / OUTPUT DEVICES

| HP USB Business Slim USB Keyboard | | |
|---|---|---|
| **Physical characteristics** | Keys | 104, 105, 106, 107, 109 layout (depending upon country) |
| | Dimensions (L x W x H) | 171.97 x 68.35 x 8.27 in (436.8± 1.5 x 137.6± 1.0 x 21.0± 1.0 cm) |
| | Weight | 1.32 lb (0.6± 0.08 kg) |
| **Electrical** | Operating voltage | + 4.4 – 5.25VDC |
| | Power consumption | 50-mA maximum (with 5 VDC power supplied and three LEDs ON) |
| | System interface | USB Type A plug connector |
| | ESD | Contact Discharge: 2, 4,6,8KV<br>Air Discharge: 2, 4, 8,10,12.5KV |
| | EMI - RFI | Conforms to FCC rules for a Class B computing device |
| | Microsoft® PC 99 - 2001 | Functionally compliant |
| **Mechanical** | Keycaps | Low-profile design |
| | Switch actuation | 60±12.5g nominal peak force with tactile feedback |
| | Switch life | 10 million keystrokes (Life tester) |
| | 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 |
| **Environmental** | 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) |
| | Operating humidity | 10% to 90% (non-condensing at ambient) |

## Technical Specifications – Input/Output Devices

| | | |
|---|---|---|
| | 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, TUV GS, VCCI, BSMI, C-Tick, KC | |
| **Ergonomic compliance** | ANSI HFS 100, ISO 9241-4, and TUVGS | |
| **Kit contents** | Keyboard | Installation Guide |
| | Warranty Card | Safety and Comfort Guide |

| **HP USB Mouse** | | |
|---|---|---|
| **Dimensions** (H x L x W) | 2.5 x 4.5 x 1.5 in (63.5 x 114.3 x 38.1 mm) | |
| **Weight** | 0.22 lb (99.79 g) | |
| **Color** | Black | |
| **Connector** | USB | |
| **Mechanical** | Resolution | 800 DPI sensitivity |
| | Buttons | Two primary buttons and clickable scroll wheel |

After Market Options

## AFTER MARKET OPTIONS

| Memory | Part Number |
|---|---|
| HP 4GB DDR4-2400 SODIMM | Z9H55AA |
| HP 8GB DDR4-2400 SODIMM | Z9H56AA |
| HP 16GB DDR4-2400 SODIMM | Z9H53AA |
| HP 16GB DDR4-2666 SODIMM | 3TK84AA |
| HP 4GB DDR4-2666 SODIMM | 3TK86AA |
| HP 8GB DDR4-2666 SODIMM | 3TK88AA |
| | |
| **Storage** | |
| HP 256GB SATA TLC Non-SED Solid State Drive | P1N68AA |
| HP PCIe NVME TLC 256GB SSD M.2 Drive | 1CA51AA |
| | |
| **Other** | |
| HP ODD Module | X8U73AA |
| HP VESA Plate (not recommend under the table) | X8U74AA |
| HP (Bulk) Elite Slice Sata Storage Drive Screws Kit | Z5U26AA |
| HP DisplayPort Cable Kit | VN567AA |
| | |
| **Pointing Devices** | |
| HP USB Mouse | QY777AA |
| HP 1000dpi Laser Mouse | QY778AT |
| | |
| **Keyboards** | |
| HP USB Business Slim Keyboard | N3R87AA |
| HP Wireless Business Slim Keyboard and Mouse | N3R88AA |

## Summary of Changes

| Date of change: | Version History: | | Description of change: |
|---|---|---|---|
| June 21, 2018 | V1 to V2 | Update | Typology requirements added to Operating system section |
| October 2, 2018 | V2 to V3 | Update | Wireless display module added |
| November 9, 2018 | V3 to V4 | Update | General re-arrangement |
| January 16, 2018 | V4 to V5 | Update | Audio codec corrected |
| May 15, 2019 | V5 to V6 | Update | Name changed to HP Elite Slice G2 with Microsoft Teams Rooms |
| July 1, 2019 | V6 to V7 | Update | Operating Systems and Topology requirements section updated |
| July 18, 2019 | V7 to V8 | Update | Footnote general re-arrange<br>At a glance updated<br>CPU 7400T removed and 7700T added<br>WLAN removed<br>CoRC image updated |
| August 26, 2019 | V8 to V9 | Update | Software and security sections as CoRC image and EPEAT references updated |
| August 28, 2019 | V9 to V10 | Update | Call out n.2 in page 1 updated |
| December 9, 2019 | V10 to V11 | Update | Microphones added to the call outs section image in page 2 |
| February 11, 2020 | V11 to V12 | Update | Supported Display Resolutions and Refresh Rates table |
| February 26, 2020 | V12 to V13 | Update | Pages 1 and 10 images updated |
| May 27, 2020 | V13 to V14 | Update | Intel® Dual Band Wireless-AC 7265 added and Dimensions and weight updated |
| June 15, 2020 | V14 to V15 | Removed | Active Health (black box flight recorder) from SECURITY MANAGEMENT section |
| July 16, 2020 | V15 to V16 | Update | EPEAT® statement and disclaimer updated |

© Copyright 2020 HP Development Company, L.P. All rights reserved.
The information contained herein is subject to change without notice. The only warranties for HP products are set forth in the express limited warranty statements accompanying such products. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein. Bluetooth® is a trademark of its proprietor, used by HP, Inc. under license. USB Type-C™ and USB-C™ are trademarks of USB Implementers Forum
Intel, Core and vPro are trademarks of Intel Corporation or its subsidiaries in the U.S. and/or other countries.