QuickSpecs

Overview

HP Engage One Essential All-in-One System
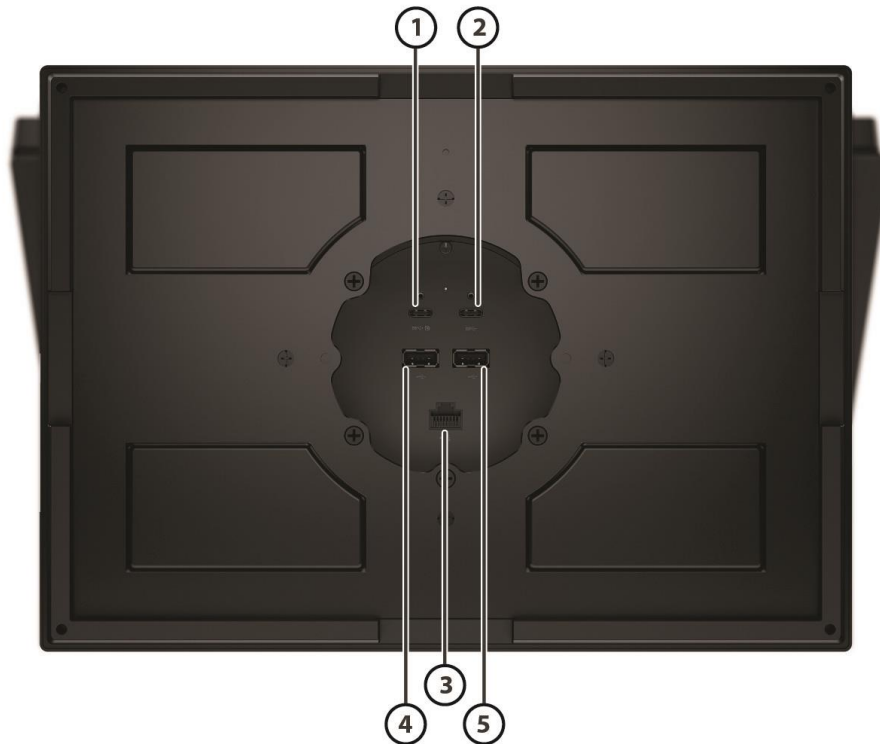
FRONT VIEW

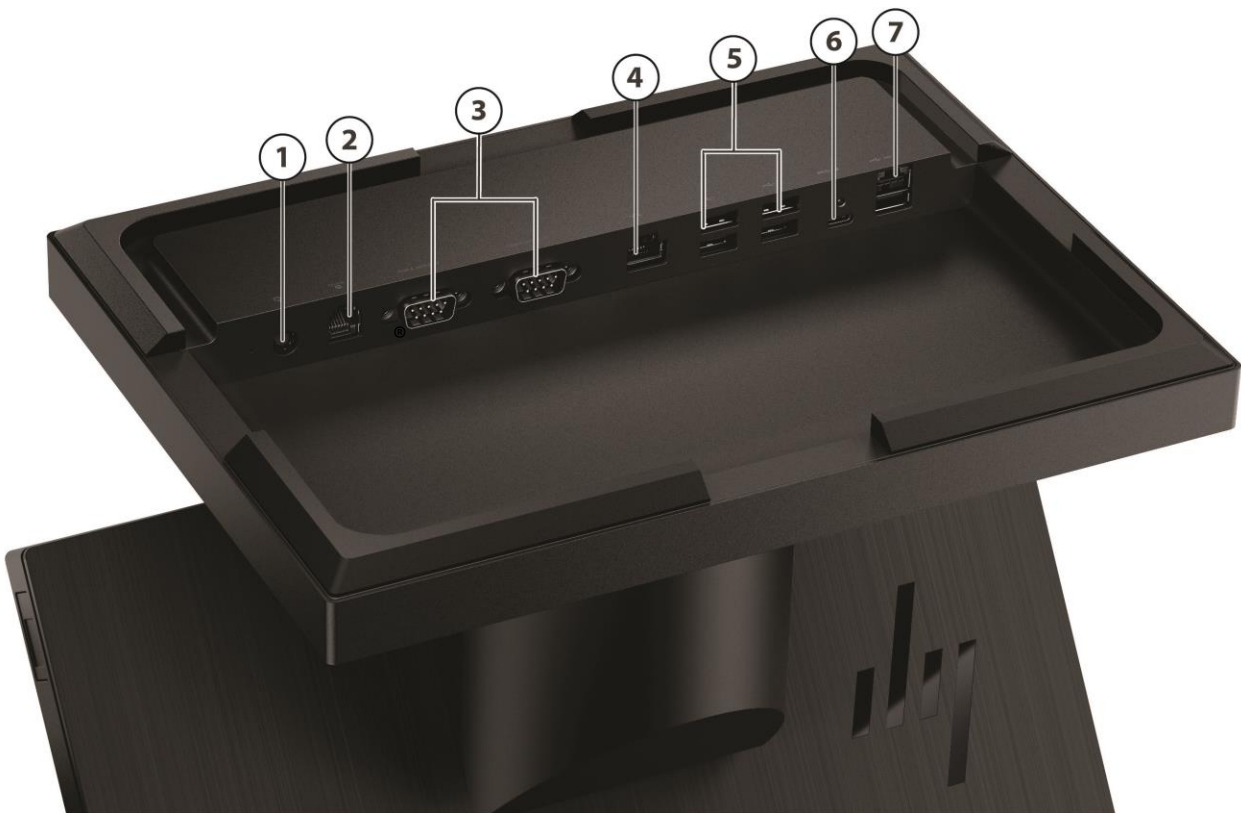## Overview

REAR VIEW

QuickSpecs

Overview

HP Engage One Essential Stand

1. 1 SuperSpeed USB Type-C® 5Gbps signaling rate (27 W Power Delivery, Alt Mode DisplayPort™)
2. 1 SuperSpeed USB Type-C® 5Gbps signaling rate (27 W Power Delivery)
3. 1 RJ-45 NIC
4. 1 USB 2.0 Type-A
5. 1 USB 2.0 Type-A

Overview

HP Engage One Advanced and Advanced Swivel Stands

1. 1 DC connector
2. 1 RJ12 Cash drawer connector
3. 2 Power serials (0V/5V/12V)
4. 1 RJ-45 NIC
5. 4 USB2.0 Type-A
6. 1 SuperSpeed USB Type-C® 5Gbps signaling rate (27 W Power Delivery, Alt Mode DisplayPort™)
7. 1 P-USB 24V

IMPORTANT: To avoid damage to the computer, DO NOT plug a telephone cable into the cash drawer jack.

QuickSpecs

Overview

HP Engage One Essential VESA Hub
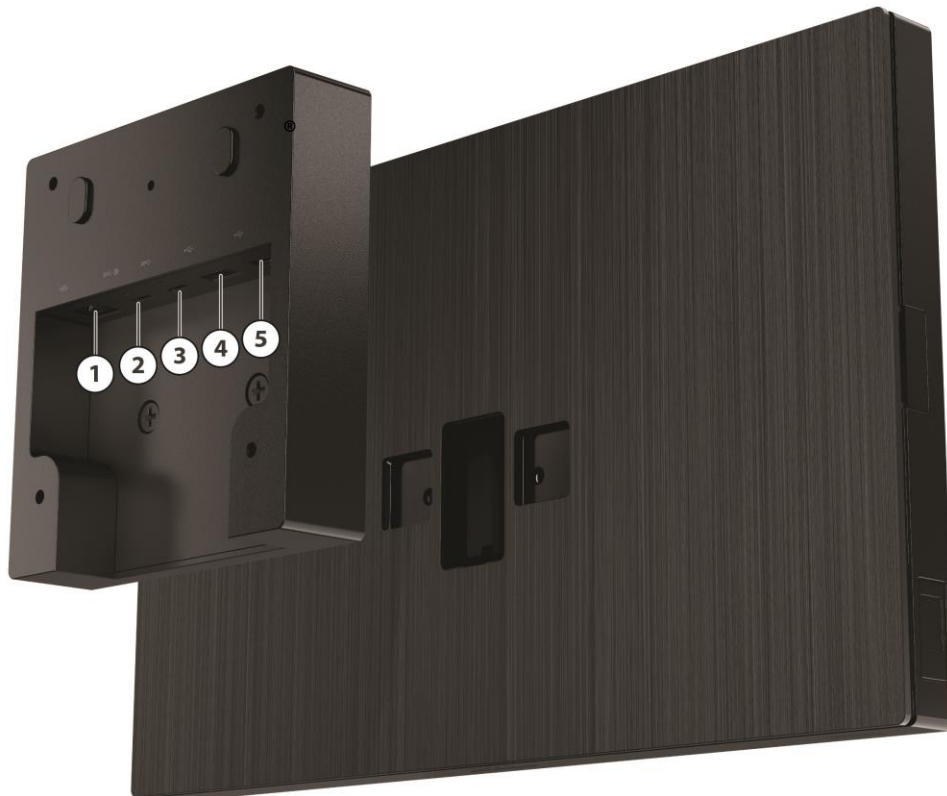
1. 1 RJ-45 NIC
2. 1 SuperSpeed USB Type-C® 5Gbps signaling rate (27 W Power Delivery, Alt Mode DisplayPort™)
3. 1 SuperSpeed USB Type-C® 5Gbps signaling rate (27 W Power Delivery)
4. 1 USB 2.0 Type-A
5. 1 USB 2.0 Type-A

Note: supports 100mm VESA

Overview

HP Engage One Pro VESA Hub

1. RJ-45 jack

2. DC Power Connector

3. Powered USB 24V

4. Powered USB 12V

5. USB Type-C® charging port

6. 3 USB Super Speed Type-A Ports

Overview

Stand and VESA Hub Features

HP Engage One Essential Stand

Tilt 15^0–40^0

HP Engage One Advanced Stand

Tilt 15^0–40^0

HP Engage One Advanced Swivel Stand

Tilt 15^0–40^0
Swivel 180^0 left or right

HP Engage One Essential VESA Hub

HP Engage One Pro VESA Hub

QuickSpecs

Overview

At A Glance

- Ebony Black Color
- Orientation: Landscape
- Choice of 1 Long lifecycle performance All-in-One (AiO) Retail System for retail and hospitality markets operator display:
  - 14" diagonal, FHD (1920 x 1080), touch, IPS, UWVA, anti-glare, 250 nits, 45% NTSC
    Note: Actual brightness will be lower with touch screen
- Choice of 3 stands:
  - HP Engage One Essential Stand
  - HP Engage One Essential Advanced Stand
  - HP Engage One Essential Advanced Swivel Stand
- Choice of 2 VESA Hubs:
  - VESA (Wall or 3rd Party Pole Mount)
    - HP Engage One Essential VESA Hub
    - HP Engage One Pro VESA Hub
    - Industry-standard 100mm VESA mounting pattern allows for flexible use without the optional stand (Mounting hardware sold separately)
- Processor Choices:
  - Intel® Pentium® processor
  - Intel® Celeron® processor
- Intel Graphics: Intel® UHD Graphics on Celeron & Pentium; based on Gen11-LP graphic core
- Intel® Ethernet: Gigabit Ethernet controller, GbE with TSN
- Operating System choices:
  - Windows 10 IoT Enterprise 2019 LTSC 64
  - FreeDOS 3.0
  - SUSE Linux® Enterprise Desktop 15 (certification only), SLEPOS (SUSE Linux Enterprise Point of Sale)
  - Ubuntu Linux 20.04 LTS
- Integrated peripheral options
  - HP Engage One Essential Magnetic Stripe Reader
  - HP Engage One Essential Fingerprint Reader
  - HP Engage One Pro Bar Code Scanner (choose between one of 3 locations: left, right, bottom) of the head unit
  - HP Engage One Pro Customer Facing Display with 2x20 line display emulation **
  **The 2x20 line display emulation can be used on 6.6" CFD and future CFDs for Engage One Pro Virtual Line Display will work with any display.
    - Virtual Line Display will work with any display. It defaults to 2x20, it can also be used for any other size line display such as 3x16 or 3x20, 5x10
- IP54 Certified
- WLAN: Realtek RTL8821CE a/b/g/n/ac 1x1 +BT 4.2LE M.2 2230 PCIe+USB
- Trusted Platform Module (TPM 2.0)
- AMI BIOS
- Cable Management Features
- ENERGY STAR® certified configurations available, EU Compliant, RoHS2 Compliant, EPEAT® registered configurations available
- Standard Warranty Options – 90/90/90, 1/1/1, 3/3/3
- (1) One DDR4 Memory Slot (8GB Maximum)
  - 4 GB DDR4- SDRAM Transfer rates up to 3200 MT/s
  - 8 GB DDR4- SDRAM Transfer rates up to 3200 MT/s.
- (1) One M.2 slot for SSD
  - 128 GB PCIe® NVMe™ SSD
  - 256 GB PCIe® NVMe™ SSD
- Integrated HD audio with Realtek ALC3247 codec with standards internal 1W Mono speakers and 1 digital MIC.
- HP Engage One Essential Security Features (Power-on password (via BIOS); Trusted Platform Module TPM 2.0

Overview

Embedded Security Chip; USB enable/disable (via BIOS); Device security; Secure Boot; Administrator password (via BIOS)

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

Features

OPERATING SYSTEM

Preinstalled	Windows 10 IoT Enterprise 2019 LTSC 64[1,2]
	FreeDOS 3.0
Certified	SUSE Linux® Enterprise Desktop 15 (certification only), SLEPOS (SUSE Linux Enterprise Point of Sale) [3]
	Ubuntu Linux® 20.04 LTS

NOTE:

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
2. Microsoft Device Guard and Credential Guard are available with Windows 10 IoT Enterprise delivered from HP or to customers with a volume license to use Windows 10 Enterprise. Microsoft Device Guard and Credential Guard are not available with Windows 10 Pro. The installation of Windows 10 Enterprise and Microsoft Device Guard and Credential Guard are available through HP Configuration & Deployment Services.
3. SUSE Enterprise Linux 15 SP2 YES Certification, SLEPOS (SUSE Linux Enterprise Point of Sale) on a single platform configuration. More information about SUSE

    YES certification details available at https://http://www.suse.com/partners/ihv/yes/

    The following features are not supported by SUSE Linux Enterprise Desktop:

    • Power Management features
    • Multi-touch capabilities
    • Systems configured with Linux do not qualify for ENERGY STAR®

NETWORKING/COMMUNICATIONS

• Realtek RTL8821CE a/b/g/n/ac 1x1 +BT 4.2LE M.2 2230 PCIe+USB*

*Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 5 (802.11 ac) is backwards compatible with prior 802.11 specs.

NEAR FIELD COMMUNICATION

WNC XRAV-1 Near Field Communication Module (NFC)

PORTS

HP Engage One Essential Head unit I/O:
• 1 SuperSpeed USB Type-C® & Power Delivery port, DP alt mode (Note: Power supply to the head unit)[1]
• 1 RJ45
• Internal access for the memory and storage
• Choice of Stands or VESA Hubs[1]:
    o **HP Engage One Essential Stand**
        • 1 RJ-45 NIC
        • 2 USB 2.0 Type-A
        • 1 SuperSpeed USB Type-C® 5Gbps signaling rate (27 W Power Delivery, Alt Mode DisplayPort™)
        • 1 SuperSpeed USB Type-C® 5Gbps signaling rate (27 W Power Delivery)

Features

- o **HP Engage One Essential Advanced Stand**
  - 1 Cash drawer connector
  - 4 USB2.0 Type-A
  - 2 Power serials (0V/5V/12V)
  - 1 RJ-45 NIC
  - 1 DC connector
  - 1 SuperSpeed USB Type-C® 5Gbps signaling rate (27 W Power Delivery, Alt Mode DisplayPort™)
  - 1 P-USB 24V
- o **HP Engage One Essential Advanced Swivel Stand**
  - 1 Cash drawer connector
  - 4 USB2.0 Type-A
  - 2 Power serials (0V/5V/12V)
  - 1 RJ-45 NIC
  - 1 DC connector
  - 1 SuperSpeed USB Type-C® 5Gbps signaling rate (27 W Power Delivery, Alt Mode DisplayPort™)
  - 1 P-USB 24V
- o **HP Engage One Essential VESA Hub**
  - 1 RJ-45 NIC
  - 2 USB 2.0 Type-A
  - 1 SuperSpeed USB Type-C® 5Gbps signaling rate (27 W Power Delivery, Alt Mode DisplayPort™)
  - 1 SuperSpeed USB Type-C® 5Gbps signaling rate (27 W Power Delivery)
- o **HP Engage One Pro VESA Hub:**
  - 3 SuperSpeed USB3.1 Type-A 5Gbps signaling rate
  - 1 RJ-45 NIC
  - 1 DC connector
  - 1 SuperSpeed USB Type-C® 5Gbps signaling rate (27 W Power Delivery, Alt Mode DisplayPort™)
  - 1x P-USB 12V
  - 1x P-USB 24V

NOTES:
1. Stands and VESA® Hubs must be configured at purchase.

USB SPECIFICATION

Speed	Terminology
Hi-Speed USB 480Mbps signaling rate	USB 2.0
SuperSpeed USB 5Gbps signaling rate	USB 3.1 Gen 1

SOFTWARE COMPONENTS AND APPLICATIONS

QuickSpecs

Features

BIOS
- **AMI BIOS**
  - Protect and manage the foundation of your POS System
  - UEFI Support, SMBios, and Pre-boot touch
  - Intel® Boot Guard

Manageability Features
- HP Engage Console (optional)

Security Management

- Power-on password (via BIOS); Trusted Platform Module TPM 2.0 Embedded Security Chip; USB enable/disable (via BIOS); Device security; Secure Boot; Administrator password (via BIOS)

Other Security Features
- HP Engage One Essential Biometric Fingerprint Reader (optional)
- VESA mounting
- Keyed Cable Lock[1]
- Trusted Platform Module TPM 2.0
- Drive lock
- Tamper Resistant Screw affixed on stand of the system unit, used to secure display head to stand without Quick Released

Notes:
1. Optional Keyed cable lock available on Advanced Stand & Advanced Swivel Stands only.

PROCESSORS

- Intel® Celeron® N6211 with Intel® UHD Graphics Gen11 (1.2 GHz base frequency, 1.5 MB L2 cache, 2 cores)
- Intel® Pentium® N6415 with Intel® UHD Graphics Gen11 (1.2 GHz base frequency, 1.5 MB L2 cache, 4 cores)

NOTES:
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 measurement of higher performance.

Technical Specifications

OPERATOR DISPLAY*

14" Diagonal Wide Aspect, Projective Capacitive, Anti-glare, Anti-smudge, TFT Display

Touch Technology	Projected Capacitive Touchscreen
Resolution	1920 x 1080
Aspect Ratio	16:9
Max Color	262K
Brightness	Typical 250 Nits*
Contrast Ratio	Typical 800:1
Pixel Pitch	0.1611mm(H) x 0.1611mm(V)
Viewing Angle	Horizontal +/-89º, Vertical +/-89º
Response rate	25ms (Tr+Tf, Typical On / Off)
Backlight	LED
Operating Temperature range	0 to 50ºC (+ 50ºC as panel surface temperature)

NOTE: Nits is the measure of the typical brightness of the panel as specified, prior to anti-glare coating
*All specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

Technical Specifications-Graphics

Integrated Graphics

Intel® UHD Graphics based on Gen11-LP graphic core

DisplayPort

DisplayPort v1.2 over the USB-C® on the Stands & VESA Hubs

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 Graphic Memory

Windows 10= 4 GB

Maximum Color Depth

64bits/pixel
- Encode/transcode HD content

Graphics/Video API Support

- DirectX Video Acceleration (DXVA) support for accelerating video processing o FullAVC/VC1/MPEG2/HEVC HW Decode
- Advanced Scheduler 2.0, 1.0
- Windows 10, Linux OS Support
- DirectX 12.1
- OpenGL 4.4
- Open CL 1.2 (Intel® HD Graphics 630)
- Open CL 1.2/2.0 (Intel® HD Graphics 610)

NOTE: the actual amount of maximum graphics memory can be less than the amounts listed above depending upon your computer's configuration.

MEMORY

Type
DDR4 Transfer rates up to 3200 MT/s
Maximum
8 GB
of Slots
1 SODIMM
Memory
- 4GB (1x4GB) DDR4 3200 SODIMM Memory
- 8GB (1x8GB) DDR4 3200 SODIMM Memory

System Memory Support
The HP Engage One Essential AiO System Retail System supports DDR4 protocols with one, 64-bit wide channels accessing one SODIMM.
- Memory data transfer rates of up to 3200 MT/s; actual supported data transfer rate determined by the configured processor.
- 64-bit wide channels
- DDR4 system memory I/O voltage of 1.2V
- Theoretical maximum memory bandwidth of:
  - 25.6 GB/s in single-channel mode assuming 3200 MT/s

Notes

Technical Specifications-Graphics

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 2400 MT/s; actual data rate is determined by the system's configured processor. See processor specifications for supported memory data rate.

CAUTION: You must shut down the Retail System and disconnect the power cord before adding or removing memory modules. Regardless of the power-on state, voltage is always supplied to the memory modules as long as the Retail System is plugged in to an active AC outlet. Adding or removing memory modules while voltage is present may cause irreparable damage to the memory modules or system board.

QuickSpecs

HP Engage One Essential All-in-One System

Technical Specifications-Storage

SOLID STATE STORAGE

Drive Bays : M.2 PCIe x4 2280 (for storage)

PCIe NMVe Solid State Drives (SSD)[1]
- 128GB 2280 PCIe NVMe Value M.2 SSD
- 256GB 2280 PCIe NVMe Value M.2 SSD

128GB 2280 PCIe NVMe Value M.2 SSD

Unformatted Capacity	128GB
Interface	PCIe Gen 3
Form Factor	M.2
Height	2.38mm
Width	22mm
Length	80mm
Weight	<10g
Maximum Sequential Read	Up to 1300MB/s
Maximum Sequential Write	Up to 600MB/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.

256GB 2280 PCIe NVMe Value M.2 SSD

Unformatted Capacity	256GB
Interface	PCIe Gen 3
Form Factor	M.2
Height	2.38mm
Width	22mm
Length	80mm
Weight	<10g
Maximum Sequential Read	Up to 2100MB/s
Maximum Sequential Write	Up to 950MB/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.

c07928667 — DA – 16975 Worldwide — Version 1 — January 6, 2022

Page 16

Technical Specifications – Networking and Communications

Networking/Communications

Ethernet (RJ-45)
- Intel® Integrated Gigabit Ethernet Controller

Wireless LAN
- Realtek RTL8821CE a/b/g/n/ac 1x1 +BT 4.2LE M.2 2230 PCI-e+USB

Notes:

*Wireless access point and Internet service required and not included. Availability of public wireless access points limited. The specifications for the 802.11ax WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the PC to communicate with 802.11ax WLAN devices. Wi-Fi 6 requires a wireless router, sold separately, that supports 802.11ax (Wi-Fi 6). Only available in countries where 802.11ax is supported.

** Wi-Fi 5 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 5 (802.11 ac) is backwards compatible with prior 802.11 specs.

Realtek Coco RTL8821CE a/b/g/n/ac 1x1 +BT 4.2LE M.2 2230 PCI-e+USB WW	
Wireless LAN Standards	IEEE 802.11a 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	Wi-Fi® certified
Frequency Band	802.11b/g/n •2.402 – 2.482 GHz 802.11a/n/ac •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, 11Mbps • 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54Mbps • 802.11n: up to 150Mbps-single • 802.11ac: up to 86.7Mbps (20MHz channel) • 802.11ac: up to 200Mbps (40MHz channel) • 802.11ac: up to 433.3Mbps (80MHz channel)
Modulation	DSSS, OFDM, DBPSK, DQPSK, CCK, 16-QAM, 64-QAM, 256-QAM
Security[3]	• IEEE and WiFi certified 64 / 128 bit WEP encryption for a/b/g mode only • AES-CCMP: 128 bit in hardware • 802.1x authentication • WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. • WPA2 certification • WPA3 certification • IEEE 802.11i

Technical Specifications – Networking and Communications

	• WAPI
Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
Roaming	N/A
Output Power[2]	• 802.11b : +14dBm minimum • 802.11g : +12dBm minimum • 802.11a : +12dBm minimum • 802.11n HT20(2.4GHz) : +12dBm minimum • 802.11n HT40(2.4GHz) : +12dBm minimum • 802.11n HT20(5GHz) : +10dBm minimum • 802.11n HT40(5GHz) : +10dBm minimum • 802.11ac VHT80(5GHz) : +10dBm minimum
Power Consumption	•Transmit mode 2.0 W •Receive mode 1.6 W •Idle mode (PSP) 180 mW(WLAN Associated) •Idle mode 50 mW(WLAN unassociated) •Connected Standby 10mW •Radio disabled 8 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity[3]	2.4GHz 11b (11Mbps) -83 dBm Typical 11g (54Mbps) -70 dBm Typical 11n (HT20 MCS7) -64 dBm Typical 11n (HT40 MCS7) -64 dBm Typical 5GHz 11a (54Mbps) -65 dBm Typical 11n (HT20 MCS7) -64 dBm Typical 11n (HT40 MCS7) -61 dBm Typical 11ac (VHT80 MCS9) -52 dBm Typical
Antenna type	Foxconn Connector Receptacle ANT1(Main): WiFi/Bluetooth ->TX/RX
Form Factor	PCI-Express M.2 MiniCard
Dimensions	Type 2230 : 2.25 x 22.0 x 30.0 mm
Weight	Type 2230 : 2.3g
Operating Voltage	3.3v
Temperature	Operating Non-operating	14° to 158° F (−10° to 70° C) −22° to 176° F (−30° to 80° C)
Humidity	Operating Non-operating	Operating: 10% to 90% (non-condensing) Non-operating: 5% to 95% (non-condensing)
Altitude	Operating Non-operating	0 to 10,000 ft (3,048 m) 0 to 30,000 ft (9,144 m)
LED Activity	N/A

Technical Specifications – Networking and Communications

HP Integrated Module with Bluetooth[a] 4.0/4.1/4.2 Wireless Technology	
Bluetooth[a] Specification	4.0/4.1/4.2 Compliant
Frequency Band	2402 to 2480 MHz
Number of Available Channels	Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH)
Data Rates and Throughput	Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps
	BLE : 1 Mbps data rate; throughput up to 0.2 Mbps
	Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels.
	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 Peak (Rx) 230 mW Selective Suspend 17 mW
Bluetooth[a] Software Supported Link Topology	Microsoft Windows Bluetooth[a] 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 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)

High-Definition Audio

Engage One System Audio (Realtek ALC3247-CG)

Type	Integrated
HD Stereo Codec	High-Definition Audio codec
Internal Speaker Amplifier	4-channel DAC, 4-channel ADC,

Technical Specifications – Networking and Communications

	and an integrated Class-D Speaker Amplifier
Sampling	1kHz input sine wave; Sampling frequency=48kHz; 0dB=1Vrms
Analog Audio	Yes, independent analog sound inputs (multiple streaming)
# of Channels on line-out	No line out.
Internal speaker	Yes
Microphone	Yes, digital microphone input
Maximum Power Output	1W for Mono Speaker
Headphone	No

QuickSpecs

Technical Specifications – Power

POWER

Power Supply	150Watt Smart PFC Standard Barrel 7.4mm, Power Cord 1.8m C5; 89% efficiency (HP Engage One Essential Advanced Stand, HP Engage One Essential Advanced Swivel Stand, & HP Engage One Pro VESA Hub)
	65Watt USB-C PD adaptor, Power Cord 1.8m C5, 89% efficiency (HP Engage One Essential stand & HP Engage One Essential VESA Hub)
Operating Voltage Range	90V~265VAC
Rated Voltage Range	100V~240AC
Rated Line Frequency	50~60HZ
Operating Line Frequency Range	47~63HZ
Rated Input Current	<2.5A RMS/150W, <1.7A/65W
ENERGY STAR® Compliant	ENERGY STAR® certified configurations available and EPEAT® registered *
Power Management Certifications	EN/IEC 60601-1-22 certification
Power Cord Length	1.8m

NOTE: Power supply meets ENERGY STAR® compliance in conjunction with a select range of processors and modules.
*Energy Star in under testing & in process of certification at the time this document is written

WEIGHTS & DIMENSIONS
NOTE: Weight and dimensions below do not include MSR, Biometric Reader, Webcam, or CFD.

Head Unit-14" (with back plate)		
	Metric	US
Head Unit-14" Dimensions		
Height [mm/in]	215.02	8.47
Width [mm/in]	354	13.94
Depth [mm/in]	23.90	0.94

HP Engage One Pro VESA hub		
	Metric	US
Dimensions		
Height [mm/in]	150.0	5.9
Width [mm/in]	125.0	4.9
Depth [mm/in]	24.4	1.0

QuickSpecs

Technical Specifications – Power

Weight(Without Adapter)		
[kg/lb.]	0.60	1.32

HP Engage One Essential VESA Hub only		
	Metric	US
Dimensions		
Height [mm/in]	135	5.31
Width [mm/in]	130	5.12
Depth [mm/in]	31.64	1.25
Weight		
[kg/lb.]	0.43	0.95

HP Engage One Essential Stand only		
	Metric	US
Weight		
[kg/lb.]	1.93	4.29

HP Engage One Essential Advanced Stand only		
	Metric	US
Weight		
[kg/lb.]	2.4	5.33

HP Engage One Essential Advanced Swivel Stand only		
	Metric	US
Weight		

Technical Specifications – Power

[kg/lb.]		2.99	6.64

Stand or VESA® Hub with Head Unit			
Dimensions [mm/in.]	Width [mm/in]	Height [mm/in]	Depth [mm/in]
Essential Stand	354/13.94	266.68/10.49	220/8.66
Advanced Stand	354/13.94	283.78/11.17	220/8.66
Advanced Swivel Stand	354/13.94	283.78/11.17	220/8.66
Essential VESA Hub	354/13.94	215.02/8.47	55.54/2.19
Pro VESA Hub	354/13.94	215.02/8.47	48.35/1.90

Technical Specifications - Miscellaneous Features

MISCELLANEOUS FEATURES

IP54 Certified[1]
[1]HP Engage One Essential All-in-One System is IP54 Certified. Test results are not a guarantee of future performance under these test conditions. Accidental damage requires an optional HP Accidental Damage Protection Care Pack.

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 orpowered-off state without affecting other elements of the system.
- Dual State Power Button; acts as both an on/off button and a suspend-to-sleep button.

HP Point of Sale Diagnostics UEFI:
- This utility enables hardware level testing outside the operating system on many components. The diagnostics can beinvoked by pressing F2 at POST, and is available as a download from HP Support

Serviceability Features:
- System/Emergency ROM
- Flash ROM
- Over-Temp Warning
- Clear Password Jumper
- Clear CMOS Button
- Color coordinated cables and connectors
- Front power switch

Interpreting System Validation Diagnostic Front Panel LEDs and Audible Codes

During the system validation phase that occurs at system startup, the BIOS validates the functionality of the following subsystems and conditions:
- AC adapter
- System board power
- Processor failure
- BIOS corruption
- Memory failure
- Graphics failure
- System board failure
- BIOS authentication failure

If an error is detected, specific patterns of long and short blinks, accompanied by long and short beeps (where applicable) areused to identify the error. These patterns will make up a two part code:
- Major – the category of the error
- Minor – the specific error within the category

TEMPERATURE, HUMIDITY, ALTITUDE

Temperature	Operating	32° to 95° F (0 to 35° C)
	Non-operating	-4° to 140° F (-20°to 60° C)
Humidity	Operating	10%-90% relative humidity
	Non Operating	10%-90% relative humidity
Shock	Operating	40g, six surfaces
	Non Operating	30g, six surfaces
Vibration	Operating	2-g peak acceleration

Technical Specifications - Miscellaneous Features

	Non Operating	3-g peak acceleration
Altitude (unpressurized)	**Operating**	0 to 10,000 ft (3,048 m)
	Non-operating	0 to 30,000 ft (9,144 m)

QuickSpecs

HP Engage One Essential All-in-One System

Technical Specifications - Environmental

ENVIRONMENTAL & INDUSTRY

Environmental Data

Eco-Label Certifications & declarations

This product has received or is in the process of being certified to the following approvals andmay be labeled with one or more of these marks:
- IT ECO declaration
- US ENERGY STAR® certified configurations available
- EPEAT® Silver registered configurations available in the United States. Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Seehttp://www.epeat.net for registration status in your country.

Sustainable Impact Specifications

• It's plastics are 35% post-consumer recycled plastic[1]
• Low halogen[2]
• Ocean-Bound Plastic in speaker enclosure[3]

[1]Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard.
[2]External power supplies, WWAN modules, power cords, cables and peripherals excluded. Service parts obtained after purchase may not be Low Halogen.
[3]5% ocean bound plastics in speaker enclosure.

System Configuration

Consumption and Declared Noise Emissions data for the Engage One Essential model is based on a typically configured system featuring an SSD, a high efficiency power supply, and a Microsoft Windows® operating system.

HP Engage One Essential AiO System Model 14"

Energy Consumption (in accordance with US ENERGY STAR® test method)	115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz
Normal Operation (Short idle)	7.54 W	7.66 W	7.68 W
Normal Operation (Long idle)	5.38 W	5.39 W	5.37 W
Sleep	1.85 W	1.88 W	1.85 W
Off	1.62 W	1.72 W	1.68 W
Heat Dissipation*	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	25.8 BTU/hr	26.2 BTU/hr	26.3 BTU/hr
Normal Operation (Long idle)	18.4 BTU/hr	18.4 BTU/hr	18.4 BTU/hr
Sleep	6.3 BTU/hr	6.4 BTU/hr	6.3 BTU/hr
Off	5.5 BTU/hr	5.9 BTU/hr	5.7 BTU/hr

* Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour

Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)	Sound Power (L_{WAd}, bels)	Sound Pressure (L_{pAm}, decibels)
Typically Configured – Idle	3.1	23
Fixed Disk – Random writes	3.1	24
Optical Drive – Sequential reads	4.8	42

Technical Specifications - Environmental

NOTE: Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family . HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.

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:

- (1) memory slot
- M.2 2230 slot for WLAN
- (1) M.2 2280 slot for SSD

Spare parts are available throughout the warranty period and or for up to "3" 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 weight
  Cadmium greater than 20ppm by weight

Battery size: CR2032 (coin cell)
Battery type: Lithium

Additional Information

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC.
- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC.
- This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- This product is in compliance with the IEEE 1680.1 (EPEAT) standard at the <Silver> level, see www.epeat.net
- Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043.
- This product is 96.3% recycle-able when properly disposed of at end of life.

Packaging Materials

External:	PAPER/Corrugated	1723 g
Internal:	PLASTIC/Polyethylene Expanded - EPE	106 g
	PLASTIC/Polyethylene low density – LDPE	17 g

The EPE* foam packaging material is made from 86.2% recycled content.

The corrugated paper packaging materials contains at least 77.7% recycled content.

Notes: * EPE foam packaging material is considered "recycled" pre-Consumer. The scrap or waste EPE material from the manufacturing process of these EPE foam pieces are re-introduced into the manufacturing process.

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf):

- Asbestos

Technical Specifications - Environmental

- Certain Azo Colorants
- Certain Brominated Flame Retardants – may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- 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)

Packaging Usage

HP follows these guidelines to decrease the environmental impact of product packaging:
- Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.
- Eliminate the use of ozone-depleting substances (ODS) in packaging materials.
- Design packaging materials for ease of disassembly.
- Maximize the use of post-consumer recycled content materials in packaging materials.
- Use readily recyclable packaging materials such as paper and corrugated materials.
- Reduce size and weight of packages to improve transportation fuel efficiency.
- Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.

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 HP Inc. 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.

Technical Specifications - Environmental

HP Inc. Corporate Environmental Information

For more information about HP's commitment to the environment

Global Citizenship Report
http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html
Eco-label certifications
http://www8.hp.com/us/en/hp-information/environment/ecolabels.html
ISO 14001 certificates:
PC Product Design ISO 14001 certificate
and
HP Operations ISO 14001 certificate

HP Engage One Essential Peripherals

HP Engage One Essential Magnetic Stripe Reader

Model
HP Engage One Essential Magnetic Stripe Reader

Compatibility
The HP Engage One Essential Magnetic Stripe Reader is compatible with the HP Engage One Essential All-in-One System.

NOTE: Not all Point of Sale system models are available in all regions.
*Embedded peripherals excluding the barcode scanner and 6.6 inch customer facing display must be configured at purchase.

Service and Support
Three (3) year limited warranty with advance exchange when purchased from HP.

QuickSpecs

HP Engage One Essential Peripherals

General

Magnetic stripe formats	ISO 7811, AAMVA
Card Thickness	0.38 to 1.14 mm (0.015 to 0.045 in)
Indicators	Bi-colored LED, beeper (requires system audio driver)
Card Speed	3 to 75 ips (7.6 to 190.5 cm/s)

Mechanical

Weight	5.67 g
Slot width	1.14 mm (0.045 in)
Color	HP Black

Connection

Interface	Eight-pin male Molex 51021-0800
Cable Length	125 ± 6.4 mm

Power

Power Supply	3.0 to 3.6 VDC
I/O Voltage Range	2.7 to 3.6 VDC
Active Power Supply Current	5
mA Standby Power Supply Current	0.03 mA

Temperature Range

Operating	0°C to 55°C
Relative Humidity	-10% to 90% non-condensing

Reliability

Operating Life	1,000,000 card swipes minimum

Agency Certifications

FCC, CE, USB-IF

Operating Systems

Compatible with:	Windows 10 IoT Enterprise 2019 LTSC (64-bit) FreeDos 3.0 Ubuntu Desktop 18.04 LTS

Kit Contents

HP Engage One Pro Magnetic Stripe Reader, documentation, warranty card.

HP Engage One Essential Peripherals

HP Engage One Essential Fingerprint Reader

Model
HP Engage One Essential Fingerprint Reader

Compatibility
The HP Engage One Essential Fingerprint Reader is compatible with the HP Engage One Essential All-in-One System.

NOTE: Not all Point of Sale system models are available in all regions.
*Embedded peripherals excluding the HP Engage One Pro Barcode Scanner and HP Engage One Pro 6.6 inch customer facing display must be configured at purchase.

Service and Support
Three (3) year limited warranty with advance exchange when purchased from HP.

HP Engage One Essential Peripherals

General

	Sensor Type	Capacitive
	Array Size	208 x 288 pixels
	Image Resolution	508 DPI
	Gray Scale	8-bit (256 levels)

Mechanical

	Image Area	10.4 x 14.4 mm
	Image/Coating	Steel Coat
	Color	HP Black

Digital ID Reliability

	NVM Storage	100 templates
	Data Retention	20 years
	Erase/Write	100,000 cycles

Interface/Connection

	Interface	USB 2.0
	Interface Connector	5 pin, 0.8mm pitch wire-type (gold-plated)

Temperature

	Operating	-30° to +85°C
	Storage	-40° to +85°C
	Humidity (non-condensing)	5% to 85%
	ESD Tolerance	IEC 61000-4-2 Level 4

Power

	Consumption	Supply voltage: single supply voltage, 3.0V to 3.6V Imaging mode: 105 mA @ 3.3V Sleep mode: 1350 uA @ 3.3V
	Wake-up Time	< 15 ms (Sleep to imaging)

Drivers

Windows USB HID-KB and OPOS & JPOS (via USB-COM mode drivers)

Operating Systems

	Compatible with:	Windows 10 IoT Enterprise 2019 LTSC (64-bit) FreeDos 3.0 Ubuntu Desktop 18.04 LTS

Agency Certifications

FCC (47 CFR) Part 15C, Section 15.247 & 15.249

Kit Contents

HP Engage One Essential Fingerprint Reader, documentation, warranty card.

HP Engage One Essential Peripherals

HP Engage 6.6 inch Customer Facing Display

Model

HP Engage 6.6 inch Customer Facing Display   9YH48AA

Introduction

Give customers a clear view of their transactions and sharing engaging, colorful, dynamic content at the point of sale with LCD touch display.

Key Benefits

- 6.6 inch diagonal compact LCD display that integrates easily into your retail solution.
- Position as need with adjustable height and swiveling of the display head.
- Place the durable, dust resistant display in a range of high traffic areas.
- A USB connector powers the display and eliminated the need for additional cabling.
- The edge to edge, bezel free design is easy to clean, helps protection from dust, and create a sleek, modern appearance.

HP Engage One Essential Peripherals

Compatibility

The HP Engage 6.6 inch Customer Facing Display is compatible with the HP Engage One Essential All-in-One System and the HP Engage One Pro All-in-One System.

Note: Integrated scanner supports OCR Passport Reading
*Embedded peripherals excluding the HP Engage One Pro Barcode Scanner and HP Engage One Pro 6.6 inch customer facing display must be configured at purchase.

Service and Support

Three (3) year limited warranty with advance exchange when purchased from HP.

HP Engage One Essential Peripherals

General

Display Method	Backlit LED
Brightness	400 Nits
Resolution	1440 x 720
Pixel Pitch	0.105 x 0.105 mm
Active Area	151.2 (H) x 75.6 (V) mm
Contrast Ratio	1000:1 (max)
Response Rate	25 ms (rise+fall time)
Touchscreen	Touch-enabled
Viewing Angle	Left: 85° Right: 85° Top: 85° Bottom: 85°
Color Gamut	70% (CIE 1931 Standard NTSC)

Mechanical

Display Dimensions (WxHxD)	171.4 x 76.2 x 56.35 mm
Display Weight	0.25 kg
Hinge Adjustability	Rotation Range 0°~40° (normal using) Folded to 90° for shipping
Color	HP Black

Connection

Interface	USB-A

Power

Operating Voltage	5V
Full Load Current	6.5W (DC +5V, 1300mA)
Idle Current 0.64W	TBD

Temperature Range

Operating	0°C to 35°C [32 to 95°F] at 10% to 90% humidity (non-condensing)
Non-operating	-30°C to 65°C [-22 to 149°F] at 0% to 95% humidity (38.7°C maximum wet bulb temperature)
Webcam	30fps USB 2.0 webcam, 5MP (2560x1920) resolution

Note: The Integrated webcam is a windows Hello Camera and IR is supported on 5MP Camera

Operating System

Compatible with:	Windows 10 IoT Enterprise 2019 LTSC (64-bit) FreeDos 3.0 Ubuntu Desktop 18.04 LTS CentOS 7

Kit Contents

HP Engage 6.6 inch Customer Facing Display, documentation, warranty card.

HP Engage One Essential Peripherals

HP Engage One Pro Barcode Scanner

Model

HP Engage One Pro Barcode Scanner (Americas)	9YH49AA#ABA
HP Engage One Pro Barcode Scanner (Europe)	9YH49AA#ABB
HP Engage One Pro Barcode Scanner (Asia)	9YH49AA#AB4

Compatibility

The HP Engage One Pro Barcode Scanner is compatible with the HP Engage One Essential All-in-One System and the HP Engage One Pro All-in-One System.

Note: Integrated scanner supports OCR Passport Reading
*Embedded peripherals excluding the barcode scanner and 6.6 inch customer facing display must be configured at purchase.

Service and Support

Three (3) year limited warranty with advance exchange when purchased from HP.

QuickSpecs

HP Engage One Essential Peripherals

General

Image Sensor	1200 x 800 CMOS
Illumination Aimer	White LED
	Red LED 625± 10nm

Depth of Field

Typical Performance *	
Narrow Width	**Depth of Field**
Code 39	5 mils: 105 to 250mm
Data Matrix	10 mils: 75 to 215mm
EAN-13	13 mils: 70 to 400mm
PDF-417	6.7 mils: 80 to 225mm
QR Code	15 mils: 45 to 295mm

Symbol Contrast	25% minimum reflectance
Roll (tilt)	360°
Pitch	±60°
Skew	±60°
Field of View	Horizontal 42°, Vertical 28°
1D decode symbologies	Autodiscriminates all standard 1D codes including GS1 DataBar™ linear codes.
2D decode symbologies	Aztec Code
	Chinese Sensible Code
	Code One
	Data Matrix
	GM Code
	MaxiCode
	MicroPDF417
	Micro QR Code
	PDF417
	QR Code
Postal decode symbologies	Australian Post
	KIX Post
	Royal Mail
	USPS Planet
	USPS Postnet
OCR symbologies	Passport OCR

Mechanical

Dimensions (W xD x H)	30.7(W) x 45.0(D) x 10.1(H) mm (Maximum)
Weight	9.6g
Color	Black

Interface/Connection

Interface	USB-A

Temperature

Operating	-20°C to 40°C (-4°F to 104°F)
Storage	-40°C to 70°F (-40°F to 158°F)
Humidity (non-condensing)	5% to 95%

Power

Operating Voltage	5VDC±5%
Current at 5VDC	Operating: 300mA (RMS typical), 450mA (RMS max.)

HP Engage One Essential Peripherals

	Idle: <50mA
	Sleep: <1.5mA
Rated Power Consumption	1.5 W Typical

Drivers

Windows USB HID-KB and OPOS & JPOS (via USB-COM mode drivers)

Ambient Light	0- 100,000 lux
Water Penetration Protection	IP54

Operating System

Compatible with:	Windows 10 IoT Enterprise 2019 LTSC 64bit (RS5)
	SUSE Linux® Enterprise Desktop (64 bit)
	Ubuntu 12.04/14.04 LTS and above (64 bit)

Agency Certifications

FCC Part15, Class B, CE EMC Class B, IEC62471, RoHS, IEC 62368-1

Kit Contents

HP Engage One Pro Barcode Scanner, documentation, warranty card.

Overview - Service and Support

Service and Support

Ninety-day (90-90-90), one-year (1-1-1), and three-year (3-3-3) limited warranty delivers (ninety days/one year/three years) of on-site, next business day[2] service for parts and labor and complimentary limited technical support.[3] Three-year onsite and labor are not available in all countries. Service offer terms up to 5 years by choosing an optional HP Care Pack.[1] To choose the right level of service for your HP product, visit HP Care Pack Central: http://http://www.hp.com/go/cpc

NOTES:
1. Terms and conditions may vary by country. Certain restrictions and exclusions apply. Other warranty variations may be offered in your region.
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.
3. Technical support applies only to HP-configured Compaq and third-party HP-qualified hardware and software. 24 x 7 support may not be available in some countries.

Date of change:	Version History:		Description of change:
	From v1 to v2		

Microsoft, Windows, Windows 7, Windows 8, and Windows 10 are registered trademarks or trademarks of Microsoft Corporation in the U.S. and/or other countries. Intel®, Celeron®, Pentium® and Core™ are registered trademarks or trademarks of Intel Corporation in the U.S. and/or other countries. Linux is the registered trademark of Linus Torvalds in the U.S. and other countries. Bluetooth® is a registered trademark of its proprietor and used by HP Inc. under license. ENERGY STAR® is a registered trademark owned by the U.S. Environmental Protection Agency.