

Introduction

HP DOCK SOLUTIONS

Models Docking Stations

HP USB-C Dock G5	5TW10AA/5TW10UT/5TW10ET
HP USB-C/A Universal Dock G2	5TW13AA/5TW13UT/5TW13ET
HP 4.5 mm and USB-C Dock Adapter G2	6LX61AA
HP Thunderbolt™ Dock 120W G2 (discontinued)	2UK37AA/2UK37UT/2UK37ET
HP Thunderbolt™ Dock 230W G2 (discontinued)	2UK38AA/2UK38UT/2UK38ET
HP Thunderbolt™ Dock G2 w/ Combo Cable (discontinued)	3TR87AA/3TR87UT/3TR87ET
HP Thunderbolt™ Dock 120W G2 w/Audio (discontinued)	3YE87AA/3YE87UT/3YE87ET
HP Thunderbolt™ Dock G2 Audio Module (discontinued)	3AQ21AA/3AQ21UT/3AQ21ET



Introduction

Introduction

It is common practice to use more than one dock with your computer. There are users who have a dock at the office, carry a travel hub or dock for use while traveling and also have a dock at home.

There are many reasons to use a lock with your computer and your dock. The currently shipping docks:

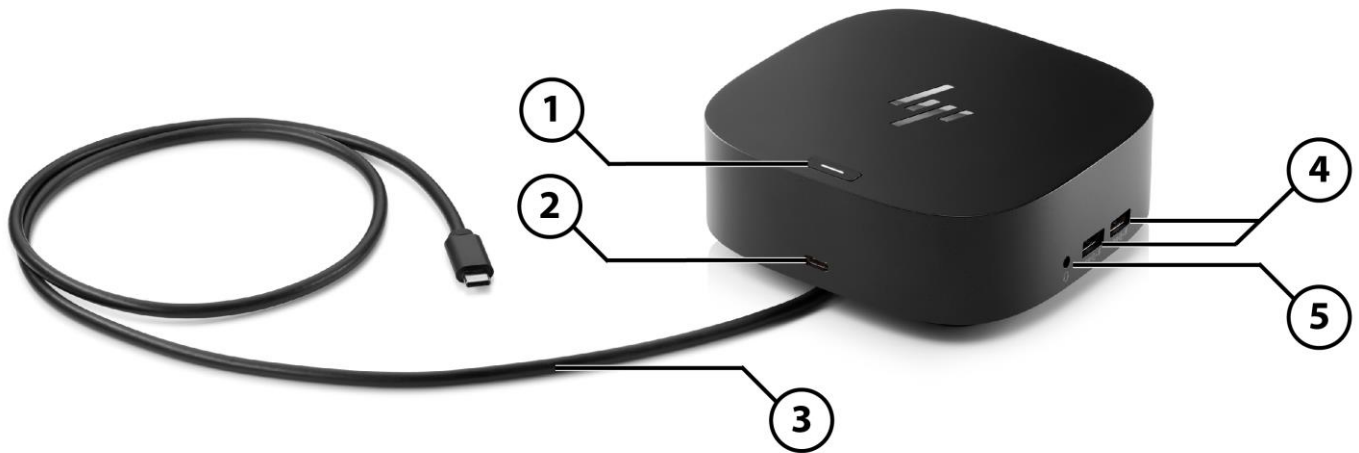
HP USB-C Dock G5	5TW10AA/5TW10UT/5TW10ET
HP USB-C/A Universal Dock G2	5TW13AA/5TW13UT/5TW13ET

are compatible with the following HP locks:

HP Dual Head Keyed Cable Lock	T1A64AA
HP Keyed Cable Lock 10mm	T1A62AA
HP Combination Lock	T0Y15AA

Technical Specifications

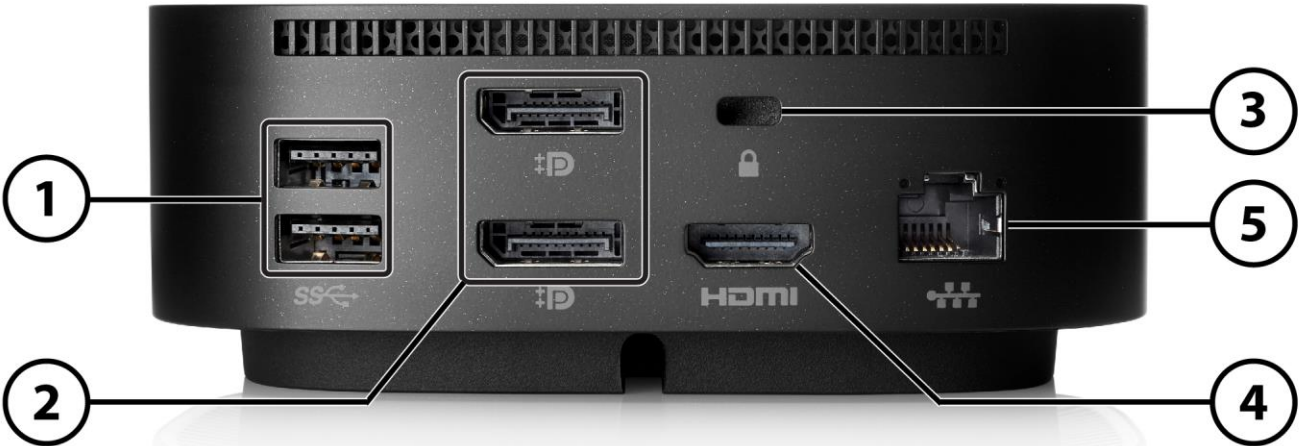
HP USB-C Dock G5



Front and Side View

- | | |
|---|-------------------------------------|
| 1. 1 LED power button | 4. 2 USB-A 3.2 Gen 1 charging ports |
| 2. 1 USB -C 3.2 port with data and power out (15W) | 5. 1 Combo audio jack |
| 3. 1 USB-C cable to connect to host system (1 meter length) | |

HP USB-C Dock G5



Back View

- | | | | |
|----|----------------------------------|----|-----------------|
| 1. | 2 USB-A 3.2 Gen 1 charging ports | 4. | 1 HDMI 2.0 port |
| 2. | 2 DisplayPort™ 1.4 ports | 5. | 1 RJ45 port |
| 3. | 1 Standard lock slot | | |



Bottom View

1. 1. Insert 4.5 mm barrel from included 120W power supply.

Technical Specifications

Components	
Part number	5TW10AA/5TW10UT/5TW10ET
Product dimensions (LxWxH)	4.80 x 4.80 x 1.77 in (122 x 122 x 45 mm)
Package dimensions (LxWxH)	7.63 x 6.18 x 6.57 in (194 x 157 x 167 mm)
Weight	1.49 lb (0.68 kg)
Top components	Mechanical power button with LED indicator to power or wake host system ¹
Front components	1 x USB-C 3.2 Gen 1 port with data and power out (15W) 1 x USB-C cable to connect to host system (1 meter cable length)
Side components	2 x USB-A 3.2 Gen 1 charging ports 1 x Combo audio jack
Back components	2 x USB-A 3.2 Gen 1 charging ports 2 x DisplayPort™ 1.4 ports 1 x RJ45 port (10/100/1000) 1 x HDMI 2.0 port 1 x Standard lock slot
External monitor support	For hosts that support DisplayPort 1.4 with Display Stream Compression: 3x FHD @ 60 Hz 3x QHD @ 60 Hz 3x 4k @ 60 Hz For hosts that support DisplayPort 1.3/1.4: 3x FHD @ 60 Hz 3x QHD @ 60 Hz 2x 4K @ 60 Hz For hosts that support DisplayPort 1.2: 3x FHD @ 60 Hz 2x QHD @ 60 Hz 1x 4K @ 60 Hz
Networking	Supports 1 Gb of Ethernet
Network manageability features	eTag Disconnected Firmware updates PXE Boot Wake on LAN (from the Off, Sleep or Hibernation States ²) MAC address pass-through (from the On, Off, Sleep or Hibernation States ³) WLAN-LAN Switching
Power to system	Up to 100W via USB-C ⁴ . Up to 75W on non HP machines. Separate AC power needed for HP ZBooks that require more than 100W power delivered via USB-C alt mode.
Supported platforms	Tested and supported on the following 3rd party notebooks: Apple MacBook Pro 13 2022 (M2), Dell Latitude 5540 2022 (11th Gen Intel® Core™), Dell Latitude 7430 2022 (12th Gen Intel® Core™), Dell XPS 13 2022 (12th Gen Intel® Core™), Lenovo ThinkPad X1 Carbon Gen 9 2021 (11th Gen Intel® Core™), Lenovo ThinkPad X1 Carbon Gen 10 2022 (12th Gen Intel® Core™).
Power to host (USB-C PD)	5V, 9V, 10V, 12V, 15V, 20V all at 5A MAX
Supported operating systems	Windows 11 21H2



Technical Specifications

	Windows 11 22H2 Windows 10 RS4 Windows 10 RS5 Windows 10 19H1 Windows 10 19H2 Windows 10 20H1 Windows 10 20H2 Windows 10 21H1 Windows 10 21H2 Windows 10 22H2 ChromeOS v92.0.4515.157 ChromeOS M92 (HP notebooks only) ChromeOS M93 (HP notebooks only) ThinPro 8.0 Windows 10 IoT Enterprise LTSC 2021 macOS Monterey v12.0 macOS Big Sur 11.5.2
Power adapter	120W
Security slot type	1x Kensington Lock Slot ⁵
Power barrel connector	4.5mm

1. For USB-C functionality, host PC must support the DisplayPort™ Alt mode protocol through its USB-C port. Thunderbolt™-enabled notebooks will function at USB-C speeds. Charging and port replication is supported on notebooks that have implemented USB-C industry specifications. Power button to turn on or wake the system, Wake-on LAN from warm and cold dock, Wake-on LAN from S4/S5, and MAC Address Pass-Through S0, S3, S4, S5 warm and cold dock features only function on HP or HP-supported notebooks. HP does not provide Ethernet and audio drivers on Mac PCs.

2. Your computer might support Wake on LAN from the Off, Sleep or Hibernate States, or only when the computer is On or in Sleep.

3. Your computer might support MAC address pass-through the On, Off, Sleep or Hibernate States, or only when the computer is On or in Sleep.

4. Due to Qualcomm system limitations, users can either enable the dock to charge the PC or allow PC to charge external devices through USB-C ports when PC is in S4 (hibernation) or S5 (off) state. The “USB-C Charging” setting in F10 settings is currently set to disabled, which allows the dock to charge the PC but disables the PC’s capability to charge external devices through USB-C ports in S4/S5. Devices can be charged via USB-A on the PC or any USB port on the dock. To change this, visit the “USB-C Charging” setting in F10 and change to enable and connect the PC’s AC adapter to continue use with the dock.

5. Compatible with the following HP locks: T1A62AA HP Keyed Cable Lock 10mm, T1A63AA HP Keyed Cable Lock 10mm (master), T1A64AA HP Dual Headed Keyed Cable Lock 10mm, T1A65AA HP Dual Headed Keyed Cable Lock 10mm (master), TOY16AA HP Essential Combination Lock, TOY15AA HP Combination Lock.

NOTE: The DSC supported version and color format depends on GFX capability. DSC is disabled when display is attached to the VGA port or to an external DP2 VGA dongle.

Video Resolution (Continue on the next page)

Video resolution and support is dependent on the maximum capability of the notebook.¹

This table shows which ports to use to achieve the display configuration.

	Display Configurations	Output ports
Single Display	(1) 2.5k Display	Any port
	(1) 4k Display	Any port
	(1) 5K single cable*	Either DP port
	(1) 5K dual cable	Both DP ports
	(1) 8K dual cable	Both DP ports
	(1) 8K single cable*	Either DP port
Dual Displays	(2) FHD Displays	Any 2 ports

Technical Specifications

	(2) 2.5k Displays	Any 2 ports
	(1) 4K and (1) FHD	Any 2 ports
	(2) 4k Displays	Any 2 ports
	(1) 5K single* + 1 FHD	5K on either DP, FHD on any other port
	(1) 5K dual cable + 1 FHD	Both DP ports for 5K and FHD on HDMI
Triple Displays	(3) 1680 x 1050 Displays	All 3 ports
	(3) FHD Displays	All 3 ports
	(2) 2.5K and (1) FHD	Any 3 ports
	(3) 2.5K	All 3 ports
	(1) 4K + (1) 2.5k + (1) FHD	Any 3 ports
	(1) 4k and (2) 2.5k Displays	Any 3 ports
	(2) 4K and (1) FHD	Any 3 ports
	(3) 4K	Any 3 ports
	(2) 5K single cable* and (1) 4K	5K on either DP, 4K on HDMI

1. For Chrome users, dual displays are supported at full HD. Triple displays are only supported on select Chromebox machines. For Apple users, the maximum display resolution using Apple is one display on a DP 1.4 host at UHD@60Hz. On an Apple DP 1.2 host you will get QHD~2.5K

NOTE*: Information provided for when single cable 5K and 8K displays are available on the market.

Video Resolution							
	Display Configurations ¹	Host					
		High Res mode DP Alt Mode (DP x4)			Multi-Function (default)(DP x2)		
		DP 1.2	DP 1.3/1.4	DP 1.4w/DSC**	DP 1.2 MF	DP1.3/1.4MF	DP1.4 MF w/DSC**
Single Display	(1) 2.5K Display	Y	Y	Y	Y	Y	Y
	(1) 4K Display	Y	Y	Y		Y	Y
	(1) 5K single cable*		Y	Y			Y
	(1) 5K dual cable	Y (D5)	Y (D5)	Y (D5)			Y (D5)
	(1) 8K dual cable			Y (D5)			
	(1) 8K single cable*			Y			
Dual Displays	(2) FHD Displays	Y	Y	Y	Y	Y	Y
	(2) 2.5K Displays	Y	Y	Y		Y	Y
	(1) 4K and (1) FHD	Y	Y	Y		Y (D3)	Y
	(2) 4K Displays		Y (D1)	Y			Y
	(1) 5K single* + 1 FHD		Y (D4)	Y			Y
	(1) 5K dual cable + 1 FHD			Y (D5)			Y (D5)
Triple Displays	(3) 1680 x 1050 Displays	Y	Y	Y	Y	Y	Y
	(3) FHD Displays	Y	Y	Y		Y	Y
	(2) 2.5K and (1) FHD	Y	Y	Y			Y
	(3) 2.5K		Y	Y			Y
	(1) 4K + (1) 2.5K + (1) FHD		Y	Y			Y
	(1) 4K and (2) 2.5K Displays		Y (D1)	Y			Y

Technical Specifications

	(2) 4K and (1) FHD			Y			Y (D2)
	(3) 4K			Y			
	(2) 5K single cable* and (1) 4K			Y			

1. Assumes the host supports up to 3 simultaneous displays with no resolution limitations. Some lower power processors may have a resolution limitation.

NOTES:

D1 - Only supports up to 3840 x 2160 (UHD 4K)

D2 - Only supports up to dual 3840 x 2160 (UHD 4K) and 1920 x 1080 (FHD)

D3 - Only supports up to 4096 x 2160 (4K) @ 30Hz

D4 - Supports up to 5120 x 2880 (5K) and 1920 x 1080 (FHD) with reduced blanking timing

D5 - Both DP cables must be connected to the same graphics controller and the graphics driver must support the tile display feature under MST. Currently, no GPU (in 2019) supports tiled 5K and 8K over MST. However, it is possible that future GPUs may add this support.

Unless noted, displays are driven @ 60Hz, 8bpp

*Information provided for when single cable 5K and 8K displays are available on the market.

** The DSC supported version and color format depends on GFX capability. DSC is disabled when display is attached to the VGA port or to an external DP2VGA dongle.

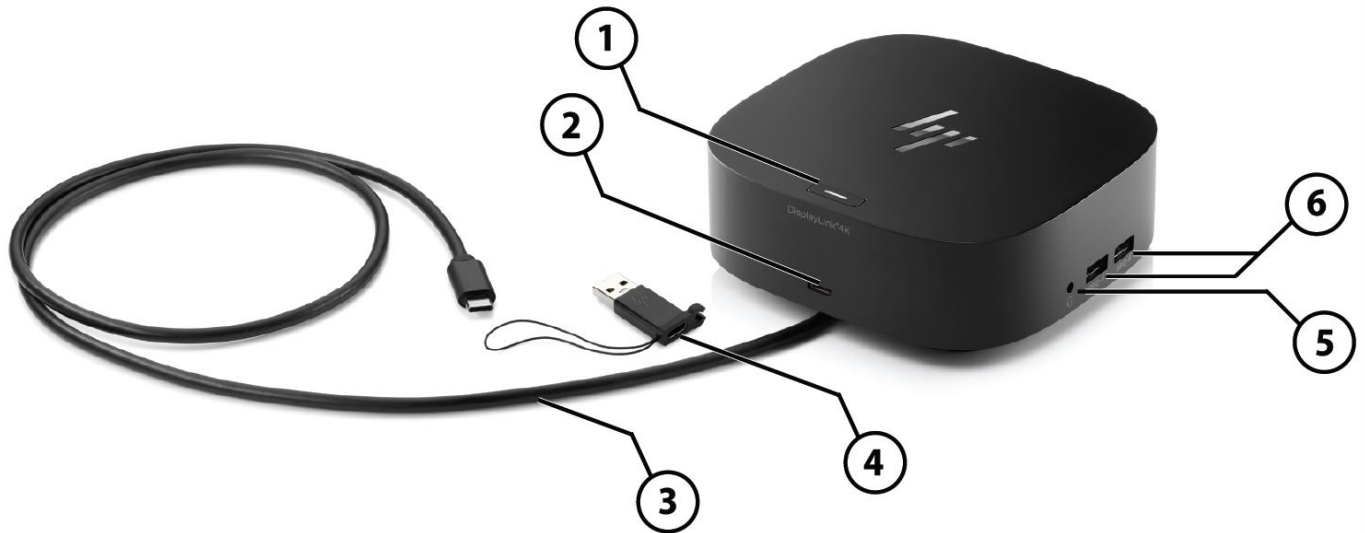
FHD = 1920 x 1200 or 1920 x 1080

2.5K = 2560 x 1600 or 2560 x 1440

4K = 4096 x 2160 or 3840 x 2160

5K = 5120 x 2880

HP USB-C/A Universal Dock G2



Front and Side View

- | | |
|---|-------------------------------|
| 1. 1 LED power button | 4. USB-A Adapter |
| 2. 1 Type-C USB 3.2 port with data and power out (15W) | 5. 1 Combo audio jack |
| 3. 1 USB-C cable to connect to host system (1 meter length) | 6. 2 USB-A 3.2 charging ports |

HP USB-C/A Universal Dock G2



Back View

- | | | | |
|----|----------------------------|----|-----------------|
| 1. | 2 USB-A 3.2 charging ports | 4. | 1 HDMI 2.0 port |
| 2. | 2 DisplayPort™ 1.2 ports | 5. | 1 RJ45 port |
| 3. | 1 Standard lock slot | | |



Bottom View

1. Insert 4.5 mm barrel from included 120W power supply.

Technical Specifications

Components

This table shows how to achieve the resolutions provided in the previous table. Please refer to the notes at the bottom of the table.

Part number	5TW13AA/5TW13UT/5TW13ET
Product dimensions (L x W x H)	4.80 x 4.80 x 1.77 in (122 x 122 x 45 mm)
Package dimensions (L x W x H)	7.63 x 6.18 x 6.57 in (194 x 157 x 167 mm)
Weight	1.53 lb (0.695 kg)
Top components	Mechanical power button with LED indicator to power or wake host system ¹
Front components	1 x USB-C 3.2 Gen 1 port with data and power out (15W) 1 x USB-C cable to connect to host system (1 meter cable length)
Side components	2 x USB-A 3.2 Gen 1 charging ports 1 x Combo audio jack
Back components	2 x USB-A 3.2 Gen 1 charging ports 2 x DisplayPort™ 1.2 ports 1 x RJ45 port (10/100/1000) 1 x HDMI 2.0 port 1 x Standard lock slot
External monitor support	For hosts that support DisplayPort 1.4 with Display Stream Compression: 3x FHD @ 60 Hz 3x QHD @ 60 Hz 3x 4K @ 60 Hz For hosts that support DisplayPort 1.3/1.4: 3x FHD @ 60 Hz 3x QHD @ 60 Hz 2x 4K @ 60 Hz For hosts support DisplayPort 1.2: 3x FHD @ 60 Hz 2x QHD @ 60 Hz 1x 4K @ 60 Hz
Networking	Supports 1 Gb of Ethernet
Network manageability features	eTag Disconnected Firmware updates PXE Boot Wake on LAN (from the Off, Sleep or Hibernation States ²) MAC address pass-through (from the On, Off, Sleep or Hibernation States ³) WLAN-LAN Switching
Power to system	Up to 100W via USB-C. Up to 75W on non HP machines. Separate AC power needed for HP ZBooks that require more than 100W power delivered via USB-C alt mode.
Supported platforms	Tested and supported on the following 3rd party notebooks" part should read: Tested and supported on the following 3rd party notebooks: Apple MacBook Pro 13 2022 (M2), Dell Latitude 5540 2022 (11th Gen Intel® Core™), Dell Latitude 7430 2022 (12th Gen Intel® Core™), Dell XPS 13 2022 (12th Gen Intel® Core™), Lenovo ThinkPad X1 Carbon Gen 10 2022 (12th Gen Intel® Core™).
Power to host (USB-C PD)	5V, 9V, 10V, 12V, 15V, 20V all at 5A MAX
Supported operating systems	Windows 11 21H2 Windows 11 22H2



Technical Specifications

	Windows 10 RS4 Windows 10 RS5 Windows 10 19H1 Windows 10 19H2 Windows 10 20H1 Windows 10 20H2 Windows 10 21H1 Windows 10 21H2 Windows 10 22H2 Windows 7ChromeOS v92.0.4515.157 ChromeOS M92 (HP notebooks only) ChromeOS M93 (HP notebooks only) ThinPro 8.0 Windows 10 IoT Enterprise LTSC 2021 macOS Monterey v12.0 macOS Big Sur 11.5.2
Drivers	DisplayLink drivers must be downloaded either through the HP support site or via Microsoft Windows updates.
Power Adapter	120W
Security Slot Type	1x Kensington Lock Slot ⁴
Power Barrel Connector	4.5mm

1. For USB-C functionality, host PC must support the DisplayPort™ Alt mode protocol through its USB-C port. Thunderbolt™-enabled notebooks will function at USB-C speeds. Charging and port replication is supported on notebooks that have implemented USB-C industry specifications. Power button to turn on or wake the system, Wake-on LAN from warm and cold dock, Wake-on LAN from S4/S5, and MAC Address Pass-Through S0, S3, S4, S5 warm and cold dock features only function on HP or HP-supported notebooks. HP does not provide Ethernet and audio drivers on Mac PCs.

2. Your computer might support Wake on LAN from the Off, Sleep or Hibernate States, or only when the computer is On or in Sleep.

3. Your computer might support MAC address pass-through the On, Off, Sleep or Hibernate States, or only when the computer is On or in Sleep.

4. Compatible with the following HP locks: T1A62AA HP Keyed Cable Lock 10mm, T1A63AA HP Keyed Cable Lock 10mm (master), T1A64AA HP Dual Headed Keyed Cable Lock 10mm, T1A65AA HP Dual Headed Keyed Cable Lock 10mm (master), TOY16AA HP Essential Combination Lock, TOY15AA HP Combination Lock.

Technical Specifications

Video Resolution

Video resolution and support is dependent on the maximum capability of the notebook.

	Display Configurations ¹	DP1	DP2	HDMI	Host		
					Multi-Function (default)(x2 DP)		
					DP 1.2 MF	DP1.3/1.4MF	DP1.4 MF w/DSC
Single Display	(1) 4K Display	Any port					
	(1) 5K dual cable	Both DP ports					
Dual Displays	(2) 4K Displays	Any 2 ports *D1					
	(1) 5K dual cable + (1) 2.5K	Both DP ports for 5K and 2.5K on HDMI			Y	Y	Y
	(1) 5K dual cable + (1) 4K	Both DP ports for 5K and 4K on HDMI			Y (D2)	Y (D1)	Y
Triple Displays	(3) 2.5K Displays	All 3 ports			Y	Y	Y
	(2) 4K Displays + (1) 2.5K	4K on DP ports *D1, 2.5k on HDMI			Y	Y	Y
	(3) 4K Displays	4K on DP ports *D1 and 4K on HDMI			Y (D2)	Y (D1)	Y

High Res Video Resolution

	Display Configurations/High Resolution Mode ¹	DP1	DP2	HDMI	Host		
					High Res mode DP Alt Mode (DP x4) **		
					DP 1.2	DP1.3/1.4	DP1.4 w/DSC
Single Display	(1) 4K Display	Any port ²			Y	Y	Y
Dual Displays	(2) 4k Displays	Any 2 ports; DP ports limited to UHD 4K ²			Y	Y	Y
Triple Displays	(3) 4K Displays	4K on both DP ports (D1) and 4K on HDMI ²			Y	Y	Y

1. Assumes the host supports up to 3 simultaneous displays with no resolution limitations. Some lower power processors may have a resolution limitation.

2. In High Res mode, DisplayLink is running at USB2.0 speeds. This has a significant performance impact on DP1 and DP2 output.

NOTES:

D1 - Only supports 3840 x 2160 (UHD 4K)

D2 - Only supports 4096 x 2160 (4K @ 30Hz) on HDMI

**DP host is only applicable to the HDMI output when BOTH DP ports are active, or when the host is in High Res mode

Unless noted, displays are driven @ 60Hz, 8bpp

FHD = 1920 x 1200 or 1920 x 1080

2.5K = 2560 x 1600 or 2560 x 1440

4K = 4096 x 2160 or 3840 x 2160

5K = 5120 x 2880

HP 4.5 mm and USB-C Dock Adapter G2



1. 1 Type-C USB 3.2 port to connect your HP USB-C/A Universal Dock G2 Type-C cable
2. 1 4.5 mm barrel AC adapter (65 W)
3. 1 Type-A USB 3.2 Plug Port



HP 4.5 mm and USB-C Dock Adapter G2 shown with the HP USB-C/A Universal Dock G2

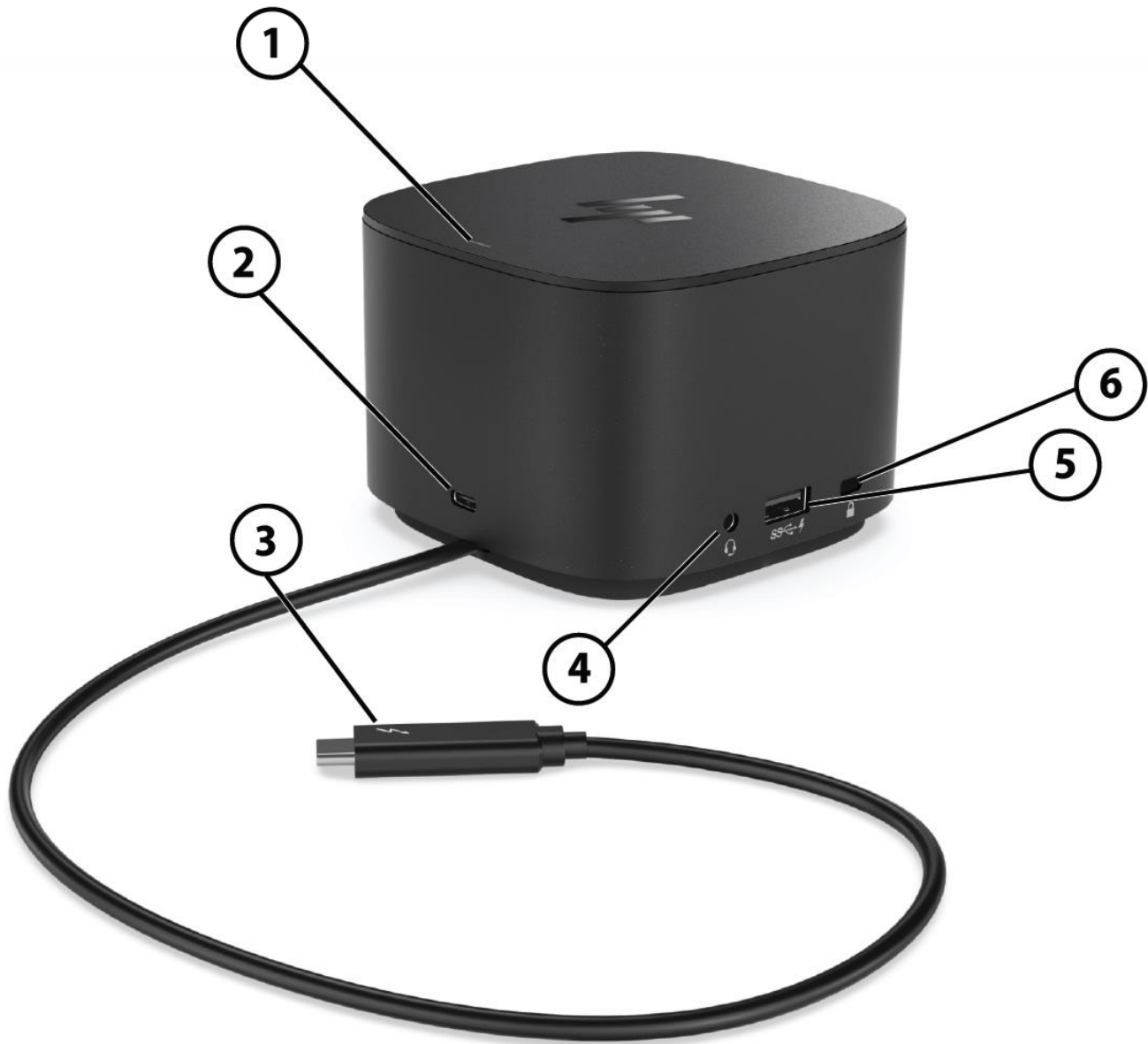
Technical Specifications

Components	
Part number	6LX61AA
Model number	HSA-Q001
Dimensions	without cable: 1.77 x 1.33 x 0.39 in (45 x 34 x 10 mm) with cable: 8.14 x 1.33 x 0.39 in (206.9 x 34 x 10 mm)
Weight	0.053 lb (0.024 kg)
Front components	1 x Type-A USB 3.2 Plug Port (USB signal only) 1 x 4.5 mm DC Barrel Plug Connector (Power only)
Rear components	USB-C Receptacle (USB signal + PD power)
Input power	20V/3.3A (66W) max
Output power	20V/3.25A (65W) max
Supported operating systems	Windows 7 and above, Windows10 S4, Chrome
Normal operation voltage	20V
Average operation power	0.7W
Max operation power	1W
Temperature (operation)	32~104 F (0~°C)
Temperature (non-operation)	-4~140 F (-20~+60°C)
Relative humidity (operation)	20%~90% RH, non-condensing
Relative humidity (non-operation)	20%~95% RH, non-condensing
Altitude (operation)	10000ft (3048m)
Altitude (non-operation)	30000ft (9144m)
Shock (operation)	40G, 2 ms, half-sine
Shock (non-operation)	240G, 2 ms, half-sine
Random vibration (operation)	~0.21Grms, 50~2000 Hz
Random vibration (non-operation)	~2.09Grms, 50~2000, non-operating
Option kit contents	HP 4.5mm and USB-C Dock Adapter G2
Supported platform	HP USB-C/A Universal Dock G2

NOTE: The HP 4.5mm and USB-C Dock Adapter G2 is only compatible with the HP USB-C/A Universal Dock G2.

Technical Specifications

HP Thunderbolt™ Dock G2 – (120W/230W) *(discontinued)*



- | | |
|--|--------------------------------------|
| 1. 1 power button ¹ | 4. 1 headphone/microphone combo jack |
| 2. 1 USB-C® 3.2 Gen 2 port with data and power out (15W) | 5. 1 USB-A 3.2 Gen 1 charging port |
| 3. 1 USB-C cable to connect to host system (0.7m cable length) | 6. 1 standard lock slot |

1. The dock power button is not functional when connected to non-supported HP notebooks or non-HP notebooks.

Technical Specifications

HP Thunderbolt™ Dock G2 – Back side (120W/230W) *(discontinued)*



- | | | | |
|-----|---|-----|--------------------------------|
| 7. | 2 USB-A 3.2 Gen 1 ports | 11. | 1 Ethernet port |
| 8. | 1 VGA port | 12. | 1 AC Adapter connector (7.4mm) |
| 9. | 2 DisplayPort™ 1.4 ports | 13. | 1 Thunderbolt™ port |
| 10. | 1 USB-C 3.2 Gen 2 port with DisplayPort™ 1.4 data and power out (15W) | | |

Technical Specifications

Components	
Part number	2UK37AA/2UK37UT/2UK37ET - HP Thunderbolt Dock 120W G2 2UK38AA/2UK38UT/2UK38ET - HP Thunderbolt Dock 230W G2
Ports	1 x USB-C 3.2 Gen 2 port with data and power out (15W) 1 x Type-C USB 3.2 Gen 2 port with DisplayPort™ 1.4 data and power out (15W) 1 x USB-C Thunderbolt™ port 1 x USB-A 3.2 Gen 1 ports 1 x USB-A 3.2 Gen 1 charging port 1 x Power adapter port 2 x DisplayPort™ 1.4 ports 1 x Ethernet port (10/100/1000) 1 x Combo audio port 1 x Standard lock slot
Dimensions (H x W x D)	3.9 x 3.9 x 2.7 in (98 x 98 x 69 mm)
Weight	1.76 lb (0.8 kg)
Top components	LED and power button to power or wake host system ¹
Front components	1 x USB-C 3.2 Gen 2 port with data and power out (15W) 1 x USB-C cable to connect to host system (0.7meter cable length)
Side components	1 x USB-A 3.2 Gen 1 charging port 1 x Combo audio Jack 1 x Standard lock slot
Back components	1 x Thunderbolt™ port 1 x USB-C 3.2 Gen 2 port with DisplayPort™ 1.4 data and power out (15W) 2 x DisplayPort™ 1.4 ports 1 x VGA port 2 x USB-A 3.2 Gen 1 ports 1 x RJ45 port 1 x AC adapter connector (7.4mm)
Network manageability features	PXE Boot Wake on LAN (from the Off, Sleep or Hibernation States ²) MAC Address Pass-Through (from the On, Off, Sleep or Hibernation States ³) WLAN-LAN Switching ⁴
External monitor support	For hosts that support DisplayPort 1.4 with Display Stream Compression: 3x FHD @ 60 Hz 3x QHD @ 60 Hz 3x 4K @ 60 Hz For hosts that support DisplayPort 1.3/1.4: 3x FHD @ 60 Hz 3x QHD @ 60 Hz 1x 4K @ 60Hz For hosts that support DisplayPort 1.2: 3x FHD @ 60 Hz 2x QHD @ 60 Hz 1x 4K @ 60Hz
Power delivery (PD) Profiles	5V/5A, 9V/5A, 12V/5A, 15V/5A, 20V/5A
Networking	Supports 1 Gb of Ethernet
Power to system	Up to 100W via USB-C. Up to 75W on non HP machines. For HP ZBooks that require more than 100W power delivery should use the 3TR87AA HP



Technical Specifications

Thunderbolt Dock 230W for 200W of power delivery.

Supported platforms	Tested and supported on select HP commercial notebooks. For HP notebook compatibility please visit: https://pcb.inc.hp.com/webapp/#!/us-en and search by notebook. Tested and supported on the following 3rd party notebooks: Apple MacBook Pro 16 2020 (Intel Coffee Lake), Apple MacBook Air 2020 (Intel Ice Lake), Apple MacBook Pro 13 2020 (M1 chip), Apple MacBook Air 13 2020 (M1 chip), Dell 5300 Chrome Enterprise 2020 (Whiskey Lake), Dell Latitude 5400 2020 (Whiskey Lake), Dell Latitude 7400 2020 (Whiskey Lake), Dell Latitude 7420 2021 (Tiger Lake-U), Lenovo Thinkbook 14 2020 (Ice Lake), Lenovo T14 2020 (AMD Renoir), and Lenovo X1 Carbon G8 Thinkpad 2020 (Whiskey Lake).
Operating voltage and current	19.7 V dc @ 6.1 A – 120W 19.7 V dc @ 11.8 A – 230W
Temperature (operating)	0 C to 35 C (32 F to 95 F)
Relative humidity noncondensing (operating)	10 % to 90 %
Maximum altitude unpressurized (operating)	15 m to 3,048 m (~ 50 ft to 10,000 ft)
Supported operating systems⁵	Windows 11 21H2 Windows 11 22H2 Windows 10 RS1 Windows 10 RS2 Windows 10 RS3 Windows 10 RS4 Windows 10 RS5 Windows 10 19H1 Windows 10 19H2 Windows 10 20H1 Windows 10 20H2 Windows 10 21H1 Windows 10 21H2 Windows 10 22H2 Windows 7 ChromeOS v92.0.4515.157 Linux Ubuntu 20.04 with 5.06 Kernel macOS Monterey v12.0 macOS Big Sur 11.5.2
Security slot type	1x Kensington Lock Slot ⁶

1. Requires host notebook to support in its BIOS.

2. Your computer might support Wake On LAN from the Off, Sleep or Hibernate States, or only when the computer is On or in Sleep.

3. Your computer might support MAC Address Pass-Through the On, Off, Sleep or Hibernate States, or only when the computer is On or in Sleep.

4. WLAN – LAN switching is supported only on select computers running Windows 10 operating system.

5. The HP Thunderbolt™ Dock G2 is designed to USB-C/Thunderbolt™ industry specs and will support charging and port replication for notebooks that have implemented USB-C and Thunderbolt™ industry specifications.

Thunderbolt™ host systems require Thunderbolt™ software (minimum SW17.x).

Ethernet and audio drivers need to be installed separately on non-HP Windows systems for headset auto switching functionality. Drivers available on HP Support website.

For MacOS PCs, HP does not provide Ethernet and audio drivers.

Firmware updates on Window-based host systems only.

Certain features are not functional on non-HP supported nor non-HP notebooks (see points below):

Power button to turn on or wake the system.

Wake on LAN from warm and cold dock.

Wake on LAN from S4/S5.

MAC Address Pass-Through S0, S3, S4, S5 warm and cold dock.

6. Compatible with the following HP locks: T1A62AA HP Keyed Cable Lock 10mm, T1A63AA HP Keyed Cable Lock 10mm (master), T1A64AA HP

Technical Specifications

Dual Headed Keyed Cable Lock 10mm, T1A65AA HP Dual Headed Keyed Cable Lock 10mm (master), TOY16AA HP Essential Combination Lock, TOY15AA HP Combination Lock.

Technical Specifications

HP Thunderbolt™ Dock G2 Video resolution specifications			
HP Thunderbolt™ Dock G2 video resolution specifications when the dock is connected to a Thunderbolt™ system:			
Host Specification	# of displays	Resolution	Supported configuration
DP 1.2 Thunderbolt™ host	1	(1) 4096x2160 @ 60Hz	1 DP or 1 TB or 1 USB-C alt mode
	2	(2) 4096 x 2160 @ 60Hz	1 DP + 1 TB port or 1 USB-C Alt mode port + 1 TB port
	3	(1) 4096 x 2160 @ 60Hz + (2) 2560 x 1440 @ 60Hz	(1) 4096 x 2160 @ 60Hz from TB port (2) 2560x1440 @ 60Hz from DP ports or DP + USB-C Alt
	4	(1) 4096 x 2160 @ 60Hz + (2) 2560 x 1440 @ 60Hz+ (1) 1920 x 1080 @ 60Hz	(1) 4096 x 2160 @ 60Hz from TB port (2) 2560x1440 @ 60Hz from DP ports or DP + USB-C alt (1) 1920 x 1080 @ 60Hz from DP or USB-C Alt mode
Host Specification	# of displays on dock	Resolution	Supported configuration
DP 1.3 Thunderbolt™ host	1	(1) 5120 x 2880 @ 60Hz	1 DP or 1 TB or 1 USB-C alt mode
	2	(2) 4096 x 2160 @ 60Hz	1 DP + 1 TB port or 1 USB-C alt mode + 1 TB port
	2	(2) 3840 x 2160 @ 60Hz	2 DP ports or 1 DP + 1 USB-C Alt mode port or 1 DP + 1 TB port or 1 TB + 1 USB-C alt mode
	3	(2) 3840 x 2160 @ 60Hz + (1) 1920 x 1200 @ 60Hz	(2) 3840 x 2160@60Hz from DP ports or DP + USB-C alt (1) 1920x1200 @ 60Hz from TB port
	3	(3) 2560 x 1600 @ 60hz	2 DP ports + USB-C Alt mode
	4	(1) 3840 x 2160 @ 60Hz + (2) 2560 x 1440 @ 60Hz+ (1)1920 x 1200 @ 60Hz	(1) 3840x2160 @ 60Hz from DP or USB-C Alt mode (2) 2560x1440 @ 60Hz from DP ports or DP + USB-C alt (1) 1920 x 1200@ 60Hz from TB port

NOTE: Chart is based on 8bit DP1.2 displays (except for 5120x2880 single cable display)

NOTE: with a DP1.3 Thunderbolt™ host, when 3 or more displays are attached, the Thunderbolt™ port is limited to a 1920x1200 @ 60hz DP1.2 display, or a 2560x1440@60hz DP1.3 display.

Technical Specifications

HP Thunderbolt™ Dock G2 video resolution specifications when the dock is connected to a USB-C alt-mode system ¹ :		
Host Specification	# of monitors	
DP 1.2 USB-C host	1	2560x1440 @ 60Hz
	2	1920x1200 @ 60Hz
	3	(1) 1920x1200 @ 60Hz (2) 1280x768 @ 60Hz
DP 1.3 USB-C host	1	3840x2160 @ 60hz
	2	2560x1600 @ 60Hz
	3	(1) 2560x1600 @ 60Hz (2) 1680x1050 @ 60Hz
	4	1680 x 1050 @ 60Hz (requires MST)

1. USB-C systems will perform at USB 3.0 Gen1 speeds
Thunderbolt™ port will function as a USB 2.0 port with only data and power out (15W); no video

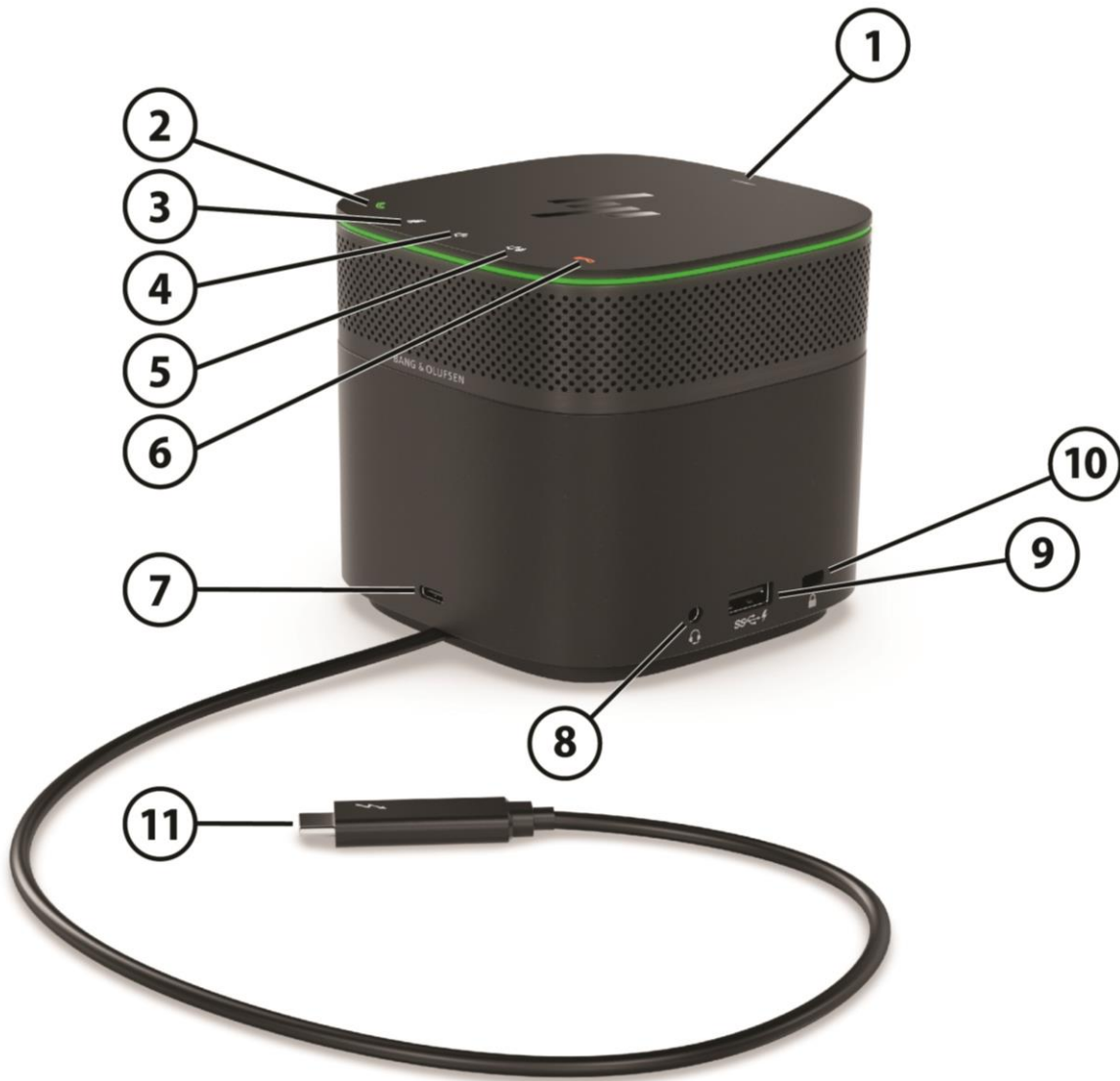
HP Thunderbolt™ Dock G2 cable types

		
HP TB Dock G2 120W cable	HP TB Dock G2 230W cable*	HP TB Dock G2 Combo Cable*
Part #: 3XB94AA	Part #: 3XB95AA	Part #: 3XB96AA

*NOTE: Requires 230W AC adapter

Technical Specifications

HP Thunderbolt™ Dock 120W G2 w/Audio (discontinued)



- | | |
|--|---|
| 1. LED indicator (power button to power, wake, sleep host system) ¹ | 6. Hang up / decline call |
| 2. Pick up / accept / hold call | 7. 1 USB-C 3.2 Gen 2 port with data and power out (15W) |
| 3. Mic Mute | 8. 1 headphone/microphone combo jack |
| 4. Volume down | 9. 1 USB-A 3.2 Gen 1 charging port |
| 5. Volume up | 10. 1 Standard lock slot |
| | 11. 1 USB-C cable to connect to host system (0.7m cable length) |

1. The dock power button is not functional when connected to non-supported HP notebooks or non-HP notebooks.

Technical Specifications

HP Thunderbolt™ Dock 120W G2 w/Audio – Back View *(discontinued)*



- 11. 2 USB-A 3.2 Gen 1 ports
- 12. 1 VGA port
- 13. 2 DisplayPort™ 1.4 ports
- 14. 1 USB-C 3.2 Gen 2 port with DisplayPort™ 1.4 data and power out (15W)

- 15. 1 Ethernet port
- 16. 1 AC adapter connector (7.4mm)
- 17. 1 Thunderbolt™ port

Technical Specifications

Components	
Part number	3YE87AA/3YE87UT/3YE87ET
Ports	1 x USB-C 3.2 Gen 2 port with data and power out (15W) 1 x USB-C cable to connect to host system (0.7m cable length) 1 x USB-A 3.2 Gen 1 charging port 1 x Combo audio jack 1 x Standard lock slot 1 x Thunderbolt™ port 1 x USB-C 3.2 Gen 2 port with DisplayPort™ 1.4 data and power out (15W) 2 x DisplayPort™ 1.4 ports 1 x VGA port 2 x USB-A 3.2 ports 1 x RJ45 port 1 x AC adapter
Dimensions (HxWxD)	3.9 x 3.9 x 4.5 in (98 x 98 x 114 mm)
Weight	2 lb (0.91 kg)
Top components¹	LED indicator (power button ² to power, wake, sleep host system) Pick up / accept / hold call Mic mute Volume up Volume down Hang up / decline call NOTE: This feature requires Skype for Business or Lync 2013 running on Microsoft Exchange or Office 365 servers.
Front components	1 x USB-C 3.2 port with data and power out (15W) 1 x USB-C cable to connect to host system (0.7m cable length)
Side components	1 x USB-A 3.2 Gen 1 charging port 1 x Combo audio jack 1 x Standard lock slot
Back components	1 x Thunderbolt™ port 1 x USB-C 3.2 Gen 2 port with DisplayPort™ 1.4 data and power out (15W) 2 x DisplayPort™ 1.4 ports 1 x VGA port 2 x USB-A 3.2 Gen 1 ports 1 x RJ45 port 1 x AC adapter
Network manageability features	PXE Boot Wake on Lan (from the Off, Sleep or Hibernation States ³) MAC Address Pass-Through (from the On, Off, Sleep or Hibernation States ⁴) WLAN-LAN Switching ⁴
External monitor support	For hosts that support DisplayPort 1.4 with Display Stream Compression: 3x FHD @ 60 Hz 3x QHD @ 60 Hz 3x 4K @ 60 Hz For hosts that support DisplayPort 1.3/1.4: 3x FHD @ 60 Hz 3x QHD @ 60 Hz 1x 4K @ 60Hz For hosts that support DisplayPort 1.2:



Technical Specifications

	3x FHD @ 60 Hz 2x QHD @ 60 Hz 1x 4K @ 60Hz
Supported platforms	Tested and supported on select HP commercial notebooks. For HP notebook compatibility please visit - https://pcb.inc.hp.com/webapp/#!/us-en and search by notebook. Tested and supported on the following 3rd party notebooks: Apple MacBook Pro 16 2020 (Intel Coffee Lake), Apple MacBook Air 2020 (Intel Ice Lake), Apple MacBook Pro 13 2020 (M1 chip), Apple MacBook Air 13 2020 (M1 chip), Dell 5300 Chrome Enterprise 2020 (Whiskey Lake), Dell Latitude 5400 2020 (Whiskey Lake), Dell Latitude 7400 2020 (Whiskey Lake), Dell Latitude 7420 2021 (Tiger Lake-U), Lenovo Thinkbook 14 2020 (Ice Lake), Lenovo T14 2020 (AMD Renoir), and Lenovo X1 Carbon G8 Thinkpad 2020 (Whiskey Lake).
Power delivery (PD) profiles	PD 3.0: 5V/5A, 9V/5A, 12V/5A, 15V/5A, 20V/5A
Networking	Supports 1 Gb of Ethernet
Speaker rated power	2W
Operating voltage and current	19.7 V dc @ 6.1 A – 120W 19.7 V dc @ 11.8 A – 230W
Temperature (operating)	0° C to 35° C (32° F to 95° F)
Relative humidity noncondensing (operating)	10 % to 90 %
Maximum altitude unpressurized (operating)	15 m to 3,048 m (- 50 ft to 10,000 ft)
Supported operating systems	Windows 11 21H2 Windows 11 22H2 Windows 10 RS1 Windows 10 RS2 Windows 10 RS3 Windows 10 RS4 Windows 10 RS5 Windows 10 19H1 Windows 10 19H2 Windows 10 20H1 Windows 10 20H2 Windows 10 21H1 Windows 10 21H2 Windows 10 22H2 Windows 7 ChromeOS v92.0.4515.157 Linux Ubuntu 20.04 with 5.06 Kernel macOS Monterey v12.0 macOS Big Sur 11.5.2 ⁵
LED colored ring	Incoming call (blinking green) On call (solid green) On muted call (solid red) Hold (blinking green)
Speakers/mics	Two side-firing speakers and two microphones
Microphone type	Omni-directional
Analog audio	Yes
Number of channels	Stereo (left and right channels)
Power to system	Up to 100W via USB-C. Up to 75W on non HP machines. For HP ZBooks that require more than 100W power delivery should use the host platforms

Technical Specifications

AC adapter for additional power.

1. Some audio buttons no longer work with Skype due to Microsoft changes in support. Some do not work with Teams or Zoom.
2. The dock power button is not functional when connected to non-supported HP notebooks or non-HP notebooks.
3. Your computer might support Wake On Lan from the Off, Sleep or Hibernate States, or only when the computer is On or in Sleep.
4. Your computer might support MAC Address Pass-Through the On, Off, Sleep or Hibernate States, or only when the computer is On or in Sleep.
5. WLAN – LAN switching is supported only on select computers running Windows 10 operating system.

NOTE: For video specifications, please refer to page 16 of this quick specs

HP Thunderbolt™ Dock G2 Audio Module



- | | |
|--|---------------------------|
| 1. LED indicator (power button to power, wake, sleep host system) ¹ | 4. Volume down |
| 2. Pick up / accept / hold call | 5. Volume up |
| 3. Mic Mute | 6. Hang up / decline call |

1. The dock power button is not functional when connected to non-supported HP notebooks or non-HP notebooks.

NOTE: Some audio buttons no longer work with Skype due to Microsoft changes in support. Some do not work with Teams or Zoom.

Technical Specifications

Components	
Part number	3AQ21AA/3AQ21UT/3AQ21ET
Dimensions (H x W x D)	3.9 x 3.9 x 1.28 in (98 x 98 x 32.5 mm)
Weight	0.66 lb (0.30 kg)
Top cover buttons	LED indicator (power button to power, wake, sleep host system) Pick up / accept / hold call Mic Mute Volume up Volume down Hang up / decline call NOTE: This feature requires Skype for Business or Lync 2013 running on Microsoft Exchange or Office 365 servers.
LED colored ring	Incoming call (blinking green) On call (solid green) On muted call (solid red) Hold (blinking green)
Speakers/mics	Two side-firing speakers and two microphones
Microphone type	Omni-directional
Analog audio	Yes
Number of channels	Stereo (left and right channels)
Speaker rated power	2W

Service and Support

HP Dock Solutions are supported by a one-year limited warranty. Additional support is available 24 hours a day, seven days a week by phone as well as online support forums.

NOTE: Certain restrictions and exclusions apply. Consult the HP Customer Support Center for details.

Summary of Changes

Date of change	Version 1 to 2		Description of change
	V1 to V2	Launch	
July 6, 2018	V1 to V2	Update	Typo corrected on “LED colored ring” specs
October 5, 2018	V2 to V3	Update	1050 G1 added to HP Thunderbolt Dock 230W G2 (2UK38AA) and HP Thunderbolt Dock 230W G2 cable (3XB95AA) compatibility
May 7, 2019	V3 to V4	Update	HP USB-C Dock G5, HP USB-C/A Universal Dock G2 and HP 4.5 mm and USB-C Dock Adapter G2 added
June 25, 2019	V4 to V5	Update	General update
September, 2019	V5 to V6	Update	General Update
March 10, 2020	V6 to V7	Update	HP UltraSlim Docking Station – Rear side image call out #11 corrected
May 27, 2020	V7 to V8	Update	HP USB-C Dock G5 operating systems updated
July 29, 2020	V8 to V9	Update	Image call outs and call outs section corrected for Thunderbolt Dock G2 Typo in HP ZHANN Pro 13 G2 corrected ZBook Firefly 14/15 G7 added to Thunderbolt Dock 120W G2 HP ZHAN 99 Mobile Workstation added to HP ZHAN 99 G1, G2, added G7 to Studio, added ZBook Create G7, added ZBook Firefly 14/ 15 G7 into compatibility table.
October 16, 2020	V9 to V10	Update	General update
January 5, 2020	V10 to V11	Update	HP ZBook Firefly 14/15 G7, G8 from HP Thunderbolt™ Dock 230W G2 compatible notebooks
January 19, 2020	V11 to V12	Update	ZBook 15u G7 removed Reference footnote sign removed from Firefly 14/15 G7 and G8 HP 4.5mm and USB Dock Adapter and HP USB-C Universal Dock Non-Flash with USB & 4.5mm Adapter removed
March 2, 2021	V12 to V13	Update	Video Resolution table updated (p5 and p6)
April 26, 2021	V13 to V14	Removal	HP EliteBook 800/700 G7 and G8 from HP Thunderbolt™ Dock 230W G2 compatibility statement.
August 5, 2021	V14 to V15	Update	(discontinued) added to index / Introduction added / Footnote and NOTE added to item listed in the introduction / Footnote arrangement on HP TB 120W G2 w/Audio
April 16, 2022	V15 to V16	Update	HP USB-C Dock G5, HP USBC/A Universal Dock G2, HP Thunderbolt Dock G2 resolution tables corrected / HP UltraSlim Docking Station stated as discontinued.
April 21, 2022	V16 to V17	Update	Thunderbolt G4 removed
May 11, 2022	V17 to V18	Removal	Win 7 from OS for HP USB-C Dock 5
June 1, 2022	V18 to V19	Update	General arrangement.
November 15, 2022	V19 to V20	Update	HP USB-C Dock G4, HP USB-C Universal Dock w/4.5mm Adapter, HP USB-C Universal Dock, HP USB-C Mini Dock, HP USB Travel Dock, HP UltraSlim Docking Station removed / General arrangement.
January 9, 2023	V20 to V21	Update	Part numbers and USB ports version updated
March 1, 2023	V21 to v22	Update	Combo audio jack updated to 1x
April 17, 2023	V22 to V23	Update	Network Manageability Features and 1x Kensington Lock Slot added to HP USB-C Dock G5, HP USB-C/A Universal Dock G2 and HP Thunderbolt™ Dock G2 components tables.
May 12, 2023	V23 to V24	Update	External monitor support for HP USB-C/A Universal Dock G2 updated
November 7, 2023	V24 to V25	Update	“Operating Systems” to “Supported Operating Systems” and “Compatibility” to “Supported Platforms”.
February 12, 2024	V25 to V26	Update	General update
November 25, 2024	V26 to V27	Update	Footnote added to Power to system for HP USB-C G5 Dock

Summary of Changes

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