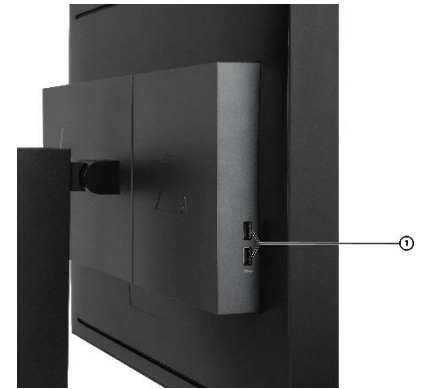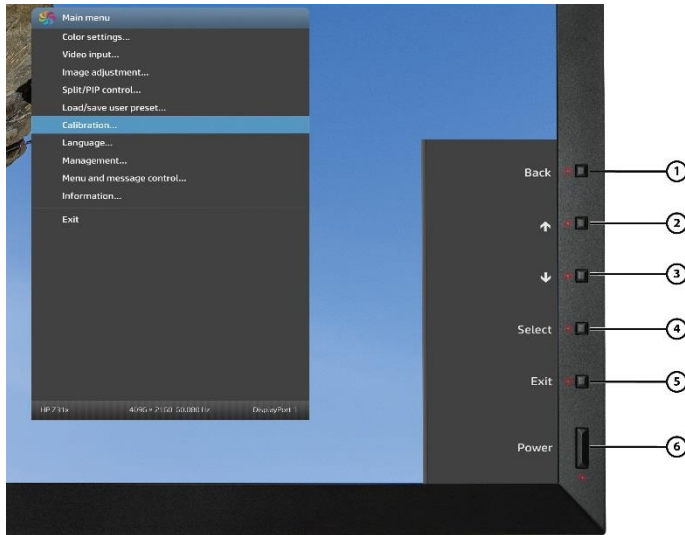# QuickSpecs

Technical Specifications

HP DreamColor Z31x Studio Display

1.   **Color preset**
2.   **Video input**
3.   **Luminance**
4.   **Display info**
5.   **Open menu**
6.   **Power**

QuickSpecs
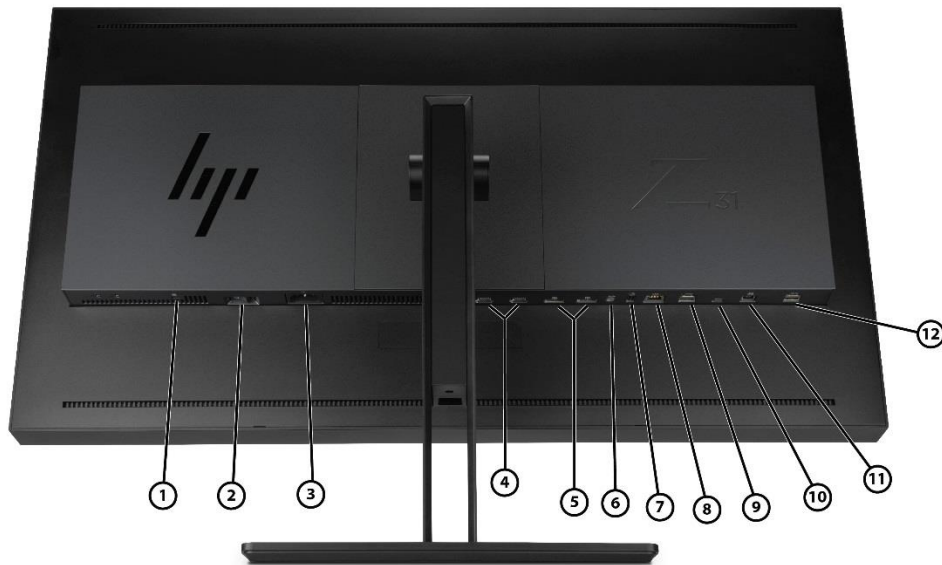
Technical Specifications

	Controls				**Side**
1. **Color preset**	2. **Video input**	3. **Luminance**		1.	**(2) USB 3.0**
4. **Display info**	5. **Open menu**	6. **Power**			

1. **Security Lock Slot**	7. **KVM Keyboard Connection (USB)**
2. **Power Switch**	8. **RJ-45 Network Connector**
3. **Power Cable Connector**	9. **(2) DreamColor Ports (USB)**
4. **(2) HDMI 2.0**	10. **USB Type-C™**
5. **(2) DisplayPort™ 1.2**	11. **USB 3.0 Type-B**
6. **Audio out (analog)**	12. **(2) USB 3.0 Type-A**

Technical Specifications

Models: 1JR59A4

Panel	**Type**	31.1-inch Real IPS, LED Backlit
	Viewable Image Area (diagonal)	**79 cm** (31.1 in) widescreen; diagonally measured
	Panel Active Area (W x H)	**69,8 x 36,8 cm** (27.48 x 14.49 in.)
	Panel Type	Real IPS
	Native Resolution/Timing	4096 × 2160 @ 60 Hz[1]
	Aspect Ratio	17:9
	Viewing Angle (typical)	Up to 178° horizontal/178° vertical (10:1 minimum contrast ratio)
	Brightness (typical)*	250 cd/m²**
	Static Contrast Ratio (typical)*	1,500:1
	Static Contrast Ratio (minimum)*	1,200:1
	Dynamic Contrast Ratio (typical)*	N/A
	Flicker Free	Yes
	Response Time (typical)*	10 ms with Overdrive enabled
	Pixel Pitch	(H) 0.1704 × (V) 0.1704
	Pixels Per Inch (PPI)	149
	Backlight Lamp Life (to half brightness)	30,000 hours minimum
	Panel Bit Depth	True 10-bit (Up to 1.07 Billion colors)
	Color Gamut	100% of sRGB, 100% of BT.709, 100% of AdobeRGB, 99% of DCI-P3, 80% of BT.2020

*All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

** HP applied uniformity compensation to each Z31x display, which brings the typical uniform peak luminance down to 250 cd/m² from a 350 cd/m² native peak brightness. Display supports luminance calibration up to 250 cd/m², reserving any luminance headroom for panel aging compensation.

User Controls	**On Screen Display (OSD) User Controls**	Color settings, Video input, Image scaling, Markers, Digital cinema region, PIP/Split, User preset, Calibration, Language, Management, Menu and message control, Information
	Monitor Control Buttons or Switches	Power, 5 OSD buttons
	User-Assignable Function Buttons	Yes, 4 (19 options)
	Languages	10 (English, Spanish, German, French, Italian, Netherlands, Portuguese, Japanese, T-Chinese and S-Chinese)
Color Management	**Factory Color Calibrated**	Yes
	Factory Color Presets	DCI P3 D65, BT.709, BT.2020, sRGB D65, sRGB D50, Adobe RGB D65, EPD, Native
	Color Space / Subsampling Support	RGB 4:4:4, YC_BC_R 4:4:4, YC_BC_R 4:2:2, YC_BC_R 4:2:0
	Default Color Temperature	D65
	Low Blue Light Modes	Yes
	RGB Channel Adjust	Yes, Setup and Gain, downstream from color preset
	User Calibration Support	Integrated

Technical Specifications

<table>
<tr><td rowspan="4"></td><td>**Integrated Calibration Instrument**</td><td>Yes</td></tr>
<tr><td>**External Calibration Instrument Support**</td><td>X-Rite i1Display Pro, X-Rite- i1 Pro, Klein K10-A, Photo Research PR-6xx/7xx, Colorimetry Research CR-100/CR-250, Konica Minolta CA-310</td></tr>
<tr><td>**Standalone/Schedulable Calibration**</td><td>Yes</td></tr>
<tr><td>**Scriptable Calibration**</td><td>Yes</td></tr>
</table>

<table>
<tr><td rowspan="5">**Signal Interface/ Performance**</td><td>**Horizontal Frequency**</td><td>30 – 135 kHz</td></tr>
<tr><td>**Vertical Frequency**</td><td>24-60 Hz</td></tr>
<tr><td>**Native Resolution**</td><td>4096 × 2160 @ 60 Hz[1]</td></tr>
<tr><td>**Preset VESA Graphic Modes** (non-interlaced)</td><td>640 × 480 @ 60 Hz
720 × 400 @ 70 Hz
800 × 600 @ 60.317 Hz
1024 × 768 @ 60.004 Hz
1280 × 720 @ 24 Hz
1280 × 720 @ 30 Hz
1280 × 720 @ 50 Hz
1280 × 720 @ 60 Hz
1280 × 1024 @ 60.020 Hz
1366 × 768 @ 60.000 Hz
1920 × 1080 @ 23.976 Hz
1920 × 1080 @ 24 Hz
1920 × 1080 @ 30 Hz
1920 × 1080 @ 50(i) Hz
1920 × 1080 @ 50 Hz
1920 × 1080 @ 59.94(i) Hz
1920 × 1080 @ 59.94 Hz
1920 × 1080 @ 60.000 Hz
1920 × 1200 @ 59.950 Hz
1920 × 1200 @ 59.995 Hz
2048 × 1080 @ 24.000 Hz
2048 × 1080 @ 48.000 Hz
2048 × 1080 @ 60.000 Hz
3840 × 2160 @ 24 Hz
3840 × 2160 @ 25 Hz
3840 × 2160 @ 30 Hz
3840 × 2160 @ 47.952 Hz
3840 × 2160 @ 48 Hz
3840 × 2160 @ 50 Hz
3840 × 2160 @ 60 Hz
4096 × 2160 @ 23.976 Hz
4096 × 2160 @ 24 Hz
4096 × 2160 @ 47.952 Hz
4096 × 2160 @ 48 Hz
4096 × 2160 @ 59.94 Hz
4096 × 2160 @ 60 Hz</td></tr>
</table>

Technical Specifications

2048 × 2160 @ 60 Hz

Maximum Pixel Clock Speed	600 MHz
Anti-Glare Panel	Yes
Default Color Temperature	D65 (6504K)

QuickSpecs

HP DreamColor Z31x Studio Display

Technical Specifications

VIDEO/OTHER INPUTS

Connector Types	**DisplayPort™**	(2) DisplayPort™ 1.2
	HDMI	(2) HDMI 2.0
	HDCP support	Yes, all video inputs
	Audio	(1) Audio out (analog)
	Network	(1) RJ-45 Network Connector
USB Port Specifications	**USB Version**	3.0
	USB Hub	Yes
	Downstream Ports	4, Type A
	Upstream Ports	1, Type B
	Fast Charging USB Ports	2 Ports (side)
	HP DreamColor USB Ports	2, USB 3.0
	KVM Keyboard Port	Yes
	Power Output Maximum	Fast Charging 12.5 W; Standard 4.75 W
USB-Type C™ Port Specifications	**USB-Type C™ Version**	USB 3.1 Gen1 / 5G bps
	USB-Type C™ Hub	No (USB-C™ can provide upstream to USB Type-A Hub)
	Downstream USB-Type C™ Ports	0
	Upstream USB-Type C™ Ports	1
	Video Support	USB-C Alt mode – DisplayPort™ 1.2
	Power Output	5V/5.25V/9V/10V/12V/15V/20V, 3A
	Power Output Maximum	60W Max
Cables Included	**Video Cables Included**	(1) HDMI **1,8 m** (5.9 ft),
		(1) DisplayPort™ **1,8 m** (5.9 ft)
	USB Cables Included	(1) USB Type-C™ **1,8 m** (5.9 ft)
		(1) USB Type-C™ to Type-A cable **1,8 m** (5.9 ft)
		(1) USB Type-B to Type-A cable **1,8 m** (5.9 ft)

POWER

Power	**Power Supply**	Internal
	Input Power	100 – 240 VAC 50/60 Hz
	Typical Power²	120 W
	Maximum Power³	260 W
	Energy Saving/Standby Mode	0.5 W
	Power Cable Length	**1,9 m** (6.2 ft)

DIMENSIONS AND WEIGHT

Mechanical	**Dimensions** (W x D x H)	**Unpacked w/stand** (highest setting)	**73,80 x 24,80 x 56,60 cm** (29.06 x 97.64 x 22.38 in)
		Unpacked w/o stand (head only)	**73,80 x 8,26 x 41,41 cm** (29.06 x 3.25 x 16.30 in)
		Packaged	**88,80 x 38,80 x 53,60 cm** (34.96 x 15.28 x 21.10 in)
	Weight	**Head Only**	**9,9 kg** (21.83 lb)
		Unpacked	**15 kg** (33 lb)
		Packaged	**18,5 kg** (40.7 lb)

QuickSpecs

Technical Specifications

MONITOR FEATURES

Plug and Play	Yes	
Color	Black	
Integrated Quick Release[9]	An easy-to-use, VESA-compliant, LCD monitor mounting solution that allows you to quickly and securely attach an LCD monitor to a variety of stands, brackets, arms or wall mounts.	
Cable Management	Enhanced cable management for easy concealment of power, video and USB cables. Effortless routing of cables through the cable management tunnel at the base of the column.	
Detachable Stand	Yes, ships detached	
Tilt Range	−5° to +20° vertical	
Swivel Range	−45° to +45°R	
Display height adjustment:	Adjustment Range: 144 mm Min (desk to bottom of display): 11 mm Max (desk to bottom of display): 155 mm	
Pivot Rotation	N/A	
VESA Mounting	Yes, 100 mm Integrated with mount	
Security Lock-Ready	Yes	

SPECIAL FEATURES

Picture-in-Picture, Picture-by-Picture	Yes
KVM Switch	Yes, Keyboard/OSD-control
Remote Manageability	Yes, Web Dashboard, Host API, WS-Management
User Presets	Yes
True 2K Image Scaling	Yes
Digital Cinema Region Masking	Yes, 1.85:1, 2.39:1
Marker Overlays	Yes, preset and programmable
Video legal limiting (64–960)	Yes, all inputs
Rename Video Inputs	Yes
User Updateable Firmware	Yes

EU ENERGY EFFICIENCY CLASS (ERP LOT5)

Energy Efficiency Class	G

ENVIRONMENTAL

Specifications

Temperature - Operating	**5° to 35° C** (41° to 95° F)
Temperature - Non-operating	**−20° to 60° C** (−4° to 140° F)
Humidity – Operating	20% to 80% Relative Humidity non-condensing
Humidity – Non-operating	5% to 95%, 38.7° C max wet-bulb
Altitude – Operating	**0 to 5,000 m** (0 to 16,404 ft)
Altitude – Non-operating	**0 to 12,192 m** (0 to 40,000 ft)

Technical Specifications

White LED Backlights	Yes
CCFL Panel	No
Arsenic-Free Display Glass	Yes
Low Halogen[4]	Yes (except cables, SOC board and colorimeter motor)
Mercury-Free Display Backlights	Yes

OPTIONS (EACH SOLD SEPARATELY)	**HP B500 PC Mounting Bracket — Part number 2DW52AA**	Maximize your available work area with a single-footprint solution. Simply attach the bracket to the back of your display, and your PC platform to the bracket via the 100mm VESA pattern. It's that easy!
	HP DisplayPort™ Cable Kit —Part number VN567AA	Connects a DisplayPort™ connector on an HP Business Desktop computer to a DisplayPort™ connector on a monitor
	HP Business PC Security Lock Kit— Part number PV606AA	Attaches to the rear of the PC with a six-foot steel cable that can be used to secure a PC or peripherals such as mice, keyboards, monitors or USB security devices to protect them against unauthorized removal by physically connecting the system to an anchor point.

WHAT'S IN THE BOX?

What's in the box?	**Monitor and Accessories**	HP DreamColor Z31x Studio Display, AC power cord, (1) HDMI 1,8 m (5.9 ft), (1) DisplayPort™ 1,8 m (5.9 ft) (1) USB Type-C™ 1,8 m (5.9 ft) (1) USB Type-C™ to Type-A cable 1,8 m (5.9 ft) (1) USB Type-B to Type-A cable 1,8 m (5.9 ft) Accessory bracket Rear cover for VESA mounting
	Documentation	CD (includes user guide, warranty, drivers, calibration report)
Other	**Software included**	N/A
	User Guide Languages	English, Arabic, S. Chinese, T. Chinese, Czech, Danish, Dutch, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Kazakh, Korean, Norwegian, Polish, Brazilian Portuguese, Russian, Slovenian, Spanish, Swedish and Turkish.
	Warranty Languages	English, Arabic, S. Chinese, T. Chinese, Czech, Danish, Dutch, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Kazakh, Korean, Norwegian, Polish, Brazilian Portuguese, Russian, Slovenian, Spanish, Swedish and Turkish.
	Country of Origin	China

CERTIFICATION AND COMPLIANCE

Certification and Compliance	Microsoft WHQL Certification (Windows 10), SmartWay Transport Partnership (NA only), CEL/EUP Lot-5/EUP Lot-6/CE/CB/TUV GS/TUV ERGO/ISO 9241-307/CSA/FCC/ICES/KC/KCC/E-STAND BY/Vietnam MEPS/S-MARK/VCCI/CCC/BSMI/CECP
Compatibility	Compatible with platforms using the VESA standard video modes. Recommended for use with HP products.
Service and Warranty	Protected by HP, including a 3 year standard limited warranty. Optional HP Care Pack Services are extended service contracts that extend your protection beyond the standard warranties.[5]
Zero Bright Dot Policy*	Yes

Technical Specifications

*The HP Pixel Policy allows no bright sub-pixel defects for this display. For complete details, see http://support.hp.com/us-en/document/c00288895.

Technical Specifications

DisplayPort™ and the DisplayPort™ logo are trademarks owned by the Video Electronics Standards Association (VESA®) in the United States and other countries.

1. The video card of the connected PC must be capable of supporting 4096 × 2160 at 60 Hz with 10-bit color using one DP, HDMI, or USB-C (DP alt mode).
2. Default Power is measured with factory defaults, including factory default brightness and USB ports loaded at 25% of maximum.
3. Maximum Power is measured with monitor at maximum brightness and with USB ports loaded at 100% of maximum.
4. External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
5. Service levels and response times for HP Care Pack Services may vary depending on your geographic location. Service starts from date of hardware purchase. Restrictions and limitations apply. See http://www.hp.com/go/cpc for details.

QuickSpecs

Technical Specifications

Change Log			
March 15, 2021	V1 to V2	Added	Energy Efficiency Class
	V2 to V3		