

# Crimson Specifications

Learn about the product specifications. Due to continuing research, specifications are subject to change without notice.

## Model name

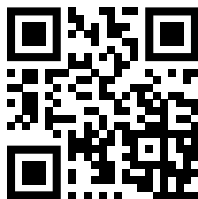
- Crimson HD25
- Crimson WU25
- Crimson HD31
- Crimson WU31
- Mirage HD25
- Mirage WU25

## Product documentation

For installation, setup, and user information, see the product documentation available on the Christie Digital Systems USA Inc. website. Read all instructions before using or servicing this product.

### Crimson HD25, Crimson WU25, Crimson HD31, Crimson WU31

1. Access the documentation from the Christie website:
  - Go to this URL:[bit.ly/2nOplCa](https://bit.ly/2nOplCa).
  - Scan the QR code using a QR code reader app on a smartphone or tablet.



2. On the product page, select the model and switch to the **Downloads** tab.

### Mirage HD25, Mirage WU25

1. Access the documentation from the Christie website:
  - Go to this URL:[bit.ly/2C6H4HZ](https://bit.ly/2C6H4HZ).
  - Scan the QR code using a QR code reader app on a smartphone or tablet.



2. On the product page, select the model and switch to the **Downloads** tab.

## Related documentation

Additional information on the projector is available in the following documents.

- *Crimson and Mirage Installation and Setup Guide (P/N: 020-102647-XX)*
- *Crimson and Mirage User Guide (P/N: 020-102649-XX)*
- *Crimson and Mirage Product Safety Guide (P/N: 020-102648-XX)*
- *Crimson and Mirage Service Guide (P/N: 020-102733-XX)*
- *Crimson and Mirage Serial Commands Guide (P/N: 020-102660-XX)*
- *Crimson and Mirage Status System Guide (P/N: 020-102661-XX)*

## Display

Learn about the display specifications.

Description	
<b>Panel resolution and refresh rate</b>	
Pixel format (H x V square pixels)	1920 x 1080 (HD) 1920 x 1200 (WUXGA)
Processing path	Pixel rate: Maximum 330M pixel/second Crimson HD25/31 and WU25/31: 60 Hz display rate Mirage HD25 and WU25: 120 Hz display rate Up to 12-bit per color
<b>Achievable contrast ratio</b>	450:1 ANSI, up to 2000:1
<b>Color and grayscale resolution</b>	
Displayable colors	35.2 trillion
Grayscale resolution	45 bits total linear, 25 bits per pixel
<b>Nominal white point</b>	x = 0.300 +/- 0.010 y = 0.330 +/- 0.010
<b>Nominal gamma</b>	2.2

## Control signal compatibility

Ethernet port	
Interface	
Connector	Female RJ-45

3D sync	
Connector	BNC Male
Interface	TTL inputs and outputs

RS232 in	
Connector	9-pin subminiature D, female
Bit rate	115,200 bps
Data format	1 start bit, 8 data bits, 1 stop bit, no parity

GPIO	
Connector	DE-9 Male
Interface	CDS GPIO/3D Trigger Support - 7bit configurable

Wired remote	
Connector	3-pin XLR female
Interface	Custom

## Optional input cards

Learn about the input cards that may be used with the projector.

Input card	Part number
<b>Core3 option cards</b>	
Dual 3G SD/HD-SDI (3GIC)	108-313101-02
Dual Link DVI (DDIC)	108-312101-XX
Twin DisplayPort (TDPIC)	108-451101-XX
Twin HDMI (THIC)	108-311101-XX
<b>Core4 option cards</b>	
High Bandwidth Multi-Input Card (HBMIC)	144-116109-XX
Quad Display Port Input Card (QDPIC)	144-114107-XX
Terra SDVoE Input Card (TSIC)	144-132107-XX



The -01 version of the Dual 3G SD/HD-SDI card is not supported.

## Temperature sensor thresholds

The projector shuts down within one minute of an error threshold being reached.

Location	Crimson and Mirage HD/WU 25		Crimson HD/WU 31	
	Warning °C	Error °C	Warning °C	Error °C
Air intake temperature	40	45	40	—
Main control board temperature	82	95	82	95
Image processor scaler temperature	82	95	82	95
Image processor warp temperature	82	95	82	95
Formatter-red temperature	82	95	90	95
DMD waterblock temperature	56	60	TBD	TBD
Formatter-green temperature	82	95	90	95
Formatter-blue temperature	82	95	90	95
Option card 1 temperature	82	95	82	95
Option card 2 temperature	82	95	82	95
Housekeeping board temperature	82	95	82	95
Main control board FPGA temperature	85	NA	85	NA
Power supply temperature	60	NA	60	NA
Color sensor board temperature	80	85	80	85
Diode temperature (red 1)	52	55	52	55
Diode temperature (red 2)	52	55	52	55
Diode temperature (red 3)	52	55	52	55
Diode temperature (red 4)	52	55	52	55
Diode temperature (green A)	73	78	75	78
Diode temperature (green B)	73	78	75	78
Diode temperature (green C)	73	78	75	78
Diode temperature (blue)	73	78	75	78
TEC temperature	52	55	52	55
Phosphor wheel temperature	90	95	92	95

## Warning thresholds for fans

Learn the warning thresholds (in RPMs) for each fan. All fan warnings are set to ~75% of their normal operating speeds.

Fan	Crimson and Mirage HD/WU 25		Crimson HD/WU 31	
	RPM warning	RPM error	RPM warning	RPM error
Intake A	3420	800	3420	800
Intake B	3420	800	3420	800
Intake C	3420	800	3420	800
Intake D	3420	800	3420	800
Radiator A	720	720	1200	720
Radiator B	720	720	1200	720
Radiator C	720	720	1200	720
Radiator D	720	720	1200	720
Radiator E	720	720	1200	720
Radiator F	720	720	1200	720
Light engine exhaust A	1590	0	2250	0
Light engine exhaust B	1590	0	2250	0
Phosphor wheel heat sink	1650	0	1650	0
Exhaust A	1620	0	2000	0
Exhaust B	1620	0	2000	0
Exhaust C	1620	0	2000	0
Exhaust D	—	—	2000	0
Exhaust E	—	—	2000	0
Light engine exhaust blower	1140	0	1580	0
Card cage intake	1650	0	2250	0
Card cage exhaust	1650	0	2250	0
Combiner fan (P308)	2730	2730	2730	2730
Combiner fan (P309)	4410	4410	4410	4410
Liquid cooling pump	N/A	N/A	N/A	N/A
Liquid cooling pump (laser)	2800	2800	2800	2800

## Power requirements

Learn the power requirements for Crimson.

Parameter	Requirement
<b>Rated voltage</b>	
Input 1	200 - 240 VAC
Input 2	100 - 240 VAC
<b>Rated current</b>	
Input 1	16 A maximum
Input 2	10 A maximum
Line frequency	50/60 Hz
<b>AC input coupler</b>	
Input 1	IEC 320 - C20
Input 2	IEC 320 - C14

## Physical specifications

Learn the dimensions and weight of the projector.

Description	Dimensions
<b>Projector size</b>	
Overall size, case only (L x W x H) (excluding lens, stack, and feet)	957 x 635 x 302 mm 37.7 x 25 x 11.9 inches
Overall size (L x W x H) (includes skid)	1276 x 883 x 676 mm 50.25 x 34.75 x 26.63 inches
<b>Projector weight</b>	
Without lens	79.5 kg (175.5 lbs)
Shipping without lens (includes packaging)	102.5 kg (226 lbs)
<b>Operating position</b>	Omni-directional

## Accessories

Learn about the accessories (sold separately) available for the projector.

### Lenses

Projection lens	Part number
0.37:1 HD ILS	118-131106-XX

Projection lens	Part number
0.67:1 HD ILS	118-100110-XX
0.8-1.16 HD ILS	118-130105-XX
1.1:1 HD ILS	118-100117-XX
1.16-1.49:1 HD ILS	118-100111-XX
1.4-1.8:1 HD ILS	118-100112-XX
1.8-2.6:1 HD ILS	118-100113-XX
2.6-4.1:1 HD ILS	118-100114-XX
4.1-6.9:1 HD ILS	118-100115-XX
6.9-10.4:1 HD ILS	118-100116-XX

**Other accessories**

Description	Part number
IR remote	003-120918-XX
Christie Mystique Install	900-100285-XX 900-100286-XX 900-100274-XX 900-100275-XX
Christie Twist Premium	156-002103-XX 156-102104-XX
Christie Twist Pro	156-001102-XX 156-101103-XX
Christie Guardian	156-134109-XX 156-135100-XX
Rigging frame	165-101103-XX
Rigging handles	165-103105-XX

## Environment

Learn about the environment requirements for projector while operating and not operating.

Condition	Specification
<b>Operating environment</b>	
Ambient temperature	Crimson and Mirage HD25/WU25: 5 to 40°C (41 to 104°F) up to 457.2 m (1500 ft) Crimson HD31/WU 31: 5 to 40°C (41 to 104°F) up to 304.8 m (1000 ft)
Ambient humidity (non-condensing)	10 to 80% relative humidity

Condition	Specification
Altitude	3000 meters (9843 feet) maximum at 5 to 25°C (41 to 77°F) ambient
<b>Non-operating environment</b>	
Ambient temperature	-30 to 70°C (-22 to 158°F)
Ambient humidity	10 to 90% RH

## Regulatory

This product conforms to the latest regulations and standards related to product safety, environmental, and electromagnetic compatibility (EMC) requirements.

## Safety

- ANSI/UL 60950-1 – Information Technology Equipment – Safety – Part 1: General Requirements
- CAN/CSA C22.2 No. 60950-1-07 – Information Technology Equipment – Safety – Part 1: General Requirements
- IEC/EN 60825-1 – Safety of Laser Products – Part 1: Equipment Classification and Requirements
- IEC 60950-1 IEC/EN 60950-1 – Information Technology Equipment – Safety – Part 1: General Requirements
- IEC/EN 62471-5 – Photobiological Safety of Lamps and Lamp Systems – Part 5: Image projectors

## Electro-magnetic compatibility

### Emissions

- CAN ICES-003 (A)/NMB-003 (A) – Information Technology Equipment (Including Digital Apparatus) – Limits and Methods of Measurement
- CISPR 32/EN 55032, Class A – Electromagnetic Compatibility of Multimedia Equipment – Emission Requirements
- FCC CFR47, Part 15, Subpart B, Class A – Unintentional Radiators
- IEC 61000-3-2/EN61000-3-2: Limits for Harmonic Current Emissions
- IEC 61000-3-3/EN61000-3-3: Limitations of Voltage Changes, Voltage Fluctuations, and Flicker

### Immunity

- CISPR 24/EN55024 EMC Requirements – Information Technology Equipment – Immunity Characteristics – Limits and Methods of Measurements
- CISPR 35/EN55035 Electromagnetic Compatibility of Multimedia Equipment - Immunity Requirements



## Environmental

- China Ministry of Information Industry (along with 7 other Government Agencies) Order No.32 (01/2016) on the control of pollution caused by electronic information products, hazardous substances concentration limits (GB/T 26572 - 2011), and the applicable product marking requirement (SJ/T 11364 - 2014).
- EU Directive (2011/65/EU) on the restriction of the uses of certain hazardous substances (RoHS) in electrical and electronic equipment and the applicable official amendment(s).
- EU Directive (2012/19/EU) on waste and electrical and electronic equipment (WEEE) and the applicable official amendment(s).
- Regulation (EC) No. 1907/2006 on the registration, evaluation, authorization and restriction of chemicals (REACH) and the applicable official amendment(s).