

Christie high frame rate

High frame rate (HFR) content plays at higher speeds so viewers see fewer motion artifacts, as well as less motion blur and stuttered movement on-screen.

Increasing the frame rate not only provides more frames to better represent fast moving objects, it also provides increased image detail as there is less dark time in between frames.

Affected products

The following products support Christie high frame rate.

- D4K40-RGB
- Mirage 304K

Required components

The following components are required.

- HFR license

Additional components

- Christie Twist 2.5

Video sources

Three video sources and Christie Link are supported for Christie high frame rate.



- All sources must be frame synchronous.
- 1920 x 1080 (FHD) image formats are supported.
- 1/1.001 fractional frame rates are supported.

D4K40-RGB, Mirage 304K

System	Layout	Port	Signal
QDPIC	1-port	[0-1] [0-2] [0-3] [0-4]	2048 * 1080 @ 240Hz
	2-port	[0-1][0-2]	1024 * 1080 @ 240Hz

System	Layout	Port	Signal
		[0-3][0-4]	1024 * 1080 @ 360Hz 1024 * 1080 @ 480Hz
	4-port	[0-1][0-2][0-3][0-4]	1024 * 540 @ 480Hz
HBMIC	1-port	[0-4]	2048 * 1080 @ 240Hz
	(QSFP+)	See the Christie Link section below	
TDPIC	2-port	[1-1][2-1] [3-1][4-1] [1-2][2-2] [3-2][4-2]	1024 * 1080 @ 240Hz
	4-port	[1-1][2-1][3-1][4-1] [1-2][2-2][3-2][4-2]	1024 * 540 @ 240Hz 1024 * 540 @ 360Hz 1024 * 540 @ 480Hz
Christie Link	1-port	[0-1] [0-2]	2048 * 1080 @ 240Hz
	2-port	[0-1][0-2]	1024 * 1080 @ 240Hz 1024 * 1080 @ 360Hz 1024 * 1080 @ 480Hz

Adding the HFR software license to the projector

Add the HFR software license to the projector using Christie Twist 2.5 or higher.

The HFR license must be installed on the projector for Christie high frame rate to function.



Enabling Christie high frame rate changes the output resolution of the projector to 2K.

1. Record the serial number of the projector(s) and send it to Christie Technical Support requesting the Christie high frame rate license.

The serial number is available on the projector label, from the **Status > Configuration** menu, or you can send the (SST+CONF?1) serial API command.

Christie Technical Support will send zipped license file(s) to you. If you sent more than one serial number, you will receive multiple license files as the .key file is based on the serial number of the projector.

2. Unzip the license files to a known location on your computer.
3. Make sure the projector you want to apply the licenses to is running and is on the same subnet as your computer.
4. From the Start menu, select **Christie > Twist 2.x > Projector License Utility**.
5. In the Christie Projector License Utility dialog, click **Browse**.
6. Navigate to the location of the unzipped license files (.key) and select the HFR license.
7. From the Projectors list, select the projector you want to apply the upgrade to.
8. Click **Apply**.

9. To apply the Christie high frame rate license, repeat steps 4 to 8.
10. Reboot the projector.
11. To verify the licenses were installed, select **Menu > Admin > Licenses > View**.
12. Repeat steps 3 to 11 for each additional projector.

Enabling or disabling the high frame rate (HFR)

If the high frame rate (HFR) mode is enabled, the projector can only operate in 2K output resolution. To use 4K resolution, disable this mode.



This option is only available when the HFR license is installed and the projector is in standby mode.

1. Select **MENU > Configuration > Input Settings > High Frame Rate**.
2. To change to 2K resolution for HFR, select **Enable**.
3. At the confirmation prompt, select **Enable**.
The projector reboots and the High Frame Rate button changes to Disable.
4. To change to 4K resolution, select **MENU > Configuration > Input Settings > High Frame Rate > Disable**.
The projector reboots and the High Frame Rate button changes to Enable.

Issuing the (OTR <0 | 1>) serial command also toggles between the 4K and 2K resolutions.

Selecting the high frame rate EDID

Configure the projector and/or Christie Link for the 3D source.

1. From the projector:
 - a) Select **MENU > Configuration > Input Settings > EDID Timing**.
 - b) Select one of the following EDID timings: 240Hz, 360Hz, or 480Hz.
 - c) Select **Enter**.
2. From Christie Link:
 - a) Select **MENU > Configuration > INPUT PORTS > EDID Timing**.
 - b) Select one of the following EDID timings: 240Hz, 360Hz, or 480Hz.
 - c) Select **Enter**.

Technical support

Technical support for Christie Enterprise products is available at:

- North and South America: +1-800-221-8025 or Support.Americas@christiedigital.com
- Europe, Middle East, and Africa: +44 (0) 1189 778111 or Support.EMEA@christiedigital.com
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