Panasonic CONNECT

PT-FRQ60 Series

1-Chip DLP™ Projectors

Compact 1-Chip DLP™ Projectors Deliver Smooth, Detailed Images for an Insightful Visual Experience

■ Main Features

01 | Smooth and Detailed 4K Image Quality

Quad Pixel Drive, Panasonic's original 2-axis pixel-quadrupling technology, creates crisp, sharp, and smooth 4K images. Frame rates up to 240 Hz/1080p are supported with 8 ms latency or less[1]. Rich Color Enhancer produces deep, accurate color for artwork. Together, these technologies deliver insightful visual experiences in museums and STEM classrooms.

02 | Flexible, Simple to Use, and Easy to Integrate

Wide-range V/H Lens-Shift and 2.0x zoom enhance installation flexibility while two CEC-compatible HDMI® inputs and DIGITAL LINK simplify operation and integrate the projector into 4K system infrastructure. Free Grid and Remote Preview Lite[2] secure effortless installation.

03 | Highly Reliable Low-Maintenance Projection

Heat-pipe cooling system enables implementation of full hermetic sealing for the airtight optical block, eliminating need of a filter for 20,000 hours[3] of maintenance-free projection. Multi Monitoring & Control Software with optional Early Warning[4] functions enhances reliability and prevents unexpected downtime by sending an alert before problems occur.

Black Models

White Models

PT-FRQ60 Series 1-Chip DLP™ Projectors

	PT-FRQ60	PT-FRQ50
Light Output	6,000 lm[5] / 6,200 lm (Center)[6]	5,200 lm[5] / 5,400 lm (Center)[6]
Resolution	4K (3840 x 2160 pixels[7]), 16:9	

1 Display frame rate corresponds to the input signal frame rate. Geometric adjustment features must be disabled. 2 Requires Multi Monitoring & Control Software Version 3.2 or later. 3 Around this time, light output will have decreased to approximately 50 % of its original level ([PICTURE MODE]: [DYNAMIC], [DYNAMIC CONTRAST] set to [2], temperature 30 °C [86 °F], elevation 700 m [2,297 ft] with 0.15 mg/m³ of particulate matter). 4 Early Warning functions are bundled with free Multi Monitoring & Control Software (license required after 90-day trial period). 5 Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 international standards. Value is average of all products when shipped. When [PICTURE MODE] is set to [DYNAMIC] and [LIGHT POWER] is set to [NORMAL]. 6 Average light-output value of all shipped products measured at center of screen in NORMAL Mode. 7 With Quad Pixel Drive.

Filmlike 4K with Vivid Color

Quad Pixel Drive provides smooth, gridless 4K resolution for precise reproduction of digital artwork, CAD drawings, architectural designs, and other detailed images. Rich Color Enhancer features a Standard/Graphic Mode that optimizes red-channel output for deep and natural color expression, and Dynamic Mode to balance brightness and color for clearest visibility in well-lit environments.

Smooth Playback of 240 Hz Content

PT-FRQ60 Series supports frame rates up to 240 Hz/1080p with input-to-output latency of 8 ms or less[1] for applications where smooth motion is important. The projector also works with ET-SWR10[2], a ready-to-use tracking projection-mapping SDK that enables image projection onto fast-moving objects at up to 240 fps to add lifelike interactivity to your museum exhibit.

Flexible and Adaptable to Your Application

Flexible 2.0x optical zoom, V/H Lens-Shift, and Geometric Adjustment with Free Grid give freedom to correct image position and distortion without a PC. Two HDMI® inputs support 4K video signals[3] and CEC commands from compatible devices, allowing the projector to turn ON/OFF with the source device.

Reliable, Cost-Effective Operation

Filterless heat-pipe cooling system draws heat from the hermetically sealed optical block, enabling 20,000 hours[4] of maintenance-free projection and reducing operating noise to a comfortable 28 dB[5]. Remote Preview Lite[6] enables input-video checks on a remote PC before projection. These technologies deliver unbeatable peace of mind in mission-critical situations.

■ Other Features

- Supports IPv6[7]
- Supports 21:9 (2560 x 1080, 3440 x 1440) signal input[8]
- Supports Crestron Connected™ V2, Crestron XiO Cloud™[8], Extron XTP®, Art-Net DMX, AMX® DD, and PJLink™
- Multi-Screen Support System with Multi-Unit Brightness & Color Control
- DICOM Simulation Mode
- Quick On/Quick Off
- Free 360° installation and 24/7 operation

1 Display frame rate corresponds to the input signal frame rate. Geometric adjustment features must be disabled. 2 ET-SWR10 is a Software Development Kit used in conjunction with third-party devices (sold separately). Compatibility with third-party devices cannot be guaranteed. Other limitations apply. Visit https://panasonic.net/cns/projector/products/swr10/ for more information. 3 4K/60p input signals are converted to the projector's resolution. Supports YPBPR 4:2:0 format only. 4 Around this time, light output will have decreased to approximately 50 % of its original level ([PICTURE MODE]: [DYNAMIC], [DYNAMIC CONTRAST] set to [2], temperature 30 °C [86 °F], elevation 700 m [2,297 ft] with 0.15 mg/m³ of particulate matter). 5 For PT-FRQ50 in QUIET Mode (35 dB in NORMAL/ECO Mode). Operating noise for PT-FRQ60 is 31 dB (QUIET Mode) and 36 dB (NORMAL/ECO Mode). Brightness is reduced when operating the projectors in ECO Mode. 6 Requires Multi Monitoring & Control Software Version 3.2 or later. 7 Main firmware version must be 3.00 or higher. Optional AJ-WM50 Series Wireless Module is not compatible with IPv6. 8 Main firmware version must be 3.00 or higher.

Specifications

Model		PT-FRQ60	PT-FRQ50
Projector type		1-Chip DLP™ projector	
DLP™ chip	Panel size	16.5 mm (0.65 in) diagonal (16:9 aspect ratio)	
	Display method	DLP™ chip x 1, DLP™ projection system	
	Number of pixels[1]	1920 x 1080 pixels (If a signal other than 120 Hz/240 Hz is input, it cannot be displayed at this resolution.)	
Light source		Laser diodes	
Light output[2, 3]		6,000 lm / 6,200 lm (Center)[4]	5,200 lm / 5,400 lm (Center)[4]
Time until light output declines to 50 %[5]		20,000 hours (NORMAL/QUIET)/24,000 hours (ECO)	
Resolution		4K (3840 x 2160 pixels) (With Quad Pixel Drive)	
Contrast ratio[2]		20,000:1 (Full On/Full Off) (When [PICTURE MODE] is set to [DYNAMIC] and [DYNAMIC CONTRAST] is set to [1]. HDMI signal input)	
Screen size (diagonal)		1.02–7.62 m (40–300 in), 16:9 aspect ratio	
Center-to-corner zone ratio[2]		90 %	
Lens		2.0x manual zoom (throw ratio: 1.46–2.93:1), manual focus, F 2.0–3.4, f 21.5–43.0 mm	
Lens shift (From the origin point of the lens mounter)	Vertical	+71 %, -48 % (manual)	
	Horizontal	+34 %, -27 % (manual)	
Keystone correction range		Vertical: ±40 °, Horizontal: ±20 °	
Terminals	HDMI IN 1/2	HDMI 19-pin x 2 (Compatible with HDCP 2.3, Deep Color, 4K/60p signal input[6]), CEC supported	
	COMPUTER IN	D-sub HD 15-pin (female) x 1 (RGB/YPBPR/YCBCR)	
	MONITOR OUT	D-sub HD 15-pin (female) x 1 (RGB/YPBPR/YCBCR)	
	AUDIO IN/OUT	M3 stereo mini-jack x 2	
	SERIAL IN	D-sub 9-pin (female) x 1 for external control (RS-232C compliant)	
	DIGITAL LINK/LAN	RJ-45 x 1 for network and DIGITAL LINK connection (video/network/serial control) (HDBaseT™ compliant), 100Base-TX (Compatible with PJLink™ [Class 2], Art-Net, HDCP 2.3, Deep Color, 4K/60p signal nput[7], Extron XTP®)	
	LAN	RJ-45 x 1 for network connection, 10Base-T, 100Base-TX (Compatible with PJLink™ [Class 2], Art-Net)	
	USB	USB connector (Type A) x 1 for optional AJ-WM50 Series Wireless Module, for USB memory, and for power supply (DC 5 V, maximum 2 A)	
Supported Internet Protocol Versions		IPv4, IPv6[8]	
Power supply		AC 100–240 V, 50/60 Hz; AC 110 V, 60 Hz (Taiwan)	
Power consumption		505 W (5.5–2.4 A) (525 VA)	480 W (5.0–2.2 A) (500 VA)
Operation noise[2]		36 dB (NORMAL/ECO) / 31 dB (QUIET)	35 dB (NORMAL/ECO) / 28 dB (QUIET)
Dimensions (W x H x D)[9]		498 x 168 x 492 mm (19 5/8″ x 6 5/8″ x 19 3/8″)	
Weight[10]		Approx. 16.4 kg (36.2 lbs)	Approx. 16.1 kg (35.5 lbs)
Operating environment		Operating temperature: 0–45 °C (32–113 °F[11]), operating humidity: 10–80 % (no condensation)	
Applicable software		Logo Transfer Software, Multi Monitoring & Control Software, Early Warning Software, Projector Network Setup Software	
Control Function via LAN		Crestron Connected™ V2, Crestron XiO Cloud™[12], Art-Net DMX, AMX® DD, and PJLink™ (Class 2)	

1 If a signal other than 120 Hz/240 Hz is input, it cannot be displayed at this resolution. 2 Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 international standards. Value is average of all products when shipped. 3 When [PICTURE MODE] is set to [DYNAMIC] and [LIGHT POWER] is set to [NORMAL]. 4 Average light-output value of all shipped products measured at center of screen in NORMAL Mode. 5 Around this time, light output will have decreased to approximately 50 % of its original level ([PICTURE MODE]: [DYNAMIC], [DYNAMIC CONTRAST] set to [2], temperature 30 °C [86 °F], elevation 700 m [2,297 ft] with 0.15 mg/m³ of particulate matter). Estimated time until light output declines to 50 % varies depending on environment. 6 4K/60p signals are converted to the projector's resolution upon projection. 7 4K/60p signals are converted to projector's resolution. Supports YPBPR 4:2:0 format only. 8 Main firmware version must be 3.00 or higher. Optional AJ-WM50 Series Wireless Module is not compatible with IPv6. 9 With legs fully retracted. 10 Average value. May differ depending on the actual unit. 11 When using the projector at an altitude lower than 2,700 m (8,858 ft) above sea level, and the operating environment temperature becomes 35 °C (95 °F) or higher, the light output may be reduced to protect the projector. When optional AJ-WM50 Series Wireless Module is attached, operating temperature range becomes 0–40 °C (32–104 °F). 12 Main firmware version must be 3.00 or higher.

Optional Accessories

- **Ceiling Mount Bracket**
  ET-PKD120H (for high ceilings)
  ET-PKD120S (for low ceilings)
  Note: PKD120H/PKD120S used in combination with ET-PKD130B (sold separately).
- **Attachment for Ceiling Mount Bracket**
  ET-PKD130B
- **DIGITAL LINK Switcher / Digital Interface Box**
  ET-YFB200G / ET-YFB100G
  Note: Not compatible with 4K signals.
- **Early Warning Software**
  ET-SWA100 Series
  Note: Part number suffix may differ depending on the license type.
- **Real-Time Tracking Projection Mapping System**
  ET-SWR10
  Note: Conditions apply. Availability may vary by country or region. Visit https://panasonic.net/cns/projector/products/swr10/ for more information.
- **Wireless Module**
  AJ-WM50 Series
  Note: Product availability may vary by country or region. Operating Temperature: 0–40 °C (32–104 °F).
- **Wireless Presentation System PressIT**
  TY-WPS1 (basic set)
  Visit https://panasonic.net/cns/prodisplays/pressit/ for more information.

Panasonic CONNECT

For more information about Panasonic projectors, please visit:
Projector Global Website – **https://panasonic.net/cns/projector/**
Facebook – **www.facebook.com/panasonicprojectoranddisplay**
YouTube – **www.youtube.com/user/PanasonicProjector**

*Note: Following the shift of the Panasonic Group to a holding company system, the Connected Solutions Company of the Panasonic Corporation has changed to **Panasonic Connect Co., Ltd.** as of April 1, 2022.*

All information included here is valid as of August 2022.

PT-FRQ60series_G4 Printed in Japan.