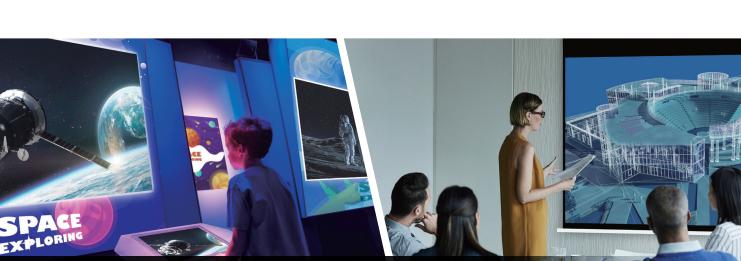
JUST PROJECTORS

-Chip DLP<sup>™</sup> Proiectors

PT-FRQ60 Series

# Panasonic CONNECT



Compact 1-Chip DLP<sup>™</sup> 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<sup>1</sup>. 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<sup>2</sup> 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<sup>3</sup> of maintenance-free projection. Multi Monitoring & Control Software with optional Early Warning<sup>4</sup> functions enhances reliability and prevents unexpected downtime by sending an alert before problems occur.





### PT-FRQ60 Series 1-Chip DLP<sup>™</sup> Projectors

		PT-FRQ60	PT-FRQ50
	Light Output	6,000 lm <sup>5</sup> / 6,200 lm (Center) <sup>6</sup>	5,200 lm <sup>5</sup> / 5,400 lm (Center) <sup>6</sup>
	Resolution	4K (3840 x 2160 pixels <sup>7</sup> ), 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, DNTRAST] set to [2], temperature 30 °C [86 °F], elevation 700 m [2,297 ft] with 0.15 mg/m<sup>3</sup> of particulate matter). 4 Early Warning functions are bundled with free Multi Monitoring & Control Software (Version 3.2 or later 90-day trial period). 5 Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 International address. 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<sup>1</sup> for applications where smooth motion is important. The projector also works with ET-SWR10<sup>2</sup>, 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<sup>3</sup> 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 hours4 of maintenance-free projection and reducing operating noise to a comfortable 28 dB5. Remote Preview Lite6 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<sup>7</sup>

- Supports 21:9 (2560 x 1080, 3440 x 1440) signal input8
- Supports Crestron Connected<sup>™</sup> V2, Crestron XiO Cloud<sup>™8</sup>, Extron XTP<sup>®</sup> 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 (and the 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 (IPCTURE MODE): [DYNAMIC, [DYNAMIC CONTRAST] set to [2], temperature 30 °C [86 °F], elevation 700 m [2,297 f] with 0.15 mg/m<sup>3</sup> of particulate matter). 5 For PF-RPG0 in QUET Mode (35 dB in NORMA/ECC MOME) mode (35 dB in NORMA/ECC MOME). Software Version 3 d dB (NORMA/ECC MOME). Bightness 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 AI-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 <sup>™</sup> 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 <sup>1</sup>	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 <sup>2, 3</sup>		6,000 lm / 6,200 lm (Center) <sup>4</sup>	5,200 lm / 5,400 lm (Center) <sup>4</sup>	
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 <sup>2</sup>		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 <sup>2</sup>		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	Vertical	+71 %, -48 % (manual)		
From the origin poir of the lens mounter)	Horizontal	+34 %, -27 % (manual)		
Keystone correction range		Vertical: ±40 °, Horizontal: ±20 °		
<b>Ferminals</b>	HDMI IN 1/2	HDMI 19-pin x 2 (Compatible with HDCP 2.3, Deep Color, 4K/60p signal input <sup>®</sup> ), 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 <sup>**</sup> compliant), 100Base-TX (Compatible with PJLink <sup>**</sup> [Class 2], Art-Net, HDCP 2.3, Deep Color, 4K/60p signal nput <sup>7</sup> , Extron XTP <sup>*</sup> )		
	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 Intern	et Protocol Versions	IPv4, IPv6 <sup>a</sup>		
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 <sup>2</sup>		36 dB (NORMAL/ECO) / 31 dB (QUIET)	35 dB (NORMAL/ECO) / 28 dB (QUIET)	
Dimensions (W x	H x D) <sup>9</sup>	498 x 168 x 492 mm (19 5/8" x 6 5/8" x 19 3/8")		
Weight <sup>10</sup>		Approx. 16.4 kg (36.2 lbs)	Approx. 16.1 kg (35.5 lbs)	
Operating environment		Operating temperature: 0-45 °C (32-113 °F <sup>11</sup> ), 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 <sup>™</sup> V2, Crestron XiO Cloud <sup>™12</sup> , Art-Net DMX, AMX <sup>®</sup> DD, and F	PJLink™ (Class 2)	

(1) f a signal other than 120 Hz/240 Hz is input, it cannot be displayed at this resolution. 2 Measurement, measurine conditions, and method of notation all comply with ISO/IEC 21118; 2020 international standards. Value is average of all products when 1 of a Signal Other (har) 120 H2/40 H2/540 HZ Singuit, Calinois be displayed at this resolution. 2 Measurement, measuring controllins, and metrico of notation an compty with ISOFE 211 H2 2020 international standards. Value 6 ad shiped. 3 With Respect to the Product's winer is developed at product's winer is developed at product's winer is developed at the resolution. 2 Measurement, measuring controllins, and metrico of notation an compty with ISOFE 211 H2. 2020 international standards. Value 6 ad shiped. 3 With Respect products are strengt at center of screen in NORMAL MODE) is set to (DYNAMIC) (DYNAMIC) (DYNAMIC) as to (2), temperature 30 °C (86 °F), elevation 700 m (2,297 ft) with 0.15 mg/m<sup>2</sup> of particulate matter). Estimated time unit light output declines to 50 % varies depending on environment. 6 4K760p signals are converted to projector's resolution. Supports YPPR 4.2-0 Ormat only. 8 Main firmware version must be 3.00 or higher. Optional AI-WMSO 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 te educed to protect the projector. 3 °C (40 °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

Panasonic CONNECT

trademark owners. © Panasonic Connect Co., Ltd. 2022, All rights reserved.

Weights and dimensions shown are approximate. Specifications and appearance are subject to change without notice. Availability of products and accessories may vary by country or region. Products may be subject to export control regulations. DLP, DLP logo, and DLP Medallion logo are trademarks or registered trademarks of Texas Instruments. The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc. in the United States and other countries. Trademark PILInk is a trademark applied for trademark rights in Japan, the United States of America and other countries and areas. Windows<sup>®</sup> is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries. SLOID SHINE and PressIT are trademarks of Panasonic Holdings Corporation. All other trademarks are the property of the respective trademark of the counter of Co. Ltd. 2022. All tichts reasond

- 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

## • Wireless Presentation System PressIT

Note: Conditions apply. Availability may vary by country or region. Visit https://panasonic.net/cns/projector/products/swr10/ for more information.

TY-WPS1 (basic set) Visit https://panasonic.net/cns/prodisplays/pressit/ for more information.

- Wireless Module
- Note: Product availability may vary by country or region. Operating Temperature: 0–40 °C (32–104 °F).



AJ-WM50 Series

## 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-FRO60series G4 Printed in Japan