



**Easy-to-Manage, Super Simple 1 Chip DLP™ Laser Projector delivers Clear Pictures in Bright Rooms with Flexible Integration in the Classroom or Office**

## PT-FRZ60

DLP™ imaging technology, Quartet Colour Harmonizer, Rich Colour Enhancer, and digitally modulated Dynamic Contrast 2 optimization coalesce in images of surpassing brightness, colour, and clarity regardless of ambient light levels. Flexible 2.0x zoom lens with V/H Lens-Shift joins DIGITAL LINK and CEC-ready HDMI® terminals supporting 4K/60p input signals\*2. Separate LAN terminal and USB-DC outlet further streamline installation. Operation is almost inaudible at 27 dB\*4. Heat-pipe cooling for the laser modules and heat-sinks for airtight DMD block support filterless design for 20,000 hours of maintenance-free projection. Multi-Laser Drive Engine has failover circuit protection while optional Early Warning software reinforces reliability.

### Key Features

Laser 1-chip DLP, 6,000 lumens, WUXGA

DLP™ imaging technology, Quartet Colour Harmonizer, Rich Colour Enhancer, and digitally modulated Dynamic Contrast 2 optimization

Maintenance free up to 20,000 hours with dust-resistant optical block and long lasting laser engine

Flexible 2.0x zoom lens (1.46 – 2.94:1) with V/H Lens-Shift

Support uncompressed 4K/60p input signals via HDCP 2.2-compliant HDMI® inputs or DIGITAL LINK terminal





## PT-FRZ60

<https://eu.connect.panasonic.com/dk/en/products/projectors/pt-frz60>

<b>Projector type</b>	1-Chip DLP™ projector
<b>DLP™ Chip   Panel Size</b>	17.0 mm (0.67 in) diagonal (16:10 aspect ratio)
<b>DLP™ Chip   Display Method</b>	DLP™ chip x 1, DLP™ projection system
<b>DLP™ chip   Number of Pixels</b>	2,304,000 (1920 x 1200 pixels)
<b>Light Source</b>	Laser diodes
<b>Light output</b>	6,000 lm*1/6,200 lm (Center)*2
<b>Time until light output declines to 50 %*3</b>	20,000 hours (NORMAL)
<b>Resolution</b>	1920 x 1200 pixels
<b>Contrast Ratio*1</b>	20,000:1 (Full On/Full Off, Dynamic Contrast Mode: ON)
<b>Screen size [diagonal]</b>	1.02–7.62 m (40–300 in), 16:10 aspect ratio
<b>Center-to-corner zone ratio*1</b>	90 %
<b>Lens</b>	2.0x manual zoom (throw ratio: 1.46–2.94:1), manual focus, F 2.0–3.4, f 21.5–43.0 mm
<b>Lens shift   Vertical(From the origin point of the lens mounter)</b>	+64 %, -44 % (manual)
<b>Lens shift   Horizontal(From the origin point of the lens mounter)</b>	+34 %, -27 % (manual)
<b>Keystone Correction Range</b>	Vertical: ±40 °, Horizontal: ±20 °. When [VERTICAL KEYSTONE] and [HORIZONTAL KEYSTONE] are used simultaneously, correction cannot be made exceeding a total of ±60 °.
<b>Installation</b>	Ceiling/floor, front/rear, free 360-degree installation
<b>Terminals   HDMI In</b>	HDMI 19-pin x 2 (Compatible with HDCP 2.2, Deep Color, 4K/60p signal input*4), CEC supported
<b>Terminals   Computer 1 In</b>	D-sub HD 15-pin (female) x 1 (RGB/YPBPR/YCBCR/YC)
<b>Terminals   Computer 2 In/1 Out</b>	D-sub HD 15-pin (female) x 1 (RGB/YPBPR/YCBCR/YC)
<b>Terminals   Video In</b>	Pin jack x 1 (composite video)
<b>Terminals   Audio In 1</b>	Pin jack x 2 (L, R)
<b>Terminals   Audio In 2/3</b>	M3 x 1 / M3 x 1
<b>Terminals   Audio Out</b>	M3 x 1 (Variable)
<b>Terminals   Serial In</b>	D-sub 9-pin (female) x 1 for external control (RS-232C compliant)
<b>Terminals   DIGITAL LINK</b>	RJ-45 x 1 for network and DIGITAL LINK connections (HDBase™ compliant), PJLink™ (Class 2) compatible, 100Base-TX, Art-Net compatible, HDCP 2.2 compatible, Deep Color compatible, 4K/60p signal input*4
<b>Terminals   LAN</b>	RJ-45 x 1 for network connection, PJLink™ (Class 2) compatible, 10Base-T/100Base-TX, Art-Net compatible
<b>Terminals   USB</b>	USB connector (Type A) x 1 (Output 5 V/2 A)
<b>Power Supply</b>	AC 100–240 V, 50/60 Hz
<b>Power Consumption</b>	TBD
<b>Cabinet Materials</b>	Molded plastic
<b>Operation noise*1</b>	30 dB (Quiet Mode) (TBD), 35 dB (Normal Mode) (TBD)
<b>Dimensions (W x H x D)</b>	498 x 168*5 x 492 mm (19 5/8" x 6 5/8"*5 x 19 3/8" )
<b>Weight*6</b>	Approx. 16.6 kg (36.6 lbs) (TBD)
<b>Operating Environment</b>	Operating temperature: 0–40 °C (32–104 °F), operating humidity: 10–80 % (no condensation) (TBD)
<b>Applicable Software</b>	Logo Transfer Software, Multi Monitoring & Control Software, Early Warning Software
<b>Note</b>	*1 Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2012 international standards. Value is average of all products when shipped. *2 Average light-output value of all shipped products measured at center of screen in NORMAL Mode. *3 Around this time, light output will have decreased by approximately 50 %. IEC62087: 2008 Broadcast contents, NORMAL Mode, Dynamic Contrast [ON], under conditions with 35 °C (95 °F), 700 m (2,297 ft) above sea level, and 0.15 mg/m3 of particulate matter. Estimated time until light output declines to 50 % varies depending on environment. *4 4K signals are converted to the projector's resolution (1920 x 1200 pixels) upon projection. Supported terminals: DIGITAL LINK/HDMI®. *5 With legs at shortest position. *6 Average value. May differ depending on the actual unit.