

# Panasonic



**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://ap.pnd.panasonic.com/kr/en/pt-frz60>

<b>Projector type</b>	1-Chip DLP™ projector
<b>Display method</b>	DLP™ chip x 1, DLP™ projection system
<b>Display Device -&gt; Panel size</b>	17.0 mm (0.67 in) diagonal (16:10 aspect ratio)
<b>Display Device -&gt; Number of pixels</b>	2,304,000 (1920 x 1200 pixels)
<b>Light source</b>	Laser diodes
<b>Light output *1 *2 *3</b>	6,000 lm
<b>Light output (ANSI) *4</b>	6,000 lm
<b>Light output (Center) *5</b>	6,200 lm (Center)
<b>Time until light output declines to 50 %</b>	20,000 hours [NORMAL]
<b>-&gt; NORMAL *6</b>	
<b>Resolution</b>	1920 x 1200 pixels
<b>Contrast Ratio (typ.) *3</b>	20,000:1 (Full On/Full Off, Picture Mode: Dynamic, Dynamic Contrast 1, Operating Mode: Normal)
<b>Screen size (diagonal)</b>	1.02–7.62 m (40–300 in), 16:10 aspect ratio
<b>Center-to-corner zone ratio *3</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 -&gt; Vertical(from center of screen)</b>	+64 %, -44 % (manual)
<b>Lens shift -&gt; Horizontal(from center of screen)</b>	+34 %, -27 % (manual)
<b>Keystone correction range</b>	Vertical: ±40 °, Horizontal: ±20 °
<b>Installation</b>	Ceiling/floor, front/rear, free 360-degree installation
<b>Terminals -&gt; HDMI™ IN</b>	HDMI™ 19-pin x 2 (Compatible with HDCP 2.3, Deep Color, 4K/60p signal input*4), CEC supported
<b>Terminals -&gt; COMPUTER IN ( D-SUB 15pin )</b>	D-sub HD 15-pin (female) x 1 (RGB/YPBPR/YCBCR)
<b>Terminals -&gt; COMPUTER OUT ( D-SUB 15pin )</b>	D-sub HD 15-pin (female) x 1 (RGB/YPBPR/YCBCR)
<b>Terminals -&gt; VIDEO IN</b>	Pin jack x 1 (composite video)
<b>Terminals -&gt; AUDIO IN(M3 Stereo Mini Jack)</b>	Pin jack x 1 (L, R)
<b>Terminals -&gt; AUDIO IN(Pin Jack L/R)</b>	M3 x 1 / M3 x 1
<b>Terminals -&gt; AUDIO OUT(M3 Stereo Mini Jack)</b>	M3 x 1 (Variable)
<b>Terminals -&gt; SERIAL IN</b>	D-sub 9-pin (female) x 1 for external control (RS-232C compliant)
<b>Terminals -&gt; DIGITAL LINK IN / LAN</b>	RJ-45 x 1 for network and DIGITAL LINK connections (HDBaseT™ compliant), PJLink™ (Class 2) compatible, 100Base-TX, Art-Net compatible, HDCP 2.3 compatible, Deep Color compatible, 4K/60p signal input*4
<b>Terminals -&gt; LAN</b>	RJ-45 x 1 for network connection, PJLink™ (Class 2) compatible, 10Base-T/100Base-TX, Art-Net compatible
<b>Terminals -&gt; USB TYPE A</b>	USB connector (Type A) x 1 (Output 5 V/2 A)
<b>Power supply</b>	AC 100–240 V, 50/60 Hz
<b>Maximum power consumption *7</b>	540 W (5.8–2.3 A)
<b>On-mode power consumption(Operating mode) -&gt; Normal *8</b>	[NORMAL] 490 W
<b>On-mode power consumption(Operating mode) -&gt; Eco *8</b>	[ECO] 385 W
<b>On-mode power consumption(Operating mode) -&gt; Quiet *8</b>	[QUIET] 385 W
<b>Standby power consumption -&gt; Normal</b>	10 W ( Standby Mode ) [ NORMAL ]
<b>Standby power consumption -&gt; ECO</b>	0.5 W ( Standby Mode ) [ ECO ]
<b>Cabinet materials</b>	Molded plastic
<b>Filter</b>	No
<b>Operation noise -&gt; Normal *3</b>	35 dB [NORMAL]
<b>Operation noise -&gt; Quiet *3</b>	30 dB [QUIET]
<b>Body Colour</b>	PT-FRZ50B-BlackPT-FRZ50BEJ-BlackPT-FRZ50BD8-BlackPT-FRZ50W-WhitePT-FRZ50WEJ-White
<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>Dimensions -&gt; Width (including protruding parts)</b>	498 mm (19 5/8")
<b>Dimensions -&gt; Height (including protruding parts)</b>	168 mm (6 5/8")
<b>Dimensions -&gt; Depth (including lens)</b>	492 mm (19 3/8")
<b>Weight</b>	Approx. 16.1 kg (35.5 lbs)

<b>Operating environment -&gt; Operating temperature *11</b>	0-45 °C (32-113 °F)
<b>Operating Environment -&gt; Operating humidity (No condensation)</b>	10-80 % (no condensation)
<b>Applicable software</b>	Logo Transfer Software, Multi Monitoring & Control Software, Early Warning Software
<b>NFC</b>	No
<b>Terminals -&gt; SDI IN</b>	—
<b>Terminals -&gt; DVI-D IN</b>	—
<b>Terminals -&gt; DisplayPort™ IN</b>	—
<b>Operation noise -&gt; Eco *3</b>	—
<b>Gross Dimensions (W x H x D in mm)</b>	FRZ50W/FRZ50B/FRZ50BD8: Approx. 684 x 291 x 596 mm FRZ50WEJ/FRZ50BEJ: Approx. 694 x 310 x 606 mm
<b>Gross Weight (Kg)</b>	FRZ50W/FRZ50B: 20.7 kg (45.7 lbs) FRZ50WEJ/FRZ50BEJ: 22.2 kg (49.0 lbs) FRZ50BD8: 20.4 kg (45.0 lbs)
<b>Active 3D</b>	No
<b>SDM</b>	No
<b>EAN</b>	PT-FRZ50W: 5025232941407 PT-FRZ50WEJ: 5025232941414 PT-FRZ50B: 5025232941421 PT-FRZ50BEJ: 5025232941438 PT-FRZ50BD8: 8887549898648
<b>Footnote Description</b>	<ol style="list-style-type: none"> <li>1. When [PICTURE MODE] is set to [DYNAMIC], [DAYLIGHT VIEW] is set to [OFF], [DYNAMIC CONTRAST] is set to [OFF], [LIGHT OUTPUT] is set to [100%], and [AUTO POWER SAVE] is set to [OFF].</li> <li>2. Measurement, measuring conditions, and method of notation all comply with ISO/IEC 21118: 2020 international standards. Value is the average of all products when shipped.</li> <li>3. Measurement, measuring conditions, and method of notation all comply with American National Standards Institute standards. Value is the average of all products when shipped.</li> <li>4. Average light-output value of all shipped products measured at the center of the screen.</li> <li>5. Around this time, light output will have decreased by approximately 50 %. IEC62087: 2008 Broadcast Contents, Normal Mode, Dynamic Contrast 2, temperature 30 °C (86 °F), elevation 700 m (2,297 ft) with 0.15 mg/m3 of airborne particulate matter. Estimated time until light output declines to 50 % varies depending on environment.</li> <li>6. 4K signals are converted to the projector's resolution (1920 x 1200 pixels) upon projection. Supported terminals: DIGITAL LINK/HDMI®.</li> <li>7. With legs at shortest position.</li> <li>8. Average value. May differ depending on the actual unit.</li> </ol>