# PT-FRZ50

#### Specifications Main unit

Main unit			1								
Power supply	1		AC 100-240 V, 50 Hz/60 Hz (Taiwan: AC 110 V, 60 Hz)								
Power consumption*2	Maximum power co	onsumption	465 W (5.0 A-2.0 A) (Taiwan: 4.7 A)								
	OPERATING MODE	[NORMAL]	370 W*1								
	rer supply rer consumption*2 Maximum power consumption OPERATING MODE [INORMAL] [ECO] [QUIET] STANDBY MODE [INORMAL] [ECO] value TM chip Panel size Projection system Pixels t source tt source tt source tt source tt source tt output OPERATING MODE [NORMAL] [ECO] [QUIET] e until light output lines to 50%*4 OPERATING MODE [INORMAL] [ECO] [QUIET] olution trast ratio*2 seen size (diagonal) ter to corner zone ratio*2 s s shift Vertical (from center of screen)	[EC0]	295 W*1								
		[QUIET]	295 W*1								
	STANDBY MODE	[NORMAL]	[IN STANDBY MODE] set to [OFF], [QUICK STARTUP] set to [OFF], and <dc out=""> terminal not in use: 10W [IN STANDBY MODE] set to [OFF], [QUICK STARTUP] set to [OFF], and <dc out=""> terminal supplies power (2A): 2 [IN STANDBY MODE] set to [ON], [QUICK STARTUP] set to [OFF], and <dc out=""> terminal supplies power (2A): 35 [IN STANDBY MODE] set to [ON], [QUICK STARTUP] set to [ON], and <dc out=""> terminal supplies power (2A): 65</dc></dc></dc></dc>								
		[EC0]	Approx. 0.5 W								
BTU value			Max. 1,587 BTU								
DLP™ chip	Panel size		17.0 mm [0.67 in] diagonal (16:10 aspect ratio)								
	Projection system		DLP <sup>™</sup> chip x 1, DLP <sup>™</sup> projection system								
	Pixels		2,304,000 (1920 x 1200 pixels)								
Light source			Laser diodes								
Light output	OPERATING MODE	[NORMAL]	5,200 lm*2/5,400 lm (Center)*3 When [PICTURE MODE] is set to [DYNAMIC], [DAYLIGHT VIEW]								
		[ECO]	4,100 lm*2 is set to [OFF], [DYNAMIC CONTRAST] is set to [OFF], [LIGHT								
		[QUIET]	4,100 lm*2 OUTPUT] is set to [100%] and [AUTO POWER SAVE] is set to [0Ff								
Time until light output	OPERATING MODE		20,000 hours								
declines to 50%*4		[EC0]	24,000 hours								
		[QUIET]	20,000 hours								
Resolution		1	1920 x 1200 pixels								
Contrast ratio*2			20,000:1 (All White/All Black) [PICTURE MODE] is set to [DYNAMIC], [OPERATING MODE] is set to [NORMAL], Dynamic Contrast								
Screen size (diagonal)			1.02-7.62 m [40-300 in], 16:10 aspect ratio								
Center to corner zone ra	atio*2		90%								
Lens			2.0x manual zoom (throw ratio: 1.46-2.94:1), manual focus, F 2.0-3.4, f 21.5-43.0 mm								
Lens shift	Vertical (from cente	er of screen)	-44% ~ +64% (manual)								
(From the origin point of		,	-27% ~ +34% (manual)								
	ange		[VERTICAL KEYSTONE] (viewed from the side) [HORIZONTAL KEYSTONE] (Viewed from above)								
			Vertical arc correction (viewed from the side) Vertical arc correction (viewed from the side) Horizontal arc correction (viewed from above) L2 Projection distance R2: Arc radius Screen R2: Arc radius								
			$\begin{tabular}{ c c c c c c c } \hline & & & & & & & & & & & & & & & & & & $								
			±40     ±20     ±15     0.9     1.7     0.5     1.0       • When [SCREEN ADJUSTMENT] is used, the focus of the entire screen may be lost as correction increases.     • Make the curved screen a circular arc shape with one part of a perfect circle removed.								

Installation			Ceiling/floor, front/	/rear					
Compatible Signal	Video input		Horizontal: 15.73 kHz, Vertical: 59.94 Hz						
	Y/C input		Horizontal: 15.63	3 kHz, Vertical: 50 Hz					
	RGB input		Resolution: 640	x 400 to 1920 x 1200					
Terminals			Dot clock frequency: 162 MHz or less						
			,	Intelligent Auto Scanning) system					
	YC <sub>B</sub> C <sub>R</sub> /YP <sub>B</sub> P <sub>R</sub> input			/576i to 1920 x 1080					
				ncy: 148.5 MHz or less					
	UDMLinnut			nd VD terminals do not support 3 value SYNC.					
	HDMI input		0 0	ignal resolution: 480i*5/576i*5 to 4096 x 2160 al resolution: 640 x 400 to 1920 x 1200 (non-interlace)					
				ency: 25 MHz to 594 MHz					
	DIGITAL LINK input			ignal resolution: 480i*5/576i*5 to 4096 x 2160					
				al resolution: 640 x 400 to 1920 x 1200 (non-interlace)					
				ncy: 25 MHz to 297 MHz					
Terminals	COMPUTER 1 IN		D-sub HD 15-pin (						
		RGB signal	0.7 V [p-p] 75 Ω (S	SYNC ON GREEN: 1.0 V [p-p] 75 Ω)					
		_	SYNC/HD	TTL high impedance, automatic positive/negative polarity compatible					
			VD	TTL high impedance, automatic positive/negative polarity compatible					
		YP <sub>B</sub> P <sub>R</sub> signal	Y: 1.0 V [p-p] inclu	ding synchronization signal, $P_BP_R$ : 0.7 V [p-p] 75 $\Omega$					
		Y/C signal	Y: 1.0 V [p-p], C: 0.286 V [p-p] 75 Ω						
	COMPUTER 2 IN/1 (	DUT	D-sub HD 15-pin (	female) x 1					
		RGB signal	0.7 V [p-p] 75 Ω (S	SYNC ON GREEN: 1.0 V [p-p] 75 Ω)					
			SYNC/HD	TTL high impedance, automatic positive/negative polarity compatible					
			VD	TTL high impedance, automatic positive/negative polarity compatible					
		YP <sub>B</sub> P <sub>R</sub> signal	Y: 1.0 V [p-p] inclu	ding synchronization signal, $P_BP_R$ : 0.7 V [p-p] 75 $\Omega$					
	HDMI 1 IN/HDMI 2 I	N	HDMI 19-pin x 2 Compatible with HDCP 2.3, Deep Color, 4K/60p signal input*6, CEC suppor						
		Audio signal	Linear PCM (sampling frequency: 48 kHz/44.1 kHz/32 kHz)						
	VIDEO IN		pin jack x 1	1.0 V [p-p] 75 Ω					
	AUDIO IN 1		pin jack x 2 (L-R)	0.5 V [rms], input impedance 22 $k\Omega$ or more					
	AUDIO IN 2/AUDIO I	N 3	M3 stereo mini jac	$k \ge 2$ 0.5 V [rms], input impedance 22 k $\Omega$ or more					
	VARIABLE AUDIO OL	JT	M3 stereo mini jac	sk x 1 (monitor output, stereo compatible)					
				0 V [rms] to 1.80 V [rms] (variable), output impedance 2.2 $k\Omega$ or less					
	SERIAL IN		D-Sub 9 p x 1	RS-232C compliant, for computer control					
	DIGITAL LINK/LAN		RJ-45 x 1	PJLink (class 2) compatible, 100Base-TX, Art-Net compatible,					
				HDCP 2.3 compatible, Deep Color compatible, 4K/60p signal input*6					
	LAN		RJ-45 x 1	for network connection, PJLink (class 2) compatible, 10Base-T/100Base-T/ Art-Net compatible					
	DC OUT		USB connector (ty	pe A) x 1 for power supply only (DC 5 V, maximum 2 A)					
Power cord length			3.0 m [118-1/8 in]	], 2.0 m [78-3/4 in] (for Taiwan)					
Cabinet materials			Molded plastic						
Dimension (W x H x D)			498 x 168*7 x 492	mm [19-5/8 x 6-5/8*7 x 19-3/8 in]					
Weight*8			Approx. 16.0 kg (3	15.3 lbs)					
Operating noise*2			32 dB [NORMAL] [	EC0] / 27 dB [QUIET]					
Operating	Operating temperat	ure	VD         TTL high impedance, automatic positive/negative polarity compatible           Inal         Y: 1.0 V [p-p] including synchronization signal, P <sub>B</sub> P <sub>R</sub> : 0.7 V [p-p] 75 Ω           al         Y: 1.0 V [p-p], C: 0.286 V [p-p] 75 Ω           D-sub HD 15-pin (female) x 1         D           inal         0.7 V [p-p] 75 Ω (SYNC ON GREEN: 1.0 V [p-p] 75 Ω)           SYNC/HD         TTL high impedance, automatic positive/negative polarity compatible           VD         TTL high impedance, automatic positive/negative polarity compatible           Inal         Y: 1.0 V [p-p] 75 Ω           Inal         Including synchronization signal, P <sub>B</sub> P <sub>R</sub> : 0.7 V [p-p] 75 Ω           Innal         Linear PCM (sampling frequency: 48 kHz/44.1 kHz/32 kHz)           pin jack x 1         1.0 V [p-p] 75						
environment	Operating humidity		10-80% (no conde	ensation)					
Laser Classification	Laser Class		Class 1 (IEC/EN 60	)825-1:2014)					
	Risk Group		Risk Group 2 (IEC	62471-5:2015)					
emote control unit									
Power supply			3V DC (AAA/R03/L	R03 battery x 2)					
Operation range			Approx. 30 m [98	ft 5 in] (when operated directly in front of signal receiver)					
Dimensions (W x H x D	)			[1-7/8 x 5-23/32 x 1-1/16 in]					
Waight			400 (0.0	20 and Lingluding bettering					

Weight

Approx. 102 g (3.60 ozs.) including batteries

PT-FRZ50

#### FILE PEC

#### 1-Chip DLP™ Projectors

## PT-FRZ50

#### **Other Applications**

Multi Monitoring Control Software (for Windows) Logo Transfer Software (for Windows) Projector Network Setup Software (for Windows)

#### Supplied accessories

Wireless remote control unit (x 1) Power cord with secure lock (x 1) (x 2 for Europe/ASIA models) Batteries for remote control (AAA/R03 or AAA/LR03 battery x 2)

#### **Optional accessories**

Ceiling Mount Bracket	ET-PKD120H (for high ceiling)						
	ET-PKD120S (for low ceiling)						
Projector Mount Bracket	ET-PKD130B						
DIGITAL LINK Switcher	ET-YFB200G						
Digital Interface Box	ET-YFB100G						
Early Warning Software	ET-SWA100 Series						
	*The suffix of the Model No. differs according to the license type.						
D-sub/S-VIDEO Conversion Cable	ET-ADSV						

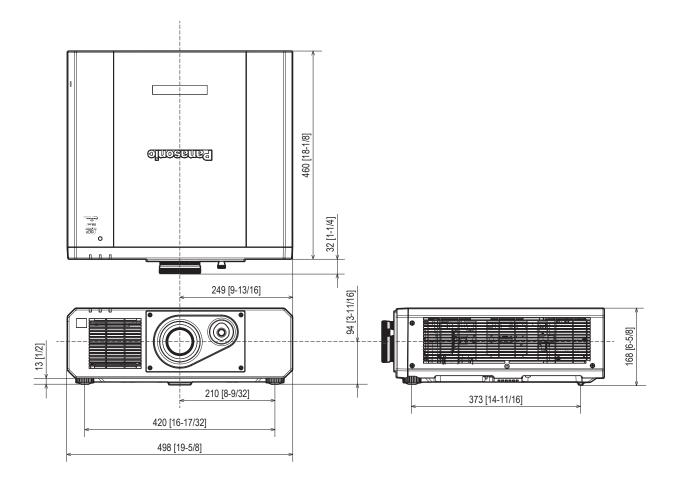
- \*1 Operating Temperature 25 °C(77 °F), Altitude 700 m (2297 ft), IEC62087.2008 Broadcast contents, Picture Mode: Standard, Dynamic Contrast [2].
   \*2 Measurement, measuring conditions, and method of notation all comply with ISO/EC 21118: 2020 international standards. Value is average of all products when shipped.
   \*3 Average light-output value of all shipped products measured at center of screen in NORMAL Mode.
   \*4 Around this time, light output will wereased by approximately 50%. IEC60287: 2008 Broadcast contents, Dynamic Contrast [2], under conditions with 30°C (86°F), 700m (2,297ft) above sea level, and 0.15 mg/m³ of particulate matter. Estimated time until light output declines to 50% varies depending on environment.
- \*5 Only dot clock frequency 27MHz (Pixel Repetition signal) is supported.
  \*6 Only for HDMI and DIGITAL LINK terminals, supports up to 4K/60p. 4K signals are converted to 1080/60p upon projection.
  \*7 With legs at shortest position.

\*7 With legs at shortest position.
\*8 Average value. May differ depending on the actual unit.
\*8 Average value. May differ depending on the actual unit.
\*9 The operating environment temperature should be between 0°C (32°F) and 40°C (104°F) if the projector is used at an altitude between 1400m (4593ft) and 4200m (13780ft) above sea level.
When the [PROJECTOR SETUP] menu → [ECO MANAGEMENT] → [OPERATING MODE] is set to [ECO] or [QUIET], the projector cannot be used at an altitude of 2700m (8858ft) or higher above sea level.
When using the projector at an altitude lower than 2700m (8858ft) above sea level, and the operating environment temperature becomes 25°C (77°F) or higher, the light output may be reduced to protect the projector.
When using the projector at an altitude between 2700m (8858ft) and 4200m (13780ft), and the operating environment temperature becomes 25°C (77°F) or higher, the light output may be reduced to protect the projector.

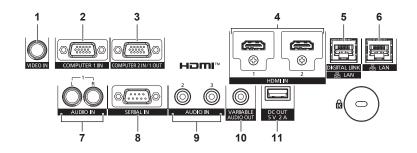
#### Dimensions

unit : mm (inch) NOTE: This illustration is not drawn to scale.

PT-FRZ50



### **Terminals**

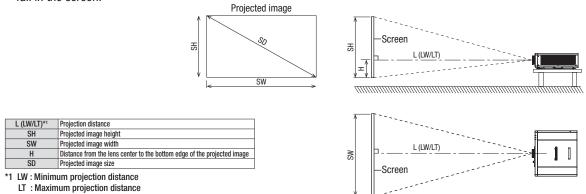


1	VIDEO IN	7	AUDIO IN 1
2	COMPUTER 1 IN	8	SERIAL IN
3	COMPUTER 2 IN/1 OUT	9	AUDIO IN 2/AUDIO IN 3
4	HDMI 1 IN/HDMI 2 IN	10	VARIABLE AUDIO OUT
5	DIGITAL LINK/LAN	11	DC OUT
6	LAN		

### Projected image and throw distance

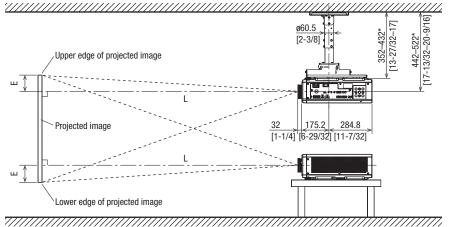
Install the projector referring to the projected image size and projection distance. Image size and image position can be adjusted in accordance with the screen size and screen position.

• Following illustration is prepared on the assumption that the projected image size and position have been aligned to fit full in the screen.



#### Standard setting-up position

Illustrations show the projector installed using optional ceiling mountbracket ET-PKD120H, optional bracket assembly ET-PKD130B.



unit : mm (inch)

NOTE: This illustration is not drawn to scale.

\* Adjustable in 40 mm [1-9/16 in] steps.



• All construction work should be done by a qualified technician.

When mounting to the ceiling, use the special mounting bracket.

Projected image

Furthermore, in order to prevent it from falling down from the ceiling, use the supplied wire on the mounting bracket.

100 [3-15/16]

100 [3-15/16]

<u>259</u> [10-3/16] 370 4-9/16]

## PT-FRZ50

Unit: feet

#### **Projection distance**

A  $\pm 5\%$  error in listed projection distances may occur.

When [SCREEN ADJUSTMENT] is used, distance is corrected to become smaller than the specified image size.

									Unit: meters	
Projected image size		Aspect rati	o 16:10		Aspect rat	io 16:9	Aspect ratio 4:3			
Projecteu image size	Projection	distance (L)	Hoight position (U)	Projection	distance (L)	Hoight position (U)	Projection of	distance (L)	light position (II)	
Diagonal (SD)	Min. (LW)	Max. (LT)	Height position (H)	Min. (LW)	Max. (LT)	Height position (H)	Min. (LW)	Max. (LT)	Height position (H)	
1.02/40	1.22	2.51	-0.08 - 0.51	1.26	2.58	-0.07 - 0.47	1.39	2.85	-0.09 - 0.58	
1.27/ 50	1.54	3.15	-0.09 - 0.63	1.59	3.23	-0.09 - 0.59	1.75	3.57	-0.11 - 0.72	
1.52/ 60	1.86	3.78	-0.11 - 0.76	1.92	3.89	-0.10 - 0.70	2.12	4.29	-0.13 - 0.86	
1.78/70	2.18	4.42	-0.13 - 0.89	2.24	4.55	-0.12 - 0.82	2.48	5.01	-0.15 - 1.00	
2.03/ 80	2.50	5.06	-0.15 - 1.01	2.57	5.20	-0.14 - 0.94	2.84	5.73	-0.17 - 1.14	
2.29/ 90	2.82	5.70	-0.17 - 1.14	2.90	5.86	-0.16 - 1.06	3.20	6.46	-0.19 - 1.29	
2.54/100	3.14	6.34	-0.19 - 1.27	3.23	6.51	-0.17 - 1.17	3.57	7.18	-0.21 - 1.43	
3.05/120	3.78	7.61	-0.23 - 1.52	3.89	7.82	-0.21 - 1.41	4.29	8.62	-0.26 - 1.72	
3.81/150	4.74	9.53	-0.28 - 1.90	4.88	9.79	-0.26 - 1.76	5.38	10.79	-0.32 - 2.15	
5.08/200	6.34	12.72	-0.38 - 2.53	6.52	13.07	-0.35 - 2.34	7.19	14.40	-0.43 - 2.87	
6.35/250	7.94	15.91	-0.47 - 3.16	8.16	16.35	-0.44 - 2.93	9.00	18.01	-0.53 - 3.58	
7.62/300	9.54	19.10	-0.57 - 3.80	9.81	19.63	-0.52 - 3.51	10.81	21.62	-0.64 - 4.30	

Aspect ratio 16:10 Aspect ratio 16:9 Aspect ratio 4:3										
Projected image size			0 10.10			10 10.3	•			
	Projection of	distance (L)	Height position (H)	Projection	distance (L)	Height position (H)	Projection	distance (L)	Height position (H)	
Diagonal (SD)	Min. (LW)	Max. (LT)	noight position (n)	Min. (LW)	Max. (LT)		Min. (LW)	Max. (LT)	noight position (ii)	
1.02/40	4.00	8.23	- 0.26 - 1.67	4.13	8.46	- 0.23 - 1.54	4.56	9.35	- 0.30 - 1.90	
1.27/ 50	5.05	10.33	- 0.30 - 2.07	5.22	10.60	- 0.30 - 1.94	5.74	11.71	- 0.36 - 2.36	
1.52/ 60	6.10	12.40	- 0.36 - 2.49	6.30	12.76	- 0.33 - 2.30	6.96	14.07	- 0.43 - 2.82	
1.78/ 70	7.15	14.50	- 0.43 - 2.92	7.35	14.93	- 0.39 - 2.69	8.14	16.44	- 0.49 - 3.28	
2.03/ 80	8.20	16.60	- 0.49 - 3.31	8.43	17.06	- 0.46 - 3.08	9.32	18.80	- 0.56 - 3.74	
2.29/ 90	9.25	18.70	- 0.56 - 3.74	9.51	19.23	- 0.52 - 3.48	10.50	21.19	- 0.62 - 4.23	
2.54/100	10.30	20.80	- 0.62 - 4.17	10.60	21.36	- 0.56 - 3.84	11.71	23.56	- 0.69 - 4.69	
3.05/120	12.40	24.97	- 0.75 - 4.99	12.76	25.66	- 0.69 - 4.63	14.07	28.28	- 0.85 - 5.64	
3.81/150	15.55	31.27	- 0.92 - 6.23	16.01	32.12	- 0.85 - 5.77	17.65	35.40	- 1.05 - 7.05	
5.08/200	20.80	41.73	- 1.25 - 8.30	21.39	42.88	- 1.15 - 7.68	23.59	47.24	- 1.41 - 9.42	
6.35/250	26.05	52.20	- 1.54 - 10.37	26.77	53.64	- 1.44 - 9.61	29.53	59.09	- 1.74 - 11.75	
7.62/300	31.30	62.66	- 1.87 - 12.47	32.18	64.40	- 1.71 - 11.52	35.47	70.93	- 2.10 - 14.11	

### Calculation of the projection distance

To use a projected image size not listed in this manual, check the projected image size SD (m) and use the respective formula to calculate the value.

The unit of all the formulae is m. (Values obtained by the following calculation formulae contain a slight error.) When calculating the value using image size designation (value in inches), multiply the value in inches by 0.0254 and substitute it into SD in the formula.

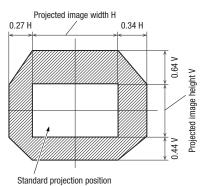
	Aspect ratio 16:10	Aspect ratio 16:9	Aspect ratio 4:3
Projected image size Height (SH)	= SD x 0.530	= SD x 0.490	= SD x 0.6
Projected image size Width (SW)	= SD x 0.848	= SD x 0.872	= SD x 0.8
Minimum projection distance (LW)	= 1.2598 x SD - 0.0526	= 1.2949 x SD - 0.0526	= 1.4262 x SD - 0.0526
Maximum projection distance (LT)	= 2.5118 x SD - 0.0390	= 2.5816 x SD - 0.0390	= 2.8436 x SD - 0.0390

## PT-FRZ50

### Adjustment range by the lens position shift (optical shift)

Based on the standard projection position using the optical axis shift function, the projection position can be adjusted in the range shown in the following figure.

Following figure shows the adjustment range when the projector is installed on the floor.

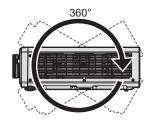


• Optimal image can be achieved by installing the projector squarely in front of the screen and adjusting the lens shift lever to center.

#### Installable angle

Install the projector at an angle within the range shown below.

#### Projection in all 360° direction







360° vertically

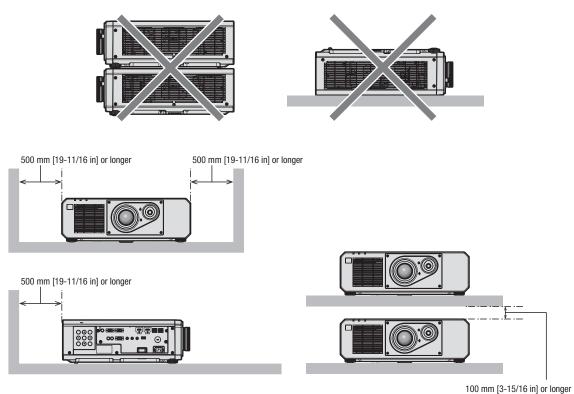
360° horizontally

360° tilted (combination of vertical and horizontal)

## PT-FRZ50

#### Cautions when setting up the projector

- Do not stack projectors on top of each other.
- Do not use the projector supporting it by the top.
- Do not block the intake and exhaust vents of the projector.
- Prevent hot and cool air from the air conditioning system to blow directly to the intake and exhaust vents of the projector.



• Do not install the projector in a confined space.

When installing the projector in a confined space, provide air conditioning or ventilation separately. Exhaust heat may accumulate when the ventilation is not enough, triggering the protection circuit of the projector.

#### List of compatible signals

The following table specifies the video signals compatible with the projector.

• Symbols that indicate formats are as follows.

 $\label{eq:VIDEO} -V: \text{VIDEO}, \text{Y/C} \quad -\text{R: RGB (analog)} \quad -\text{Y: YC}_{\text{B}}\text{C}_{\text{R}}/\text{YP}_{\text{B}}\text{P}_{\text{R}} \text{ (analog)} \quad -\text{H: HDMI} \quad -\text{DL: DIGITAL LINK}$ 

• Input corresponding to each item in the plug and play column is as follows.

-COMPUTER: COMPUTER1/COMPUTER2 input -HDMI: HDMI1/HDMI2 input -DIGITAL LINK: DIGITAL LINK input Sconning frog 

Cignal name	Popolution	Scanning freq.		Dot clock		Plug and play*1							
Signal name (SIGNAL FORMAT)	Resolution (Dots)	Horizontal Vertical		freq.	Format	COMPUTER HDMI DIGITAL LINK							
(,		(kHz)	(Hz)	(MHz)		GOMPOTEN	4K/60P	4K/30P	2K	4K/60P	4K/30P	2K	
NTSC/NTSC4.43/ PAL-M/PAL60	720 x 480i	15.7	59.9	-	V	-	-	-	-	-	-	-	
PAL/PAL-N/SECAM	720 x 576i	15.6	50.0	-	V	-	-	-	-	-	-	-	
480/60i	720 x 480i	15.7	59.9	13.5	R/Y	-	-	-	-	-	-	-	
576/50i	720 x 576i	15.6	50.0	13.5	R/Y	-	-	-	-	-	-	-	
480/60i	720(1440) x 480i*2	15.7	59.9	27.0	H/DL	-	-	-	-	-	-	-	
576/50i	720(1440) x 576i*2	15.6	50.0	27.0	H/DL	-	-	-	-	-	-	-	
480/60p	720 x 480	31.5	59.9	27.0	R/Y/H/DL	-	1	1	1	1	1	1	
576/50p	720 x 576	31.3	50.0	27.0	R/Y/H/DL	-	1	1	1	1	1	1	
720/60p	1280 x 720	45.0	60.0	74.3	R/Y/H/DL	-	1	1	1	1	1	1	
720/50p	1280 x 720	37.5	50.0	74.3	R/Y/H/DL	-	1	1	1	1	1	1	
1080/60i	1920 x 1080i	33.8	60.0	74.3	R/Y/H/DL	-	1	1	1	1	1	1	
1080/50i	1920 x 1080i	28.1	50.0	74.3	R/Y/H/DL	-	1	1	1	1	1	1	
1080/24p	1920 x 1080	27.0	24.0	74.3	R/Y/H/DL	-	1	1	1	1	1	1	
1080/24sF	1920 x 1080i	27.0	48.0	74.3	R/Y/H/DL	-	_	-	-	_	-	_	
1080/25p	1920 x 1080	28.1	25.0	74.3	R/Y/H/DL	-	-	-	-	-	-	_	
1080/30p	1920 x 1080	33.8	30.0	74.3	R/Y/H/DL	-	-	-	-	-	-	_	
1080/60p	1920 x 1080	67.5	60.0	148.5	R/Y/H/DL	_	_	_	_	_	_	_	
1080/50p	1920 x 1080	56.3	50.0	148.5	R/Y/H/DL	_	_	-	_	_	-	_	
3840 x 2160/24p	3840 x 2160	54.0	24.0*5	297.0	H/DL	_	1	1	1	1	1	1	
3840 x 2160/25p	3840 x 2160	56.3	25.0	297.0	H/DL	-	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓		
3840 x 2160/30p	3840 x 2160	67.5	30.0*5	297.0	H/DL	_	· ·	✓ ✓	✓ ✓	<i>✓</i>	✓ ✓		
0040 X 2100/00p	3840 x 2160*6	135.0	60.0* <sup>5</sup>	297.0	H/DL	_	✓ ✓	-	-	✓ ✓	-		
3840 x 2160/60p	3840 x 2160	135.0	60.0* <sup>5</sup>	594.0	Н	-	✓ ✓	_	_	-	_		
	3840 x 2160*6	112.5	50.0	297.0	H/DL	-	✓ ✓	_	_	-	-		
3840 x 2160/50p	3840 x 2160	112.5	50.0	594.0	H	-	✓ ✓				_		
4006 x 2160/24p	4096 x 2160	54.0	24.0*5	297.0	H/DL	-	✓ ✓	-	-	-	-	-	
4096 x 2160/24p		54.0	24.0 °	297.0	H/DL H/DL	-	✓ ✓	✓ ✓			✓ ✓		
4096 x 2160/25p	4096 x 2160								1	1			
4096 x 2160/30p	4096 x 2160	67.5	30.0*5	297.0	H/DL	-	<i>√</i>	1	1	1	1	1	
4096 x 2160/60p	4096 x 2160*6	135.0	60.0* <sup>5</sup>	297.0	H/DL	-	✓ ✓	-	-	1	-	-	
	4096 x 2160	135.0	60.0*5	594.0	H	-	<i>√</i>	-	-	-	-	-	
4096 x 2160/50p	4096 x 2160*6	112.5	50.0	297.0	H/DL	-	1	-	-	1	-		
0.40 400/70	4096 x 2160	112.5	50.0	594.0	H	-	1	-	-	-	-		
640 x 400/70	640 x 400	31.5	70.1	25.2	R/H/DL	-	-	-	-	-	-	-	
640 x 400/85	640 x 400	37.9	85.1	31.5	R/H/DL	-	-	-	-	-	-	-	
640 x 480/60	640 x 480	31.5	59.9	25.2	R/H/DL	1	1	1	1	1	1	1	
640 x 480/67	640 x 480	35.0	66.7	30.2	R/H/DL	-	-	-	-	-	-	-	
640 x 480/73	640 x 480	37.9	72.8	31.5	R/H/DL	1	1	1	1	1	1	1	
640 x 480/75	640 x 480	37.5	75.0	31.5	R/H/DL	1	1	1	1	1	1	1	
640 x 480/85	640 x 480	43.3	85.0	36.0	R/H/DL	-	-	-	-	-	-	-	
800 x 600/56	800 x 600	35.2	56.3	36.0	R/H/DL	1	1	1	1	1	1	1	
800 x 600/60	800 x 600	37.9	60.3	40.0	R/H/DL	1	1	1	1	1	1	1	
800 x 600/72	800 x 600	48.1	72.2	50.0	R/H/DL	1	1	1	1	1	1	1	
800 x 600/75	800 x 600	46.9	75.0	49.5	R/H/DL	1	1	1	1	1	1	1	
800 x 600/85	800 x 600	53.7	85.1	56.3	R/H/DL	-	-	-	-	-	-	-	
832 x 624/75	832 x 624	49.7	74.6	57.3	R/H/DL	1	1	1	1	1	1	1	
1024 x 768/50	1024 x 768	39.6	50.0	51.9	R/H/DL	-	-	-	-	-	-	-	
1024 x 768/60	1024 x 768	48.4	60.0	65.0	R/H/DL	1	1	1	1	1	1	1	
1024 x 768/70	1024 x 768	56.5	70.1	75.0	R/H/DL	1	1	1	1	1	1	1	
1024 x 768/75	1024 x 768	60.0	75.0	78.8	R/H/DL	1	1	1	1	1	1	1	
1024 x 768/82	1024 x 768	65.5	81.6	86.0	R/H/DL	-	-	-	-	-	-	-	
1024 x 768/85	1024 x 768	68.7	85.0	94.5	R/H/DL	-	-	-	-	-	-	-	
1024 x 768/100	1024 x 768	81.4	100.0	113.3	R/H/DL	-	-	-	-	-	-	-	
1024 x 768/120	1024 x 768	98.7	120.0	139.1	R/H/DL	1	1	1	1	1	1	1	
1152 x 864/60	1152 x 864	53.7	60.0	81.6	R/H/DL	-	_	-	_	-	-	-	
1152 x 864/70	1152 x 864	64.0	70.0	94.2	R/H/DL	-	_	-	_	-	-	_	
1152 x 864/75	1152 x 864	67.5	75.0	108.0	R/H/DL	_	_	_	_	_	_	_	

Panasonic

## PT-FRZ50

o: .		Scanning freq.		Dot clock		Plug and play*1							
Signal name (SIGNAL FORMAT)	Resolution (Dots)	Horizontal Vertical		freq.	Format			HDMI		DIGITAL LINK			
		(kHz)	(Hz)	(MHz)		COMPUTER	4K/60P	4K/30P	2K	4K/60P	4K/30P	2K	
1152 x 864/85	1152 x 864	77.1	85.0	119.7	R/H/DL	-	-	-	-	-	-	-	
1152 x 870/75	1152 x 870	68.7	75.1	100.0	R/H/DL	1	1	1	1	1	1	1	
1280 x 720/50	1280 x 720	37.1	49.8	60.5	R/H/DL	-	-	-	-	-	-	-	
1280 x 720/60	1280 x 720	44.8	59.9	74.5	R/H/DL	-	-	-	-	-	-	_	
1280 x 720/100	1280 x 720	76.3	100.0	131.8	R/H/DL	-	-	-	-	-	-	_	
1280 x 720/120	1280 x 720	92.6	120.0	161.6	R/H/DL	-	-	-	-	-	-	_	
1280 x 768/50	1280 x 768	39.6	49.9	65.3	R/H/DL	-	-	-	-	-	-	-	
	1280 x 768	47.8	59.9	79.5	R/H/DL	-	-	-	-	-	-	-	
1280 x 768/60	1280 x 768*3	47.4	60.0	68.3	R/H/DL	-	-	-	-	-	-	-	
1280 x 768/75	1280 x 768	60.3	74.9	102.3	R/H/DL	-	-	-	-	-	_	-	
1280 x 768/85	1280 x 768	68.6	84.8	117.5	R/H/DL	-	-	-	-	-	-	-	
1280 x 800/50	1280 x 800	41.3	50.0	68.0	R/H/DL	_	_	_	_	-	_	-	
	1280 x 800	49.7	59.8	83.5	R/H/DL	_	_	_	-	-	_	_	
1280 x 800/60	1280 x 800*3	49.3	59.9	71.0	R/H/DL	_	_	_	_	_	_	_	
1280 x 800/75	1280 x 800	62.8	74.9	106.5	R/H/DL	-	_	_	_	-	_	_	
1280 x 800/85	1280 x 800	71.6	84.9	122.5	R/H/DL	-	_	_	_	-	_	_	
1280 x 960/60	1280 x 960	60.0	60.0	108.0	R/H/DL	_	_	_	_	_	_		
1280 x 1024/50	1280 x 1024	52.4	50.0	88.0	R/H/DL	_	_	_	_	_	_		
1280 x 1024/50	1280 x 1024	64.0	60.0	108.0	R/H/DL	_		_	-	-	_		
1280 x 1024/66	1280 x 1024	72.3	66.3	125.0	R/H/DL	_	_	_	_	_	_		
	1280 x 1024		72.0		R/H/DL			_	_	_	_		
1280 x 1024/72 1280 x 1024/75	1280 x 1024	78.2 80.0	72.0	135.1 135.0	R/H/DL R/H/DL	-	-	-	-	-	-	-	
							-	-		-	-		
1280 x 1024/85	1280 x 1024	91.1	85.0	157.5	R/H/DL	-			-			-	
1366 x 768/50	1366 x 768	39.6	49.9	69.0	R/H/DL	-	-	-	-	-	-	-	
1366 x 768/60	1366 x 768	47.7	59.8	85.5	R/H/DL	-	-	-	-	-	-	-	
1400 x 1050/50	1400 x 1050	54.1	50.0	99.9	R/H/DL	-	-	-	-	-	-	-	
	1400 x 1050	64.0	60.0	108.0	R/H/DL	-	-	-	-	-	-	-	
1400 x 1050/60	1400 x 1050	65.3	60.0	121.8	R/H/DL	-	-	-	-	-	-	-	
	1400 x 1050	65.2	60.0	122.6	R/H/DL	1	1	1	1	1	1	1	
1400 x 1050/72	1400 x 1050	78.8	72.0	149.3	R/H/DL	-	-	-	-	-	-	-	
1400 x 1050/75	1400 x 1050	82.2	75.0	155.9	R/H/DL	-	-	-	-	-	-	-	
1440 x 900/50	1440 x 900	46.3	49.9	86.8	R/H/DL	-	-	-	-	-	-	-	
1440 x 900/60	1440 x 900	55.9	59.9	106.5	R/H/DL	-	-	-	-	-	-	-	
1600 x 900/50	1600 x 900	46.4	49.9	96.5	R/H/DL	-	-	-	-	-	-	-	
1600 x 900/60	1600 x 900	55.9	60.0	119.0	R/H/DL	1	1	1	1	1	1	1	
1600 x 1200/50	1600 x 1200	61.8	49.9	131.5	R/H/DL	-	-	-	-	-	-	-	
1600 x 1200/60	1600 x 1200	75.0	60.0	162.0	R/H/DL	1	1	1	1	1	1	1	
1680 x 1050/50	1680 x 1050	54.1	50.0	119.5	R/H/DL	-	-	-	-	-	-	-	
1680 x 1050/60	1680 x 1050	65.3	60.0	146.3	R/H/DL	-	-	-	-	-	-	-	
1920 x 1080/50	1920 x 1080	55.6	49.9	141.5	R/H/DL	-	-	-	-	-	-	_	
1020 x 1020/60	1920 x 1080*3	66.6	59.9	138.5	R/H/DL	-	-	-	-	-	-	-	
1920 x 1080/60	1920 x 1080*4	67.2	60.0	173.0	R	-	-	-	-	-	-	-	
1920 x 1200/50	1920 x 1200	61.8	49.9	158.3	R/H/DL	-	-	-	-	-	-	-	
1000 v 1000/00	1920 x 1200*4	74.6	59.9	193.3	R	-	-	-	-	-	-	-	
1920 x 1200/60	1920 x 1200*3	74.0	60.0	154.0	R/H/DL	1	1	1	1	1	1	1	

\*1 Signal with 🗸 in the plug and play column is a signal described in the EDID (extended display identification data) of the projector. The signal that does not have 🗸 in the plug and play column can also be input if it is described in the format column. The resolution may not be selected in the computer even if the projector is compatible for the signal that does not have  $\checkmark$  in the plug and play column.

\*2 Pixel-Repetition signal (dot clock frequency 27.0 MHz) only
\*3 VESA CVT-RB (Reduced Blanking)-compliant

\*4 Samples the pixels in the image processing circuit and projects the image.

\*5 The signal with 1/1.001x vertical scanning frequency is also supported.

\*6 YP<sub>B</sub>P<sub>R</sub> 4:2:0 format only

#### Note

• A signal with a different resolution is converted to the number of display dots. The number of display dots is as follows. -1920 x 1200

• The "i" at the end of the resolution indicates an interlaced signal.

• When interlaced signals are connected, flickering may occur on the projected image.

• Even if it is the signal listed in the list of compatible signals, it may not be displayed by the projector if the video signal is recorded in a special format.