## Panasonic ideas for life



[^0]
## Specifications

## Main unit

Power supply
Power consumption

| DLPTM chip | Panel size <br> Display method <br> Pixels |
| :--- | :--- |
| Lens |  |
| Throw ratio |  |
| Light source |  |
| Screen size |  |
| Brightness*3 |  |
| Center-to-corner uniformity*3 |  |
| Contrast*3 |  |
| Resolution |  |

Scanning frequency
HDMI/DVI-I (digital) DVI-I (analog)/RGB YPвPr (YCвСR)

Optical axis shift
Keystone correction range
Installation
Terminals
HDMI IN

DVI-I IN
Digital

R, G, B
R: $0.7 \mathrm{Vp}-\mathrm{p}, 75$ ohms,
G: $0.7 \mathrm{Vp}-\mathrm{p}$ (G: $1.0 \mathrm{Vp-p}$ for sync on G ), 75 ohms,
B: $0.7 \mathrm{Vp}-\mathrm{p}, 75$ ohms
HD/VD, SYNC: TTL, high impedance, positive/negative automatic NOTE: HD/SYNC, and VD terminals do not accept tri-level sync signals.


COMPUTER (RGB) IN D-sub HD 15-pin (female) $\times 1$
R, G, B
R: $0.7 \mathrm{Vp}-\mathrm{p}, 75$ ohms,
G: $0.7 \mathrm{Vp}-\mathrm{p}(\mathrm{G}: 1.0 \mathrm{Vp}-\mathrm{p}$ for sync on G$), 75$ ohms,
B: $0.7 \mathrm{Vp}-\mathrm{p}, 75$ ohms
HD/VD, SYNC: TTL, high impedance, positive/negative automatic
NOTE: HD/SYNC, and VD terminals do not accept tri-level sync signals.
 VIDEO IN RCA pin $\times 1,1.0 \mathrm{Vp}-\mathrm{p}, 75 \mathrm{ohms}$
AUDIO IN
AUDIO OUT
SERIAL IN
LAN / DIGITAL LINK

3D SYNC OUT
Power cord length
Cabinet materials
Dimensions ( $\mathrm{W} \times \mathrm{H} \times \mathrm{D}$ )

Weight*6
Operation noise*3

Operating temperature
Operating humidity
M3 (L, R) $\times 1,0.5 \mathrm{Vrms}$
M3 (L, R) $\times 1$ (monitor out: $0-1.8 \mathrm{Vrms}$, variable)
D-sub 9-pin (female) $\times 1$ for external control (RS-232C compliant) RJ-45 $\times 1$ for network and DIGITAL LINK (video/audio/network/serial control) connection, 100Base-TX, compatible with PJLink ${ }^{\text {TM }}$,

HDCP compatible, Deep Color compatible,
480p (525p), 576p (625p), 720 (750)/60p, 720 (750)/50p, 1080
(1125)/60i, 1080 (1125)/50i, 1080 (1125)/25p, 1080 (1125)/24p, 1080
(1125)/24sF, 1080 (1125)/30p, 1080 (1125)/60p, 1080 (1125)/50p,

VGA $(640 \times 480)-$ WUXGA ${ }^{* 4}(1,920 \times 1,200)$, compatible with non-
interlaced signals only, dot clock: $25-162 \mathrm{MHz}$
Mini DIN 3-pin $\times 1$, for 3D transmitter connection
3.0 m ( 9 ft 10 in )

Molded plastic
$455 \times 137^{* 5} \times 415 \mathrm{~mm}$
(17-29/32 $\times 5-13 / 32^{* 5} \times 16-11 / 32$ inches) (lens included)
Approx. 11.0 kg ( 24.3 lbs )
35 dB (LIGHT SOURCE MODE: NORMAL),
29 dB (LIGHt SOURCE MODE: LOW)
$0-45^{\circ} \mathrm{C}\left(32-113^{\circ} \mathrm{F}\right)^{* 7}$
20\%-80\% (no condensation)

## Wireless remote control unit

Power supply
Operation range*8
Dimensions ( $\mathrm{W} \times \mathrm{H} \times \mathrm{D}$ )
Weight
3 V DC (R6/LR6/AA type battery $\times 2$ )
Approx. $15 \mathrm{~m}(49 \mathrm{ft} 3 \mathrm{in})$ when operated from directly in front of the signal receptor
$48 \times 163 \times 24.5 \mathrm{~mm}(1-13 / 32 \times 6-5 / 8 \times 31 / 32$ inches $)$
Approx. 117 g ( 4.1 oz ) (including batteries)

## Supplied accessories

Power cord with security lock ( $\times 1$ ) (Power cord $\times 2$ for PT-RW430EA) Wireless remote control unit ( $\times 1$ )
Batteries for remote control (R6/LR6/AA type $\times 2$ )
Software CD-ROM (Logo Transfer Software, Multi Projector Monitoring \& Control Software) (× 1)

## Optional accessories

Digital Interface box
Ceiling mount bracket

Portrait mode mount bracket

## ET-YFB100G

ET-PKR100H (for high ceilings)
ET-PKR100S (for low ceilings)
ET-PKR100P

[^1]
## Dimensions




## Terminals



1 LAN / DIGITAL LINK connector
HDMI input
3 DVI-I input
4 Computer input
5 Video input
6 Audio input
7 Audio output
8 Serial input
9 3D SYNC output

## Standard setting-up position



NOTE:
Illustrations show the projector installed using optional ceiling mount bracket ET-PKR100H.

This illustration is not drawn to scale.

* Adjustable in 40 mm (1-9/16 in) steps.


Caution:

- All construction work should be done by a qualified technician.
- When mounting to the ceiling, use the ceiling mount bracket. Also, to prevent the projector from dropping, be sure to attach the wire that is included with the ceiling mount bracket.

Projection distance for $16: 10$ aspect ratio screen


NOTE:

- The value for $L$ (distance to screen) varies slightly within $\pm 5 \%$ depending on the zoom lens characteristics.
- The zoom lens characteristics may cause slight image distortion.
- When vertical keystone correction is used, the image is corrected in the direction that reduces its projected size.
- The brightness varies depending on the zoom setting.

Projection distance for 16:9 aspect ratio screen

| Projection size [diagonal] [m] [in] | Projection distance [L] |  |  |  | Height from the edge of screen to center of lens [H] |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Min [wide] |  | Max [telephoto] |  |  |  |
| 1.02 / 40 | 1.3 | (4.4) | 2.7 | (8.9) | -0.05-0.48 | $(-0.2-1.6)$ |
| 1.27 / 50 | 1.7 | (5.5) | 3.4 | (11.2) | -0.06-0.60 | $(-0.2-2.0)$ |
| 1.52 / 60 | 2.0 | (6.6) | 4.1 | (13.4) | -0.08-0.71 | $(-0.2-2.3)$ |
| 1.78 / 70 | 2.4 | (7.8) | 4.8 | (15.7) | -0.09-0.83 | $(-0.3-2.7)$ |
| 2.03 / 80 | 2.7 | (8.9) | 5.5 | (17.9) | -0.10-0.95 | $(-0.3-3.1)$ |
| 2.29 / 90 | 3.1 | (10.0) | 6.2 | (20.2) | -0.11-1.07 | $(-0.4-3.5)$ |
| 2.54 / 100 | 3.4 | (11.2) | 6.8 | (22.4) | -0.13-1.19 | $(-0.4-3.9)$ |
| 3.05 / 120 | 4.1 | (13.5) | 8.2 | (27.0) | -0.15-1.43 | $(-0.5-4.7)$ |
| 3.81 / 150 | 5.1 | (16.9) | 10.3 | (33.7) | -0.19-1.79 | $(-0.6-5.9)$ |
| 5.08 / 200 | 6.9 | (22.5) | 13.7 | (45.0) | -0.25-2.38 | $(-0.8-7.8)$ |
| 6.35 / 250 | 8.6 | (28.2) | 17.2 | (56.3) | -0.31-2.98 | $(-1.0-9.8)$ |
| 7.62 / 300 | 10.3 | (33.9) | 20.6 | (67.6) | -0.37-3.57 | $(-1.2-11.7)$ |

NOTE:

- The value for L (distance to screen) varies slightly within $\pm 5 \%$ depending on the zoom lens characteristics.
- The zoom lens characteristics may cause slight image distortion.
- When vertical keystone correction is used, the image is corrected in the direction that reduces its projected size.
- The brightness varies depending on the zoom setting.


## Calculation of the projection distance

For a screen size different from the above, use the equation below to calculate the projection distance.

Aspect ratio 16:10

| minimum | $L(m)=$ (diagonal screen size in inches) $\times 0.0336-0.0542$ |
| :--- | :--- |
| maximum | $L(m)=$ (diagonal screen size in inches) $\times 0.0670-0.0407$ |

Aspect ratio 16:9
minimum $\quad L(m)=$ (diagonal screen size in inches) $\times 0.0346-0.0542$
maximum $\quad L(m)=$ (diagonal screen size in inches) $\times 0.0688-0.0407$

## NOTE:

Distances calculated with the above equations will include a slight error.

## Shift range

Optical axis shift function allows to shift the position of a projected image as shown below.

## - Floor mount



- Ceiling mount



## Installable angle

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

## - Vertical direction

The projector may be installed at a vertical angle of $360^{\circ}$.


## - Horizontal direction

The projector may be installed at a horizontal angle of $\pm 210^{\circ}$.


## List of compatible signals

The signals that can be input to this projector are shown in the table below. Horizontal scanning frequencies of 15 kHz to 100 kHz , vertical scanning frequencies of 24 Hz to 120 Hz , and a dot clock of 162 MHz maximum can be input.

NOTE: The native resolution of this projector is $1,280 \times 800$ pixels. If the display resolution of the input signal is different from the native resolution, image compression or expansion will be used to convert the input signal to a level within the native resolution.


1. The " i " appearing after the resolution indicates an interlaced signal.
2. Compliant with VESA CVT-RB (Coordinated Video Timing-Reduced Blanking).

NOTE: Compatible signals for DIGITAL LINK input are the same as compatible signals for HDMI input.

## List of compatible 3D signals

The 3D signals that can be input to this projector are shown in the table below.

| Display mode | Display resolution (dots) | Scanning frequency |  | Dot clock frequency (MHz) | HDMI |  |  | DVI-I |  |  | Computer <br> Frame sequential |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | H (kHz) | V <br> (Hz) |  | Frame packing | Side by side* ${ }^{*}$ | Top and bottom | Side by side* | Top and bottom | Frame sequential* ${ }^{* 2}$ |  |
| 750 (720)p/60p | $1280 \times 720$ | 45.0 | 60.0 | 74.3 | $\downarrow^{* 3}$ | $\checkmark$ | $\downarrow^{* 3}$ | $(\sqrt{ })^{* 4}$ | $(\sqrt{ })^{* 5}$ | - | - |
| 750 (720)p/50p |  | 37.5 | 50.0 |  | $\downarrow^{* 3}$ | $(\sqrt{ })^{* 4}$ | $\downarrow^{* 3}$ | $(\sqrt{ })^{* 4}$ | $(\sqrt{ })^{* 5}$ | - | - |
| 1125 (1080)/60i | $1920 \times 1080 i$ | 33.8 | 60.0 |  | - | $\downarrow^{* 3}$ | - | $(\sqrt{ })^{* 4}$ | - | - | - |
| 1125 (1080)/50i |  | 28.1 | 50.0 |  | - | $\downarrow^{* 3}$ | - | $(\sqrt{ })^{* 4}$ | - | - | - |
| 1125 (1080)/24p | $1920 \times 1080$ | 27.0 | 24.0 |  | $\downarrow^{* 3}$ | $\checkmark$ | $\downarrow^{* 3}$ | $(\sqrt{ })^{* 4}$ | $(\sqrt{ })^{* 5}$ | - | - |
| 1125 (1080)/60p | $1920 \times 1080$ | 67.5 | 60.0 | 148.5 | - | $\checkmark$ | - | $(\sqrt{ })^{* 4}$ | - | - | - |
| 1125 (1080)/50p |  | 56.3 | 50.0 |  | - | $(\sqrt{ })^{* 4}$ | - | $(\sqrt{ })^{* 4}$ | - | - | - |
| XGA | $1024 \times 768$ | 80.0 | 100.0 | 105.0 | - | - | - | - | - | $(\sqrt{ })^{* 6}$ | $(\sqrt{ })^{* 6}$ |
|  |  | 99.0 | 119.8 | 137.8 | - | - | - | - | - | $(\sqrt{ })^{* 6}$ | $(\sqrt{ })^{* 6}$ |
| $1280 \times 720$ | $1280 \times 720$ | 92.6 | 120.0 | 161.6 | - | - | - | - | - | $(\sqrt{ })^{* 6}$ | $(\sqrt{ })^{* 6}$ |

*1 Only DVI digital signals are compatible.
*2 DVI digital signals and DVI analog signals are compatible.
*3 A 3D mandatory format for the HDMI standard.
*4 3D images can be displayed by setting the "3D INPUT FORMAT" to "SIDE BY SIDE."
*5 3D images can be displayed by setting the "3D INPUT FORMAT" to "TOP AND BOTTOM."
*6 3D images can be displayed by setting the "3D INPUT FORMAT" to "FRAME SEQUENTIAL."
NOTE: Compatible 3D signals for DIGITAL LINK input are the same as compatible signals for HDMI input.

## Serial connector

The serial connector complies with RS-232C. To control the projector from a personal computer, commands must be input through communication software, based on the format and satisfying the communication conditions shown below.

Pin assignments and signal names


D-sub 9-pin (female) Serial input

## Communication conditions (factory setting)

| Signal level | RS-232C-compliant |
| :--- | :--- |
| Synchronization method | Start-stop synchronization |
| Baud rate | 9,600 bps |
| Parity | None |
| Character length | 8 bits |
| Stop bit | 1 bit |
| X parameter | None |
| S parameter | None |

DLP ${ }^{\text {TM }}$ Projectors PT-RW430K/RW430W

## Basic format

Transmission from the computer begins with STX, then the ID, command, parameter, and ETX are sent in this order. Add parameters according to the details of control.


## CAUTION

- It may not be possible that responses would delay or commands cannot be executed when commands are sent soon after the light source is turned on. If this occurs, wait for 60 seconds, then try sending or receiving again.
- When sending multiple commands, be sure to wait for at least 0.5 second after receiving a response from the projector before sending the next command.
- Additional time is sometimes required for response due to processing inside the projector. Set the time-out period for command response to 10 seconds or more.
- When using two or more units, set different IDs for each unit.

Cable specifications

| Projector | NC | NC | PC (DTE) |
| :---: | :---: | :---: | :---: |
| 1 |  |  | 1 |
| 2 |  |  | 2 |
| 3 |  |  | 3 |
| 4 | NC | NC | 4 |
| 5 |  |  | 5 |
| 6 | NC | NC | 6 |
| 7 |  |  | 7 |
| 8 |  |  | 8 |
| 9 | NC | NC | 9 |

## Control commands

| Command: Parameter | Function |  | Callback |
| :---: | :---: | :---: | :---: |
| PON | POWER (STANDBY) | On | PON |
| POF |  | Off | POF |
| IIS: DL1 | INPUT SELECT | DIGITAL LINK | IIS: DL1 |
| IIS:HD1 |  | HDMI | IIS:HD1 |
| IIS:DVI |  | DVI | IIS:DVI |
| IIS:RG1 |  | COMPUTER | IIS:RG1 |
| IIS:VID |  | VIDEO | IIS:VID |
| IIS: DL1:HD1 | When DIGITAL LINK input is selected and input of the digital interface box ET-YFB100G is changed as well. | HDMI 1 | IIS:DL1:HD1 |
| IIS: DL1:HD2 |  | HDMI 2 | IIS:DL1:HD2 |
| IIS: DL1:PC1 |  | COMPUTER 1 | IIS:DL1: PC1 |
| IIS: DL1:PC2 |  | COMPUTER 2 | IIS:DL1:PC2 |
| IIS: DL1:VID |  | VIDEO | IIS:DL1:VID |
| IIS: DL1:SVD |  | S-VIDEO | IIS:DL1:SVD |
| OSH: 0 | AV MUTE | Off | OSH: 0 |
| OSH: 1 |  | On | OSH: 1 |
| OFZ:0 | FREEZE | Off | OFZ: 0 |
| OFZ:1 |  | On | OFZ:1 |
| OAS | AUTO SETUP |  | OAS |
| OLP:* | LIGHT SOURCE POWER | Normal | OLP: 0 |
| OLP:* |  | Eco Save 1 | OLP: 6 |
| OLP:* |  | Eco Save 2 | OLP: 7 |
| OLP:* |  | Low | OLP: 1 |
| VPM: NAT | PICTURE MODE | Natural | VPM: NAT |
| VPM:STD |  | Standard | VPM:STD |
| VPM: DYN |  | Dynamic | VPM: DYN |
| VPM:CIN |  | Cinema | VPM:CIN |
| VPM: GRA |  | Graphic | VPM: GRA |
| VPM:DIC |  | DICOM | VPM:DIC |
| VPM: 709 |  | Rec. 709 | VPM: 709 |
| OTE: 1 | COLOR TEMPERATURE | Middle | OTE: 1 |
| OTE:2 |  | High | OTE:2 |
| OTE:4 |  | User | OTE:4 |
| OTE: 10 |  | Default | OTE:10 |
| TSD: y 1 y 2 y 3 y 4 m 1 m 2 d 1 d 2 w | DATE | Date setting | TSD: y 1 y 2 y 3 y 4 m 1 m 2 d 1 d 2 w |
| TST: h1h2m1m2s1s2 | TIME | Time setting | TST: 1 1h2m1m2s1s2 |
| OOS: 0 | ON SCREEN | On-screen display off | OOS: 0 |
| OOS: 1 |  | On-screen display on | OOS: 1 |

* When a command that cannot be executed during standby mode is sent, the projector will send an ER401 command in reply.

DLP ${ }^{\text {TM }}$ Projectors PT-RW430K/RW430W

## Status request commands

| Command:Parameter | Function | Callback | Description |
| :---: | :---: | :---: | :---: |
| QPW | Standby power status | 000 | Off |
|  |  | 001 | On |
| QIN | Input signal status | DL1 | DIGITAL LINK |
|  |  | HD1 | HDMI |
|  |  | DVI | DVI |
|  |  | RG1 | RGB 1 |
|  |  | RG2 | RGB 2 |
|  |  | VID | VIDEO |
|  | Input signal status of the digital interface box ET-YFB100G when DIGITAL LINK input is selected. | DL1*HD1 | HDMI 1 |
|  |  | DL1*HD2 | HDMI 2 |
|  |  | DL1*PC1 | COMPUTER 1 |
|  |  | DL1*PC2 | COMPUTER 2 |
|  |  | DL1*VID | VIDEO |
|  |  | DL1*SVD | S-VIDE0 |
| QSH | AV mute status | 0 | Off |
|  |  | 1 | On |
| QFZ | Freeze function status | 0 | Off |
|  |  | 1 | On |
| Qos | On-screen display status | 0 | Off |
|  |  | 1 | On |
| QST | Projector run time | p1p 2p 3p 4 p 5 | 00000h-99999h |
| QLP | Light source power mode status | OLP: 0 | Normal |
|  |  | OLP: 6 | Eco Save 1 |
|  |  | OLP: 7 | Eco Save 2 |
|  |  | OLP: 1 | Low |
| QPM | Picture mode status | NAT | Natural |
|  |  | STD | Standard |
|  |  | DYN | Dynamic |
|  |  | CIN | Cinema |
|  |  | GRA | Graphic |
|  |  | DIC | DICOM |
|  |  | 709 | Rec. 709 |
| QTM: 0 | Temperature status | p1p2p3p4/p5p6p7p8 (*) | Intake |
| QTM:2 |  |  | Optical module |
| QTM:3 |  |  | Inside |
| QTM: 4 |  |  | Light source (Red) |
| QTM:5 |  |  | Light source (Green) |
| QTM: 6 |  |  | Light source (Blue) |
| QGD | Date setting status | $\mathrm{y}^{1} \mathrm{y} 2 \mathrm{y} 3 \mathrm{y} 4 \mathrm{~m} 1 \mathrm{~m} 2 \mathrm{~d} 1 \mathrm{~d} 2 \mathrm{w}$ | yyyymmdd (day of week) (*2) |
| QGT | Time setting status | h1h2m1m2s1s2 | hhmmss |

*1 p1p2p3p4: Celsius ( ${ }^{\circ} \mathrm{C}$ ), p5p6p7p8: Fahrenheit ( ${ }^{\circ} \mathrm{F}$ )
*2 Day of week: Monday $=1$, Tuesday $=2, \ldots$ Sunday $=7$
NOTE: If a wrong command is received, the projector will send an ER401 or ER402 command to the computer.

## Command example

To set the on-screen display off, send the command as shown below.


NOTE: When sending commands without parameters, a colon (:) is not necessary.

## Notes on projector placement and operation

Please observe the following precautions for projector placement and operation.

1. Never place objects on top of the projector while it is operating.
2. Make sure there is an unobstructed space of 500 mm ( 1 foot 8 inches) or more around the projector's exhaust openings.
3. Do not stack projector units directly on top of one another for the purpose of multiple (stacked) projection. When stacking projector units, be sure to provide the amount of space indicated below between them. These space requirements also apply to installations where only one projector unit is operating at one time and the other unit is used as a backup.
4. Make sure that nothing blocks the projector's air intake and exhaust openings. Also, install the projector so that cool or hot air from other air conditioning equipment does not flow directly toward the projector's air intake or exhaust openings.
5. Do not install the projector in an enclosed space. If it is necessary to install it in an enclosed space, add a separate ventilation system. If ventilation is insufficient, hot air will accumulate at the intake opening. This may cause the projector's protective circuit to interrupt projector operation.
6. If the projector is placed in a box, ensure that the projector's intake and exhaust openings are not blocked. Take particular care to ensure that hot air from the exhaust openings is not sucked into the intake openings.
7. To install and use the projector via a method that does not use the adjustable feet in a floor standing installation, fix the projector using the four screw holes for ceiling mounting. (Screw diameter: M4, tapping depth inside the set: 10 mm , torque: $1.25 \pm 0.2 \mathrm{~N} \cdot \mathrm{~m}$ )


Do not stack projector units directly on top of one another.

## Direction of air intake and exhaust



[^2]
[^0]:    Product Number : PT -RW430K/RW430W
    Product Name: $\quad$ DLP $^{T M}$ Projector

[^1]:    Weights and dimensions shown are approximate. Specifications and appearance are subject to change without notice.
    *1 In STANDARD/GRAPHIC picture mode. Measured based on the power consumption rate and a measurement method for the TV receiver.
    *2 When the standby mode is set to eco, network functions such as power on over the LAN network will not operate. Also, only certain commands can be received for external control using the serial terminal.
    *3 Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards.
    *4 WUXGA resolution is supported only when the signals are compliant with VESA CVT-RB (Coordinated Video Timing-Reduced Blanking).
    *5 With legs at shortest position.
    *6 Average value. May differ depending on the actual unit.
    $* 7 \quad 0-40^{\circ} \mathrm{C}\left(32-104{ }^{\circ} \mathrm{F}\right)$ between $1,400 \mathrm{~m}$ and $2,700 \mathrm{~m}(4,593 \mathrm{ft}$ and $8,858 \mathrm{ft})$ above sea level. If the ambient temperature exceeds $35{ }^{\circ} \mathrm{C}\left(95{ }^{\circ} \mathrm{F}\right)$, the light output may be reduced to protect the projector.
    *8 Operation range differs depending on environments.

[^2]:    Weights and dimensions shown are approximate. Specifications and appearance are subject to change without notice. Product availability differs depending on region and country. This product may be subject to export control regulations.

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