Specifications

Model name	CP-TW3005	CP-TW2505	CP-AW3005	CP-AW2505	CP-AX3505	CP-AX3005	CP-AX2505
Display system	3LCD						
Display device — Size of effective display area	0.59", aspect ratio 16 : 10				0.63", aspect ratio 4 : 3		
Display device — Number of pixels	1,024,000 pixels (1280 horizontal x 800 vertical)				786,432 pixels (1024 horizontal x 768 vertical)		
Lens — Zoom	Digital zoom: x 1.35						
Lens — Focus	Powered						
Light source	250W	225W	250W	225W	250W		225W
Screen size	60 - 100 inch						
Light output(Brightness)	3,300lm	2,700lm	3,300lm	2,700lm	3,600lm	3,300lm	2,700lm
Contrast ratio	10,000 : 1 (PRESENTATION mode)						
Speaker	16W x 1 mono						
Displayable scanning frequency — Horizontal	15 - 106 kHz						
Displayable scanning frequency — Vertical	50 - 120 Hz						
Terminals — COMPUTER IN 1	Mini-D-sub 15-pin connector x 1						
Terminals — COMPUTER IN 2 / MONITOR OUT	Mini-D-sub 15-pin connector x 1						
Terminals — VIDEO	Composite video (RCA connector) x 1						
Terminals — HDMI IN	HDMI connector x 2 (HDCP compliant)						
Terminals — MHL IN	HDMI connector x 1 (HDCP compliant) Shared with HDMI1 input terminal				-		
Terminals — AUDIO IN	3.5mm stereo mini connector x 1, RCA connector L/R x 1						
Terminals — AUDIO OUT	3.5mm stereo mini connector x 1						
Terminals — Microphone Input	3.5mm mono mini connector x 1						
Terminals — CONTROL(RS-232C)	D-sub 9-pin connector x 1						
Terminals — LAN	RJ45 connector x 1						
Terminals — USB-A	USB type A x 2 (PC less Presentation or wireless adapter)						
Terminals — USB-B	USB type B x 1 (Interactive Function, USB mouse control and USB Display)	USB type B x 1 (USB Display and USB mouse control)					
Operating temperature	0 – 40℃ 35 – 40℃ (The brightness of lamp is reduced automatically.)						
Operating humidity(RH)	20 - 80%RH (non-condensing)						
Power requirements	AC 100-120V (50/60Hz) : 3.8A AC 220-240V (50/60Hz) : 1.9A	AC 100-120V (50/60Hz) : 3.5A AC 220-240V (50/60Hz) : 1.7A	AC 100-120V (50/60Hz) : 3.7A AC 220-240V (50/60Hz) : 1.8A	AC 100-120V (50/60Hz) : 3.3A AC 220-240V (50/60Hz) : 1.6A	AC 100-120V (50/60Hz) : 3.7A AC 220-240V (50/60Hz) : 1.8A		AC 100-120V (50/60Hz) : 3.3A AC 220-240V (50/60Hz) : 1.6A
Maximum power consumption	AC 100-120V:380W AC 220-240V:360W	AC 100-120V:340W AC 220-240V:330W	AC 100-120V:360W AC 220-240V:350W	AC 100-120V:330W AC 220-240V:310W	AC 100-120V:360W AC 220-240V:350W		AC 100-120V:330W AC 220-240V:310W
Standby mode power consumption	0.35W at saving mode						
Standard outside dimensions (WxHxD)	377mm x 136mm x 360mm (14.8" x 5.4" x 14.2") (Excluding protrusions)						
Weight	Approx. 4.5kg (9.9 lbs.)				Approx. 4.3kg (9.5 lbs.)		
Accessories	Remote control, AA batteries, Power cord, Computer cable, Cable cover, Adapter cover, User's manuals, Security label, Application CD, USB cable, Interactive Pen, AA batteries, Pen tips, Application DVD		Remote control, AA batteries, Power cord, Computer cable, Cable cover, Adapter cover, User's manuals, Security label, Application CD				
Optional parts — Lamp	DT01411	DT01511	DT01411	DT01511	DT01411		DT01511
Optional parts — Filter set	UX37191						
Optional parts — Mounting accessories	HAS-AW100 (Bracket for ceiling mount), HAS-203L (Fixing adaptor for low ceilings), HAS-P100 (Fixing adaptor for high ceilings), HAS-WM03 (Wall mount unit), HAS-WM05 (Wall mount unit)						
Optional parts — Tabletop use kit	TT-03						
Optional parts — USB wireless adapter	USB-WL-11N						
Optional parts — Finger Touch Unit	FT-01B				-		

Dimensions

360mm(14.2")   377mm(14.8")   136mm (5.4")

Projection Distance

On a horizontal surface

Suspended from the ceiling

CP-AX3505,CP-AX3005,CP-AX2505 (1,024 x 768) (±8%)

Screen size(diagonal)		Projection distance				Screen height			
a		b1		b2		c1		c2	
type (inch)	m	m	inch	m	inch	m	inch	m	inch
60	1.5	0.104	4.1	0.385	15.2	0.224	8.8	1.138	44.8
70	1.8	0.170	6.7	0.451	17.8	0.247	9.7	1.314	51.7
80	2.0	0.236	9.3	0.517	20.4	0.270	10.6	1.489	58.6
90	2.3	0.302	11.9	0.583	23.0	0.293	11.5	1.664	65.5
100	2.5	0.368	14.5	0.649	25.6	0.315	12.4	1.839	72.4

CP-TW3005,CP-TW2505,CP-AW3005,CP-AW2505 (1,280 x 800) (±8%)

Screen size(diagonal)		Projection distance				Screen height			
a		b1		b2		c1		c2	
type (inch)	m	m	inch	m	inch	m	inch	m	inch
60	1.5	0.128	5.0	0.409	16.1	0.313	12.3	1.121	44.1
70	1.8	0.198	7.8	0.479	18.9	0.351	13.8	1.293	50.9
80	2.0	0.268	10.5	0.549	21.6	0.388	15.3	1.465	57.7
90	2.3	0.338	13.3	0.619	24.4	0.426	16.8	1.638	64.5
100	2.5	0.408	16.1	0.689	27.1	0.464	18.3	1.810	71.3

Terminals

CP-TW3005, CP-TW2505

CONTROL
USB-B
USB-A
LAN
AUDIO IN 2
VIDEO
HDMI1/MHL
HDMI 2
MIC
COMPUTER IN 1
AUDIO IN 1
AUDIO OUT
COMPUTER IN 2 / MONITOR OUT

CP-AW3005,CP-AW2505,CP-AX3505,CP-AX3005,CP-AX2505

CONTROL
USB-B
USB-A
LAN
AUDIO IN 2
VIDEO
HDMI1
HDMI 2
MIC
COMPUTER IN 1
AUDIO IN 1
AUDIO OUT
COMPUTER IN 2 / MONITOR OUT

Environment

▶ **Compliance with EU Directive RoHS[1]**
▶ **Reduction of resin usage in production**
 Use of hot runners in molds for making upper housing in order to reduce mill ends.
▶ **Reduction of CO2 emissions**
 Carton volume has been cut down to 80%[2], reducing CO_2 emissions during transport.
▶ **Power saving mode engaged during standby**
▶ **Eco mode**
 Eco mode provides power saving.

[1]
RoHS is the acronym of "Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment".

[2]
Compared to Hitachi CP-A200 ultra short throw projector on the basis of one carton box.

—Design and specifications are subject to change without notice.
• The projected images and comparison photos in this catalog are simulations.
• LCD panels, polarizers and other optical components and cooling fans may need replacement after prolonged usage. For more details, please consult a Hitachi sales representative.
• Do not use in places where there is a lot of water, dampness, steam, dust, soot or tobacco smoke. This may result in fire or malfunction.
• Optical components (lamp, LCD panel, polarizing plate, PBS [polarizer beam splitter]) have limited service lives. They must be repaired or replaced if they are used for a long period of time.
• These projectors use a mercury lamp with high internal pressure. Because of its properties, this lamp may burst with a loud noise or burn out if struck or after it has been used for a period of time. The time until it bursts or burns out varies greatly according to differences between lamps and usage conditions. Turning the lamp's power on and off frequently shortens its service life.
• Optical components other than the lamp: If the projector is used for six hours or more per day, they may need to be replaced in less than a year.
• LCD panel: If the projector is used continuously for six hours or more, its replacement cycle may be shortened.
• Do not turn projector on again for ten minutes after shutdown. Neglect can shorten the lifetime or the lamp. During use and immediately after use, do not touch anywhere near the lamp and the vents as these parts are extremely hot.
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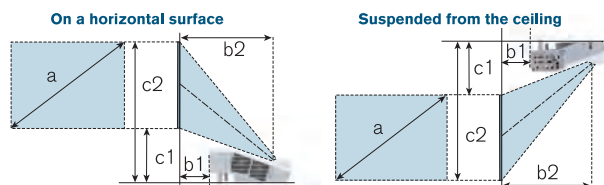

dnx pixelworks™

ImageCare

HITACHI
Inspire the Next

Ultra Short Throw LCD Projectors

Ultra short throw projectors that provide vivid images in bright classrooms and meeting rooms

*Projected images are simulations

3LCD

AMX DEVICE DISCOVERY

CRESTRON connected

Ultra short throw interactive projector
CP-TW3005 / CP-TW2505

Ultra short throw projector
CP-AW3005 / CP-AW2505
CP-AX3505 / CP-AX3005
CP-AX2505

Project visual beauty in real time.
Technology that delivers details in bright environments.

Hitachi's original image processing technology enhances high-definition video in real time. Using this technology, you can enjoy high-definition images without losing the color information of the original image, and project high-definition video in classrooms, lecture halls, large meeting rooms, and other bright spaces.
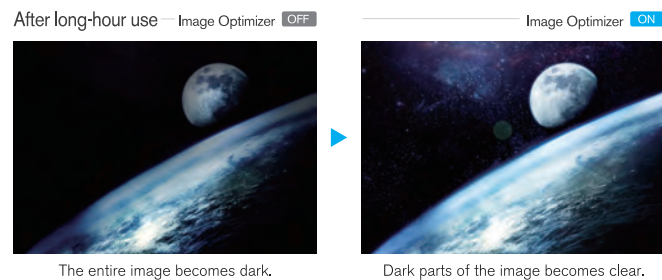
HITACHI

LINE UP * Local availability may be limited.

T series
Ultra Short Throw

CP-TW3005
WXGA 3,300lm

CP-TW2505
WXGA 2,700lm

A series
Ultra Short Throw

CP-AW3005
WXGA 3,300lm

CP-AW2505
WXGA 2,700lm

CP-AX3505
XGA 3,600lm

CP-AX3005
XGA 3,300lm

CP-AX2505
XGA 2,700lm

ACCENTUALIZER

Hitachi original technology makes pictures look more real by enhancing (1) Shade, (2) Sharpness and (3) Gloss to make pictures as clear as pictures on a flat-panel device. You can also adjust the effects by three levels according to your surroundings so that the colors of projected images are the actual colors of the objects they represent.

ACCENTUALIZER OFF

ACCENTUALIZER ON

Original image

Increased Shade, Sharpness, and Gloss

HDCR (High Dynamic Contrast Range)

When average projectors are used in bright rooms, the darker colors of an image deteriorate and images become unclear.
Using this function, blurred images caused by room lighting or outside light sources are corrected, and an effect similar to increasing contrast occurs. This results in clear images even in bright rooms.
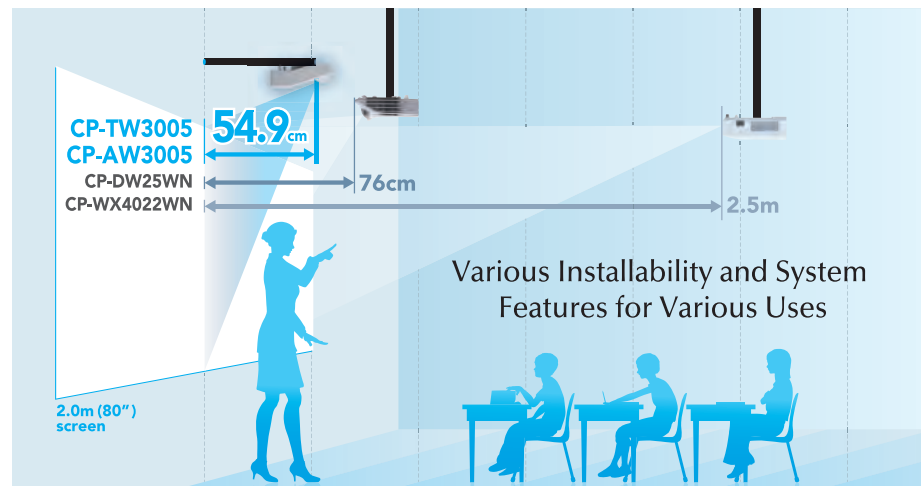
Dark room — HDCR OFF

Bright room — HDCR OFF

HDCR ON

Dark parts are obscure.

Dark parts are clear. (Distinct)

Image Optimizer

Equipped with IMAGE OPTIMIZER, Hitachi's original function that maintains visibility of an image through automatic image correction in accordance with lamp consumption.
• This function may not work properly when HDCR/ACCENTUALIZER is ON.

After long-hour use — Image Optimizer OFF

Image Optimizer ON

The entire image becomes dark.

Dark parts of the image becomes clear.

DICOM® Simulation Mode

The DICOM (Digital Imaging and Communications in Medicine) Simulation Mode projects grayscale images which approximate DICOM Part 14 specifications. This mode is ideal for viewing grayscale medical images, such as X-rays, for training and educational purposes.

The projectors have a DICOM (Digital Imaging and Communications in Medicine) Simulation Mode. This mode simulates the DICOM standard, which is a standard applicable to digital communications in medicine, and is useful for displaying medical images such as X-rays. These projectors are not medical devices and are not compliant with the DICOM standard, and neither the projector nor the DICOM Simulation Mode should be used for medical diagnosis.
* Comparison photos are simulations.

Normal Mode

DICOM Simulation Mode
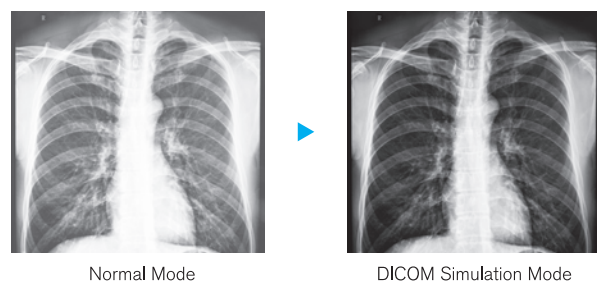
* The above images are representations of the effects and differ from actual images.

CP-TW3005 / CP-AW3005
54.9cm

CP-DW25WN / CP-WX4022WN — 76cm — 2.5m

2.0m (80") screen

### Various Installability and System Features for Various Uses

Reduced Glare and Shadows

These projectors feature Ultra Short Throw, for projecting a 2m (80inches) image from only 54.9cm (21.6inches) * onto a wall or screen. Ultra Short Throw greatly reduces glare from the projector's light source, making it easier for the teacher or presenter to see the audience. The audience also has a clearer view because the shadows of the teacher's or presenter's hands and body are minimized. The result is a better classroom or meeting room experience for everyone.

* For WXGA models. 51.7cm (20.4inches) for XGA models

Powered Focus and Perfect fit

Equipped with powered focus and Perfect fit with which the position of four corners and four sides of a projected image can be adjusted. With the remote controller at hand, you can adjust focus and the position of an image.

① Projector installation

② Focus adjustment

③ Size and Position adjustments (Perfect fit)
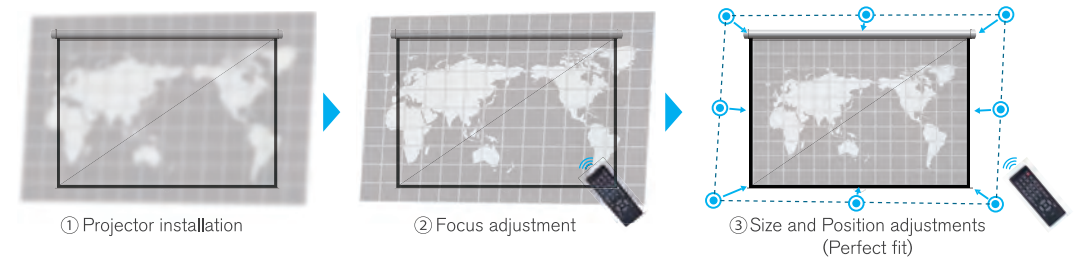
2 - HDMI & MHL*1 inputs

Equipped with 2 HDMI input terminals for the current widely-used interface.
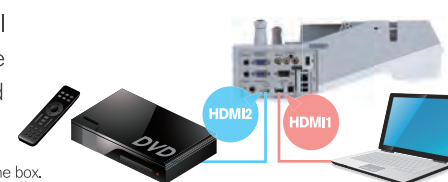
* HDMI cable is not included in the box.

HDMI2 HDMI1 DVD

Project images by connecting a smartphone or tablet that supports MHL to the projector using an MHL cable.

*1 For T series projectors only. MHL cable is not included in the box.

MHL cable

Tabletop Use (Option)

The optional tabletop use kit TT-03 allows to stand the projector vertically and a 1.5m (60")* diagonal image down onto a table.

* For WXGA models. 1.6m (63.5") for XGA models.

16W Internal Speaker

Equipped with a 16W speaker and microphone terminal that allow you to comfortably make presentations using content with sound or using a microphone.

Various Network Features

Wireless Capability (Option)

Connect a projector to a computer using the optional USB wireless adapter. The adapter supports IEEE802.11 b/g/n.

**SIMPLE ACCESS POINT mode**

INFRASTRUCTURE mode

Without an access point

With an access point

Access Point

Easy WLAN Connection

Searches available wireless networks and displays the list of SSIDs when used in Infrastructure mode. You can select an SSID to connect to from the list.

Access Point Scan List
Access Point 1
Access Point 2
Access Point 3

Access Point 1

Access Point 2

Access Point 3
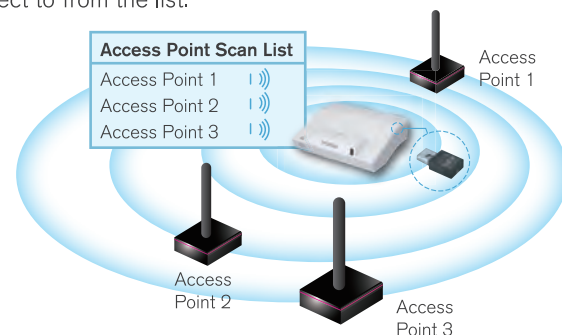
Convenient Networking

Manage and control multiple projectors over your LAN with Centralized Reporting, Scheduling, E-mail Alerts, and My Image (Image Transfer).

LAN

Administration Room
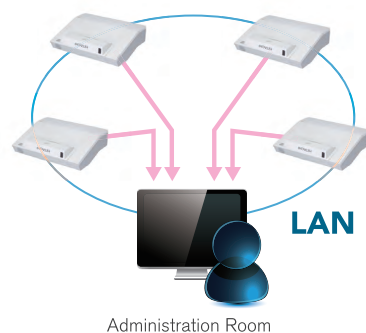
Multi Projector

You can project the same image to up to 12 projectors simultaneously. This is useful for meetings and lectures in large venues where a single screen would not be sufficient.

projector1

projector2

projector3
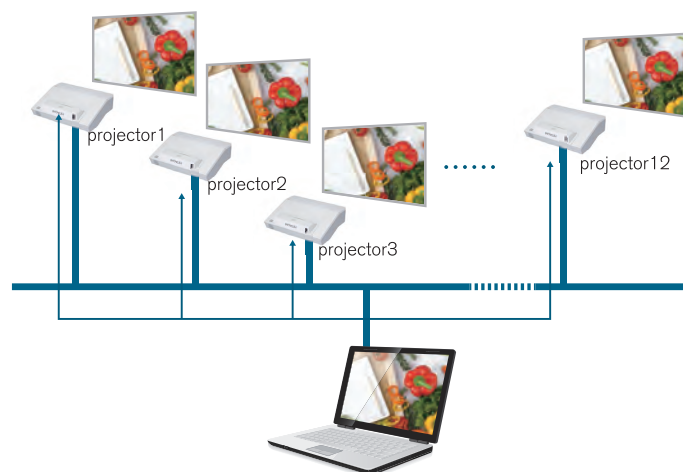
projector12

Easy Schedule Setting

You can schedule routine and special projector events, including power on, power off, input selection and other settings.

EVENT SCHEDULE
MONDAY to FRIDAY
08:00   POWER   ON
         INPUTSOURCE   COMPUTER IN 1
12:30   INPUTSOURCE   HDMI 1
17:00   POWER   OFF

Moderator Control Mode

Setting one computer from the multiple computers (up to 50) that are connected to the projector as the moderator (host) makes it possible for the moderator to project from all the computers (Clients).
* Moderator Control Mode supports LiveViewer 6 (Windows application) only.

Computer1 (Client)

Computer2 (Client)

Computer3 (Client)

Computer49 (Client)

Moderator (Host)

Projector

Smart Device Control

Plugging the optional USB wireless adapter to the projector and using the dedicated free online application developed by Hitachi, projectors can be controlled from a tablet or smartphone.

* See the Hitachi website for details http://www.hitachi.co.jp/proj/en/apps/pj_connection.html

Go Green

Saver Mode

*Image*Care

This feature developed by Hitachi reduces the projector lamp brightness and consumption power, resulting in considerable energy savings. Set the Saver mode time from 1 to 30 minutes, and if the projected image does not change in that time, Saver mode activates. Saver mode can also be activated manually.

During a presentation using the screen.

Darken the screen with the remote control while the presenter speaks.

The screen automatically turns dark when not in use during group discussions.

Intelligent Eco Mode *Image*Care

This feature developed by Hitachi automatically changes the brightness of the lamp according to the level of the input signal. Lamp brightness is reduced when a darker image is projected, and returns to normal when a brighter image is projected, eliminating unnecessary energy consumption from the lamp.

Eco Mode

Using Eco Mode reduces lamp power approximately 32% compared to 250W[1] in Normal Mode.

Normal Mode	
	250W
Eco Mode	
170W	-32%
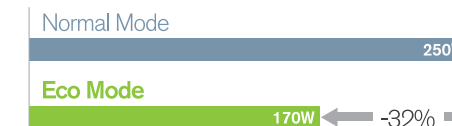
*1 Approximate 33% decrease for the 225W lamp of CP-TW2505 and CP-AW2505.
*   Lamp brightness in Eco Mode is lower compared to Normal Mode.

Saving Mode

Consumption power can be reduced to 0.35W when in standby, making it possible to reduce running costs.
* STANDBY MODE must be set to SAVING.
* Available functions during standby when SAVING is set are limited.

Ensuring High Reliability and Stability

Easy Maintenance

The lamp door and the filter cover are located on the top and the side, facilitating maintenance and replacement even when the projector is installed on the ceiling.

Hybrid Filter

The hybrid filter is composed of an unwoven cloth and a HAF (High Air Flow) filter, protecting the optics from dust, dirt, and chalk particles. The filter can last up to 4,000 hours[2] without cleaning.
*2 Varies according to usage environment.

3LCD chips with Inorganic Alignment Layers

These Hitachi 3LCD projectors incorporate three LCD panels with inorganic alignment layers that are extremely light resistant, increasing brightness and contrast ratio. They ensure smooth images and high reliability.

LCD (HTPS)

Prism
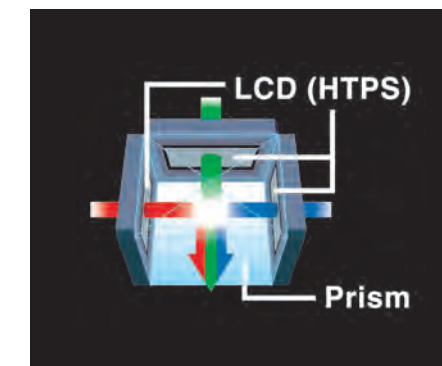
An interactive function with enhanced operability and functionality
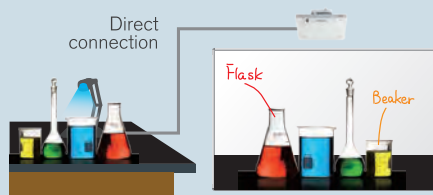
Advanced Writing/Drawing Capabilities

PC less Drawing

T Series projectors come with a built-in drawing function allowing you to directly draw and write on the projected screen without a PC.

Directly Draw on the Projected Screen

You can write and draw on images projected from connected devices such as Document camera.

Direct connection

Flask
Beaker

Save and Open Drawn Screens

You can save the image drawn on the projector screen. This enables you to easily manage what you've taught in the past.

Convenient Painter Tool

Equipped with the Pen, Eraser, Undo, Redo functions. You can also change the pen color and thickness. With the easy-to-use Painter tool bar, you can teach classes smoothly.

Variety Rich Templates

You can conveniently use the interactive function with over 100 pre-installed templates including graphs, Graphic Organizers, Plain Color, and many more.

Finger Touch (Option)

The T Series projectors incorporate the optional finger touch unit that enables the projector to detect finger touch activity on the screen area. It allows users to annotate and interact with the material presented. Instead of simply showing static images, students and teachers can interact with on screen material for hands-on interactivity that brings learning to life.

* When using the finger touch unit at bright environment, auto calibration may not be used.
* Please use the finger touch unit on a flat screen.
* The finger touch unit may not be used in locations where there is sunlight or light from an incandescent light source.

core
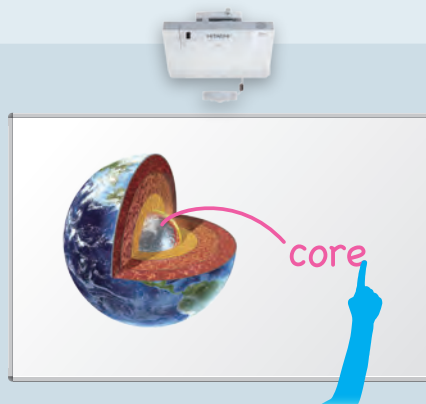
Multiple interactive pens

With up to 6 interactive pens pupils can do more than just watch - they can interact with the onscreen content. Let them enjoy providing answers, showing their understanding and becoming involved in lessons as never before.

earth

Windows multi touch

Windows® 8 / 8.1 multi touch allows users with touch enabled Windows® 8 / 8.1 systems to operate the PC directly from the interactive screen with up to 6 of pens or touches* including Windows® 8 / 8.1 gesture.
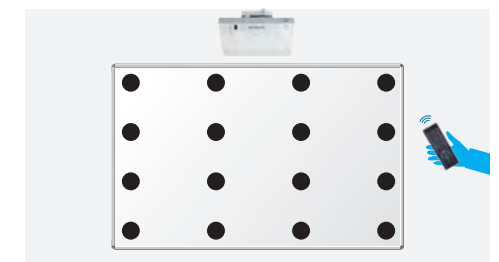
* Optional finger touch unit is required.
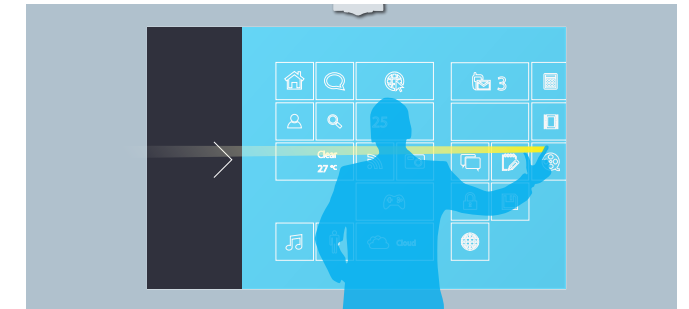
Auto Calibration

Auto calibration is completed easily and quickly with the remote control. Calibration can be performed and the interactive function can be used on both the 16 : 10 and 4 : 3 screen type.

* The image for aligning the position is displayed automatically.

Interactive Software

This product includes a drawing application that offers more sophisticated drawing functions.

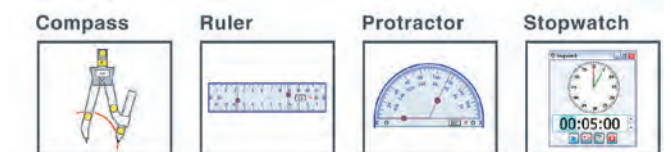### Neatly Convert Letters or Figures

You can automatically convert freehand shapes into geometric objects and handwriting into text on the projected image. These operations are easily accomplished with the interactive pen.

AB CD → ABCD

Select a Variety of Useful Tools

The interactive pen lets you operate a compass, ruler, protractor, stopwatch and other useful tools on the projected image, making lessons even easier to understand.

Compass Ruler Protractor Stopwatch