#### Specifications

					CP-A221N/CP-A221NM					
Model name		CP-AW2519N/CP-AW2519NM	CP-AW251N/CP-AW251NM							
Liquid crystal panel			silicon active-matrix TFT x 3	0.63 type (inch), 1.6cm poly						
Number of pixels			a (H1280 x V800)	786,432 pixels (H1024 x V768)						
Resolution		1280 x 800 cold	or pixels (WXGA)	1024 x 768 cold	1024 x 768 color pixels (XGA)					
Digital zoom		x1.35								
Lamp		210W UHP								
Light output (brightness)		2,500 Lumens 3,000 Lumens 2,200 Lumens								
Contrast ratio		2,000:1 (Presentation mode)								
Audio		10W								
Keystone correction		Manual Horizontal/Vertical Keystone								
Power supply		AC100-120V/AC220-240V								
Operating temperature		5-35°C/41-95°F (For interactive	5-35°C/41-95°F							
		function: 16-35°C/61-95°F)*1								
Input	Computer input	VGA, SVGA, XGA, WXGA, WXGA-	+, SXGA, SXGA+, UXGA, MAC16"							
signals	Video input	NTSC, NTSC4.43, PAL, SECAM, PAL-M, PAL-N, PAL (60Hz) 480i@60, 480p@60, 576i@50, 576p@50, 720p@50/60, 1080i@50/60, 1080p@50/60								
Input/output	Video input			CA jack x 1, Component video: via Mini-Dsub x 2						
terminals	Audio input			2, RCA jack x 2 (L/R)						
	Computer input	Analog RGB: 15-pin Mini-Dsub x 2								
	HDMI input	HDMI x 1 (HDCP compliant)								
	Audio output	RCA jack x 2 (L/R)								
	Monitor output	Analog RGB: 15-pin Mini-Dsub x 1								
	USB	USB type A x 1 for PC-less presentation, USB type B x 1 for VSB display or USB USB type B x 1 for VSB display. USB mouse control								
		USB type B x 1 (for USB display or USB								
		mouse control, and interactive function)								
	Control			1 for RS232C						
	Wired network (LAN)		15 x 1							
	Mic. input	Mono Mini jack x 1 (compatible with dynamic microphones and unbalanced signal lines)								
Agency certifications		UL/cUL, FCC Part15 class A,	UL/cUL, FCC Part15 class A, AS/NZS CISPR22 class A,							
		AS/NZS CISPR22 class A, CE, RoHS, GOST-R	CE, RoHS, GOST-R							
Dimensions (WxHxD)		345 x 102 x 303mm (13.6" x 4.0" x 11.9")	345 x 85 x 303mm (13.6" x 3.3" x 11.9")							
		[excluding protruding part, when mirror is closed.]	[excluding protruding part, when mirror is closed.]							
Weight		Approximately 4.1kg (9.0 lbs.)	Approximately 3.8kg (8.4 lbs.)							
Standard accessories*2		Remote control (Part#: HL02772) with	Remote control (Part#: HL02772) with two AA batteries,							
		two AA batteries, Power cord, Computer cable,	Power cord, Computer cable, Cable cover, User's manuals, Security label,							
		USB cable, Interactive Pen*3, two AAA batteries	Application CD, Wall mount unit and user's manual* <sup>4</sup>							
		and the tip of the pen for exchange,								
		Cable cover, User's manuals, Security label,								
		Software applications (CD x 1, DVD x 1),								
		Wall mount unit and user's manual*4, Sensor cover								
Optional acce	essories	Lamp: DT01251, Filter set: UX37191, Laser remote control: HL02651 (RC-R008), Tabletop use kit: TT-251								
* 1 16 4 10 0 00 0	the state of the s	the second second second second second second second second	tin point porfactly, places calibrate again t	a senting the state of a term at the sentence						

\*1 If the mouse cursor or drawing image does not match the actual pen tip point perfectly, please calibrate again to optimize the interactive system. \*2 Standard accessories, like power cord, vary across regions or countries. \*3 Depending on surface textures of screens or walls, etc. where images are projected, abrasion of the interactive pen tip may be accelerated, resulting in the need for pen tip exchange. \*4 Optional with CP-AW2519N/CP-AW251N/CP-A301N/CP-A221N

#### Supplied Cable Cover and Wall Mount Unit Dimensions Dimensions CP-AW251N/CP-AW251NN CP-A301N/CP-A301NM CP-A221N/CP-A221NM CP-AW2519N/ CP-AW2519NM 345mm (13.6") 345mm (13.6") CP-AW2519N/ CP-AW251N/CP-AW251NM CP-AW2519NM CP-A301N/CP-A301NM CP-A221N/CP-A221NM Cable cove 72mm (2.8") 72mm (2.8") Wall mount unit PHONE n (7.6") nm (7.6") (HAS-K250)\* 308mm (12.1") 308mm (12.1") (4.0") 130mm (5.1") 130mm (5.1") CP-AW2519N/CP-AW251N/ CP-A301N/CP-A221N. 니다 10 200

#### Optional Tabletop Use Kit Projection Distance

Tabletop use kit		CP-AW2519N/CP-AW2519NM/CP-AW251N/CP-AW251NM				CP-A301N/CP-A301NM/CP-A221N/CP-A221NM					
(TT-251)		Screen Size (16:10 Screen)	a1	a2	b1	b2	Screen Size (4:3 Screen)	a1	a2	b1	b2
Fixing clamp	b1	60 type (inch), 1.5m	0.120m (4.7")	0.426m (16.8")	0.295m (11.6")	1.102m (43.4")	60 type (inch), 1.5m	0.096m (3.8")	0.403m (15.9°)	0.281m (11.1")	1.196m (47.1")
Can be used for     tables 25 50mm	b2	70 type (inch), 1.8m	0.188m (7.4")	0.494m (19.5")	0.332m (13.1")	1.274m (50.2")	70 type (inch), 1.8m	0.161m (6.3")	0.467m (18.4°)	0.317m (12.5")	1.384m (54.5")
tables 25-50mm (1"-2") thick.		80 type (inch), 2.0m	0.256m (10.1")	0.562m (22.1")	0.369m (14.5")	1.446m (56.9")	80 type (inch), 2.0m	0.225m (8.9")	0.531m (20.9")	0.352m (13.9")	1.571m (61.9")
	b2	90 type (inch), 2.3m	0.324m (12.8")	0.631m (24.8")	0.407m (16.0")	1.618m (63.7°)	90 type (inch), 2.3m	0.289m (11.4°)	0.596m (23.4°)	0.387m (15.2")	1.759m (69.2")
	b1	100 type (inch), 2.5m	0.392m (15.4")	0.699m (27.5")	0.444m (17.5")	1.791m (70.5")	100 type (inch), 2.5m	0.353m (13.9")	0.660m (26.0°)	0.423m (16.6")	1.947m (76.6°)
				urer's recomm cifications m			1.5m - 100 type (inch)	, 2.5m. • Tole	erance ±8% (	for projection	distance a2)

#### **Consideration for the Environment**

#### Compliance with EU Directive RoHS<sup>\*1</sup>

\*1 RoHS is the acronym of "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrica and electronic equipment

#### Reduction of resin usage in production

Use of hot runners in molds for making upper housing in order to reduce mill ends.

### Reduction of CO<sub>2</sub> emissions

#### Carton volume has been cut down to 60% (CP-AW2519N/CP-AW2519NM)/ 40% (CP-AW251N/CP-AW251NM/CP-A301N/CP-A301NM/CP-A221N/ CP-A221NM)\*2, reducing CO2 emissions during transport. \*2 Compared to Hitachi CP-A100 ultra-short throw projector on the basis of one carton box

#### Power saving mode engaged Eco mode during standby

Eco mode provides power saving.

dnx

pixelworks"

#### 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 on again for ten minutes after shutdown. Neglect can shorten the lifetime of the lamp. During use and immediately after use, do not touch any where project the project or a contramy bet.

- anywhere near the lamp and the vents as these parts are extremely hot. Microsoft<sup>®</sup>, Excel<sup>®</sup>, PowerPoint<sup>®</sup>, Windows<sup>®</sup>, Windows Vista<sup>®</sup>, Internet Explorer<sup>®</sup>, DirectX<sup>®</sup>, and Windows Media<sup>®</sup> are trademarks, or registered trademarks of

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  All other trademarks are the properties of their respective ownes.
  Remote control warning: Do not look into the laser beam. Class 2 Laser product; maximum output 1mW; wavelength 650nm.

### HITACHI

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## Ultimate Short Throw LCD Projectors





## **ULTIMATE** 究極 SHORT THROW

#### Ultimate Interactive Short Throw LCD Projectors CP-AW2519N/CP-AW2519NM WXGA 2,500 Lumens

**Ultimate Short Throw LCD Projectors** CP-AW251N/CP-AW251NM WXGA 2,500 Lumens CP-A301N/CP-A301NM XGA 3,000 Lumens CP-A221N/CP-A221NM XGA 2,200 Lumens





205 Westwood Ave, Long Branch, NJ 07740 Phone: 866-94 BOARDS (26273) / (732)-222-1511 Fax: (732)-222-7088 | E-mail: sales@touchboards.



Wall mount unit: included with CP-AW2519NM/CP-AW251NM/CP-A301NM/CP-A221NM optional with CP-AW2519N/CP-AW251N/CP-A301N/CP-A221N.





## **Projectors that previously only projected images now have interactive** functions that surpass conventional uses

The CP-AW2519N/CP-AW2519NM projectors come with Starboard<sup>®</sup> Software that allows interactive operation. Until now you could only look at the image from the projector.

Now you can use the supplied interactive pen to perform mouse operations or to write letters or draw figures on the projected image using the StarBoard Software.

Interactivity provides several benefits:

- Real time operation and revision
- Improved audience concentration
- Audience participation in image operations
- Prompt data saving and printing function of the displayed content

These advanced projectors also feature Ultimate Short Throw and network functions.

*∉* 1/1

12%

20%

16%

14%

9%

#### Write Directly with the StarBoard Software

on the image with the interactive pen using the StarBoard Software and of course use it to erase what you have added. You can erase or change pen color or thickness from the floating tool bar.

#### Interactive Pen

The interactive pen lets you select three mode variations. The Normal pen mode is best for annotations and freehand, Intelli-pen mode is best for writing notes and drawing shapes, and Pointer pen mode works like a laser pointer.

#### Operating a Mouse with the StarBoard Software

lets you perform computer operations on the projected image using the StarBoard Software.

#### Save Handwritten Data

You can save what you have written or drawn on the image using the StarBoard Software in PNG, JPEG, BMP, HTML or PDF formats. This is handy for retaining meeting notes, and for sharing them via email or printing them out.



WXGA 2,500 Lumens

StarBoard® Software Included. · StarBoard® is a registered trademark of Hitachi Solutions, Ltd in Japan and other countries





Star Board Software [minutes]

File Edit View Tools Insert Topic Conference

#### Meeting room walls become interactive spaces.

With these projectors, as in the past you can write comments on a separate whiteboard while projecting images for effective meetings, and furthermore you can also write directly over the projected image on a wall using the StarBoard Software. What's more, the interactive function works on many types of surfaces: flat walls, whiteboards and even chalkboards.

#### **Excellent Interactive Functions for Business Use\***

\*All interactive functions require StarBoard Software.

You can write letters or draw shapes directly





Using the supplied interactive pen as a mouse



#### Simple Calibration

Initial setup is faster and easier, because you can perform calibration just by touching nine locations with the supplied interactive pen.



You can use Microsoft<sup>®</sup> Word. Microsoft Excel® and Microsoft PowerPoint® with the StarBoard Software and Interactive Pen

#### Conference Mode

You can share the StarBoard Software whiteboard with people in remote locations.

#### Tabletop Use

The optional tapletop use kit allows the projector to be used vertically. You can project a 1.5m (60") image down onto a table. And of course the StarBoard Software interactive function can be used



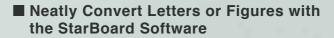
## **Ultimate Interactive Short Throw LCD Projectors** CP-AW2519N/CP-AW2519NM

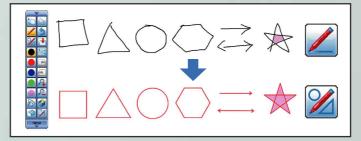
Wall mount unit: included with CP-AW2519NM, optional with CP-AW2519N

## The handy interactive functions allow greater communication for a new style of lessons



### **Useful Interactive Functions for Education Use\***



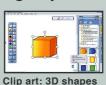


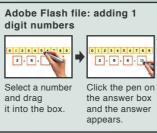
You can automatically convert freehand shapes into geometric objects and handwriting into text on the projected image using the StarBoard Software. These operations are easily accomplished with the interactive pen.

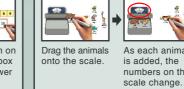


#### Clip Art, Adobe<sup>®</sup> Flash<sup>®</sup> Learning Objects

The StarBoard Software includes clip art. You can drag 3D shapes and other images onto the page and then move, resize and rotate them. There are many interactive Adobe Flash files, which are useful for lessons. Math and science are already included in Clip Art.







Adobe Flash file: adding

decimal masses

As each anima is added, the numbers on the

Windows<sup>®</sup>:

#### StarBoard Software Requirement Specifications

CPU: Intel® Pentium® 4 1.8GHz or faster Free Hard Drive Space: 600 MB or more

RAM: 1GB or mo

Display Colors: High Color (16 bit) or higher

Operating System (OS): Windows XP 32bit/Windows Vista® 32bit/Windows 7 32/64bit (the latest service pack must be applied) (Tablet PC Edition and Server Edition are not supported)

Software Required: Internet Explorer® 6.0/7.0/8.0 (for viewing Online Help and using Internet search functions) PowerPoint 2002/2003/2007/2010 (for viewing PowerPoint documents) Microsoft DirectX® 9.0c/Windows Media® Player 9 or above (for using movie features) Adobe Flash Player 10 (for using Flash object)

Others: DVD drive; Video card with hardware overlay feature (for using movie features) (for Webcam playback and capturing feature); DV (Digital video, DV cameras, D-VHS, etc.); Capture devices which support DirectShow (with WDM drivers)

#### Macintosh<sup>®</sup>:

StarBoard Software Requirement Specifications CPU: Intel CPU Free Hard Drive Space: 600MB or more RAM: 1GB or more Display Colors: High Color (16 bit) or higher Operating System (OS): Mac OS® X 10.5 / 10.6 Software Required: PowerPoint 2004/2008 for Mac® (for viewing PowerPoint documents) Apple® QuickTime® 7.1 or above (for using movie features) Adobe Flash Player 10 (for using Flash object) Others: DVD drive

RAM: 2GB or mor

Memory: 2GB or more

\*All interactive functions require StarBoard Software

### Subject Toolbox

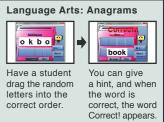
There are four subject toolboxes: Geography, Language Arts, Math and Science. You can choose one from the toolbar for display on

the screen, and use the various tools to hold the students?

attention and improve their

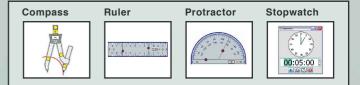
comprehension of the subject.





#### 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 using the StarBoard Software, making lessons even easier to understand.



#### Screen Capture

In addition to Full Screen capture, you can also select Partial and Freehand capture.



Full Screen



Partial Selection



Freehand Selection



## A full line of projectors with a wide range of functions for classroom use





WXGA

power speaker.

HDMI<sup>®</sup> Input

and presentations are

assured of the highest

image quality.

Layers

brightness and contrast

ratio. They ensure

high reliability.

cover on the back,

smooth images and

### **Superior Convenient Features**

#### WXGA (1280 x 800)\* and 720p Capability

Featuring WXGA (1280 x 800) resolution, these projectors are capable of displaying wide and large images. \* CP-AW2519N/CP-AW2519NM/ CP-AW251N/

### CP-AW251NM

#### Approximately 3.8kg (8.4 lbs.)\* Light Weight

Even with their many functions, these projectors are light, with a weight of only 3.8kg (8.4 lbs). \* CP-AW251N/CP-AW251NM/ CP-A301N/ CP-A301NM/ CP-A221N/CP-A221NM

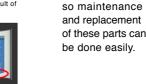
#### 5m USB Cable\*

The supplied USB cable is 5m long, expanding the area where the projector can be placed. \* CP-AW2519N/CP-AW2519NM

#### Perfect Fit

Perfect Fit enables guick adjustment of the projected image by moving its four corners one at a time. In addition, barrel or pincushion distortion, which occur on rounded surfaces, can easily be corrected. Perfect Fit may decrease picture quality as a result of





#### CP-AW2519N/CP-AW2519NM TERMINALS



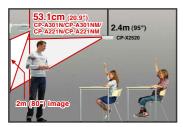
### Tabletop Use

The optional tapletop use kit allows the projector to be used vertically. You can project a 1.5m (60") image down onto a table.

#### **Ultimate Short Throw**

#### Reduced Glare and Shadows

These projectors feature Ultimate Short Throw, for projecting a 2m (80 inches) image from only 53.1cm (20.9 inches)\* onto a wall or whiteboard. Ultimate 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 teacher's or presenter's hands and body shadows are minimized. The result is a better classroom or meeting room experience for both teachers or presenters and audience.

\* CP-A301N/CP-A301NM/ CP-A221N/CP-A221NM. CP-AW2519N/CP-AW2519NM/ CP-AW251N/CP-AW251NM are 56.2cm (22.1 inches)

#### Precision Control Wall Mount Unit\*.

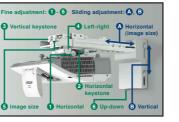
The six-axis wall mount design ensures that the projector can be installed in exactly the right position. The entire unit slides horizontally and vertically, and fine adjustments can be made to each axis independently.

The Messenger function transmits text data to the projector via a network, so the projector

can display it. This is an easy and efficient way to send campus-wide announcements.

Campus Notifications 
 School Activities 
 Daily Schedules 
 Community/Local News

· This function is not intended or guaranteed for the distribution of warning messages created by security systems.



\* Included with CP-AW2519NM/CP-AW251NM/CP-A301NM/CP-A221NM. optional with CP-AW2519N/CP-AW251N/CP-A301N/CP-A221N Do not attempt to install the projector yourself. Have your dealer or service center handle all installation work

#### Advanced Network Functions\*

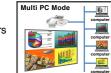
Messenger

Messenger is ideal for:

#### Network Presentations

You can project still or moving images from one or more networked computers. The Single PC mode lets you select one computer on the network, while the Multi PC mode lets you use

up to four computers. Displaying various images from computers makes lessons and presentations much more effective



Centralized Reporting With just one computer in an administration room, you can collect reports from



\* Video transfer through network may not be supported depending on combination of computer hardware and software. For projecting video sources, video/computer cable is preferable

all projectors connected to the network.







3.000 Lumens

CP-A221N/CP-A221NM 2,200 Lumens

XGA • Wall mount unit: included with CP-AW2519NM/CP-AW251NM/CP-A301NM/CP-A221NM, optional with CP-AW2519N/CP-AW2519N/CP-A301N/CP-A221N.

# ULTIMATE 究極 SHORT THROW

■ 10W Internal Speaker The projectors have a built-in 10W high

With signals transferred completely in the digital domain, lessons



#### ■ 3 LCD Panels with Inorganic Alignment

These projectors incorporate three LCD panels with inorganic alignment layers that are extremely light resistant, increasing



Easy Maintenance

The lamp door is on the top and the filter



#### Hybrid Filter

The Hybrid Filter has an electrostatic design with hybrid protection filter layers, protecting the optics from dust, dirt and chalk particles. It also has a longer life

than previous filters, so the projector requires less frequent maintenance.



#### Versatile Security Functions

The projectors are equipped with a security

bar. PIN Lock. MyScreen Lock and Transition Detector functions.



#### More Convenient Features

• 2,000 : 1 High Contrast Ratio (Presentation Mode) • Low Noise of 28dB\*1 (Eco Mode) Display via USB • Audio Pass Through\*2

Power Saving Mode 
 Template

Function<sup>\*3</sup> • Daytime Mode • My Button My Memory 
 Input Source Naming

 4-Second Quick Start • Direct Power On/Off · Closed Caption · Compatible with AMX Device Discovery

\*1 Typical. Tested in 23°C environmental conditions. \*2 When in Normal mode at standby setting. It does not function in Saving mode

\*3 Patent pending

