360 Advantages: CP-A221N







# Fully featured ultra short throw projector with network capabilities and a low operating cost all in a portable design.



The color light output spec measures the brightness of red, green, and blue, which create all the possible spectrum of colors. Smooth, seamless colors combined with an unparalleled grayscale range delivers incredible detail to every image displayed by a Hitachi 3LCD projector.



Featuring an ultra short throw lens which will project a 80" image at 20" from edge of projector. This not only prevents shadows caused by obstructions but also means no shadows and no light shining in the presenter's eyes.



2,200 lumens of white light output in conjunction with equal color light output project bright, clear, true to life images in any classroom or conference room.



Perfect Fit 2 enables the user to adjust individual corners and sides independent of one another. Perfect Fit 2 provides vertical and horizontal digital correction of either barrel or pin cushion distortions. This feature helps correct geometric and complicated distortions. Perfect Fit 2 allows the projected image to fit correctly to the screen quickly and easily.

# Advantage Highlights

Tabletop Mounting with Optional Stand

Drawing Function with Optional Tablet (TB-1)

Network Control, Maintenance and Security

PC-Less Presentation

PJMessenger

Present Content via LAN

Input Source Naming

Transition Detector and Security Bar

Microphone Input

Display via USB

**Template Function** 

IR Remote Frequency Change

MyButton / MySource - Doc Camera

PIN Lock / MyScreen / MyText

Serial Number and MAC Address Label on Side

## **Specification Highlights**

XGA Resolution (1024 x 768)

White Light Output: 2,200 Lumens

Color Light Output: 2,200 Lumens

4,000 Hour Hybrid Filter

5,000 Hour Lamp Life (Eco Mode)\*

2000:1 Contrast Ratio (Using Active Iris)

10 Watt Audio Output

HDMI (HDCP Compliant)

29 dB (EcoMode)

8.6 Lbs.

Less Than 1W in Power Saving Standby Mode

\* Actual lamp life will vary by individual lamp and based on environmental conditions, selected operating mode, user settings and usage. Hours of average lamp life specified are not guaranteed and do not constitute part of the product or lamp warranty. Lamp brightness decreases over time.





#### 5,000 Hour Lamp Life (Eco Mode)\*



Another key to low total cost of ownership is a long life lamp. The lamp is rated at 3,000 hours in standard mode and 5,000 hours in Eco mode.

#### Hybrid Filter (4,000 Hours between maintenance)\*\*



Hitachi's hybrid filter consists of a two-stage, layered design and an electrostatic filter, providing dust protection for up to 4,000 hours.

#### 2000:1 Contrast Ratio



Contrast can be automatically controlled through an active iris to add depth perspective during both bright and dark scenes.

#### Tabletop Presentation



Make any tabletop a projection screen using the optional tabletop stand. Ideal for a small group environment or in a room with limited space.

#### Drawing Function with Optional Tablet (TB-1)



The optional Hitachi wireless tablet and pen allows you to engage your audience by annotating over any image.

#### Network Control, Maintenance and Security



Projector management application (PJMan) allows users to monitor and control multiple projectors over LAN. Features include scheduling of events, e-mail alerts for reactive and routine maintenance. Crestron RoomView Express and AMX Device Discovery is embedded into the projector which provides out of the box compatibility with Crestron and AMX Systems.

#### **PC-Less Presentation**



By using a USB memory stick or other storage device, you can use the projector without a computer. Menus are easy to see with a thumbnail display. Additionally there is also a slideshow function.

#### **PJMessenger**



PJMessenger function allows you to send and display text messages and audio alerts on your networked projectors. It is an easy and efficient way to send campus wide announcements.

#### Present Content via LAN



 Hitachi's suite of networking software allows you to easily send content directly from your PC to the projector via your LAN connection.

#### Input Source Naming



Users can name input sources in simple language instead of factory default name.

Exclusive to Hitachi.

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- \*\* Actual filter life will vary by individual filter and based on environmental conditions, selected operating mode, user settings and usage. Hours of average filter life specified are not guaranteed and do not constitute part of the product warranty.

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#### Transition Detector and Security Bar



A security sensor located inside the projector recognizes when the projector has been moved. Moving the projector without using the correct PIN Code will disable the projector.



#### Microphone Input



Research studies have shown that the use of microphones improve classroom test scores. The CP-A221N provides a dedicated microphone jack that even works in standby mode.

#### Display via USB



Connect to your computer using the USB port.

#### Template Function



Line templates in the projector menu can help when writing on a whiteboard. There are four types of line templates to choose from. Exclusive to Hitachi.

#### IR Remote Frequency Change



To avoid conflict with fluorescent lights or IrDA (IR Signal) from notebook PC, the frequency of the IR remote control can be changed from the menu. Exclusive to Hitachi.

#### MyButton / MySource - Doc Camera



Two customizable buttons on the remote control allow users to create a shortcut for any projector command such as: Direct input (RGB1, S-video, etc.), picture mode or filter reset. For connection to a document camera, MySource allows users to add a third document camera source button.

#### PIN Lock / MyScreen / MyText



PIN lock protection can limit projector users. MyScreen PIN lock keeps captured images on the startup screen. Users can set a school's name or company's logo to MyScreen, clearly identifying ownership. MyText provides the ability to write text on the startup screen such as model name, serial number or location.

#### Serial Number and MAC Address Label on Side



A label is affixed to side of projector to more easily access and read the model name and serial number while mounted in ceiling use. This is a convenience for installers, end user and auditors for instant accessibility.

#### 10 Watt Audio Output



10W audio output eliminates the need to connect external speakers.

#### **HDMI Input (HDCP)**



Digital connectivity allows for highest image quality from your HD device. Compliancy with HDCP.

#### Power Saving Standby Mode



Power saving mode reduces the standby power consumption to less than 1W.







# Complete Specifications: CP-A221N



#### **Projection Throw Chart**

Aspect Ratio 4:3

Screen Diagonal**	Distance from Leading Edge of Projector to Screen**	Distance from Mirror to Screen**
60	3.8	15.9
70	6.3	18.4
80	8.9	20.9
90	11.4	23.5
100	13.9	26.0

Throw Ratio from Edge of Projector: 0.1:1 Throw Ratio from Mirror: 0.3:1

#### **Input/Output Terminals**













3LCD Technology



Closed Captioning



Hitachi Trade-Up Program

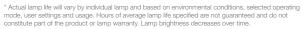




Crestron Integrated Partner



3 Year Warranty



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Specifications	
Projection Technology	3LCD, 3 chip technology
Number of Pixels	786,432 pixels
Resolution	
Video	540 TV lines
RGB	1024 dots x 768 lines
Colors	16.7 million colors
Aspect Ratio Native 4:3	
Lens	F = 4.1 mm



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Number of Pixels	786,432 pixels	
Resolution	Ultra Sho	
Video	540 TV lines	
RGB	1024 dots x 768 lines	
Colors	16.7 million colors	
Aspect Ratio	Native 4:3	
Lens	F = 4.1 mm	
Throw Ratio (distance : width)	0.3:1	
Lamp	210W	
White Light Output	2,200 ANSI lumens	
Color Light Output	2,200 ANSI lumens	
Expected Lamp Life	Approximately 3,000 hours (standard mode), 5,000 hours (Eco mode)*	
Contrast Ratio	2000 : 1 (using active IRIS)	
Speaker Output	10W	
Power Supply	AC90 - 132V / AC198 - 264V 50/60 Hz power	
Power Consumption	310W	
Operating Temperature	41°F - 95°F (5°C - 35°C)	
Input Signals		
Computer	VGA, SVGA, XGA, WXGA, WXGA+, SXGA, SXGA+, UXGA, MAC 16	
Composite Video	NTSC, NTSC4.43, PAL, PAL-M, -N, SECAM	
Component Video	480i, 480p, 576i, 720p, 1080i, 1080p	
HDMI	480i, 480p, 576i, 720p,1080i, 1080p,	
TIDINII	computer signal — TMDS clock 27 MHz to 150 MHz	
Acoustic Noise Level	35 dB (29 dB in Eco mode)	
H-Sync	15 kHz - 106 kHz	
V-Sync	50 Hz - 120 Hz	
Approvals	UL, C-UL, FCC, CE	
Computer Input		
Analog Computer 1	15-pin D-sub connector x 2	
Analog Computer 2	N/A	
Computer Monitor Output	15-pin D-sub connector x 1	
Digital Input	HDMI x 1	
Video Input		
S-Video	Mini DIN 4-pin connector x 1	
Composite Video	RCA jack x 1	
Component Video	15-pin D-sub connector (shared with analog RGB)	
Audio	The state of the s	
Input	3.5 mm stereo mini jack x 2, RCA jack (L,R) x 1, mic in 3.5 mr	
F=-	mini jack x 1 (mono,unbalanced)	
Output	RCA (L/R) x 1 pair	
Network (LAN)	RJ-45 port / 100 base-T	
Control Terminals	9-pin D-sub connector x 1 (RS-232 control)	
Dimensions (W x D x H)	13.6" x 11.9" x 4.0"	
Weight	8.6 lbs.	
Closed Captioning	CC1, CC2, CC3, CC4, T1, T2, T3, T4	
Supplied Accessories	Remote control with two AA batteries, power cord, computer cable, user's manual, network manual	
Optional Accessories	AW250NWALLARM, A3WALLARM, TB-1 wireless pen tablet, TT-251 tabletop stand	
Replacement Parts	ODDINGS AND OTTO OTTO	
Lamp	CPAW251NLAMP (DT01251)	
Remote Control	HL02772	







<sup>\*\*</sup>Measured in inches