SHARP

Highly Reliable Projector with High Brightness, Superior Picture Quality, Flexible Mounting Capabilities and Sharp Unique Network System

Conference Series

PICTURE BY DLP™
TEXAS INSTRUMENTS

Providing Maintenance and Control Convenience with Network Flexibility, the Ideal Projector for Large and Mid-sized Business Venues and Education Situations

High-Brightness Picture

5,200 ANSI Lumen High Brightness with Unique Dual Lamp System

With Sharp's advanced DLP® Optical Engine and dual 260W high-brightness lamps, the XG-PH70X achieves 5,200 ANSI lumen high brightness and excellent uniformity, delivering bright, clear images in large highly-lit rooms.

4-Mode Single/Dual Lamp Switchover

Choose the lamp arrangement to suit your needs. With dual lamp projection the XG-PH70X delivers high-luminance pictures in a huge room: 5,200 ANSI lumen in Standard mode and 4,300 ANSI lumen in Eco mode. Even single lamp projection provides sufficient brightness for mid-size to large rooms: 2,600 ANSI lumen in Standard mode and 2,150 ANSI lumen in Eco mode. Single lamp use also lessens lamp replacement frequency. Plus, even if one lamp burns out, projection performance can be maintained by using the other lamp without interruption.

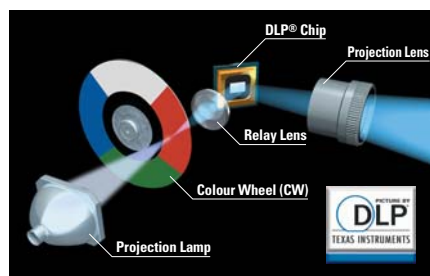5,200 ANSI lumen image with two lamps

2,600 ANSI lumen with single lamp

Cutting-Edge DLP® Technology

DLP® System

The XG-PH70X employs a DLP® system for the display device that controls the DLP® chip, which contains many thousands of micromirrors on the silicon chip, reflecting light to display images.

DLP® Chip
Projection Lens
Relay Lens
Colour Wheel (CW)
Projection Lamp

Long-life High-Performance DLP® Chip

DLP® chip formation with finely structured mirrors provides stable performance and delivers high-quality pictures for longer periods. The DLP® chip in the XG-PH70X achieves a lifetime of 20,000 hours*.
Also, because there is no burn-in or remaining afterimage, the projectors are ideal for still picture projection such as for guidance board applications and projecting CAD images.

* The lifespan is measured at the surrounding temperature of 25°C.
  This is a reference value and is not guaranteed.

1200:1 High Contrast for Big Screen Projection

The DLP® optical system prevents light leakage compared with LCD projection and provides sharper blacks in black parts and a 1200:1 high contrast ratio.

Sealed Optics

The optical mechanism of DLP® system projectors is sealed in its structure, preventing dust, dirt and smoke from entering core parts of the optics to a much greater degree than with LCD projectors. Plus, filters have been added for an enhanced interactive combination to even further block entry of these elements.
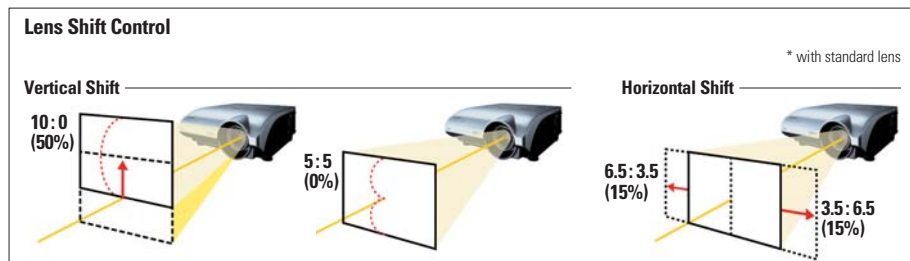
Flexible Install System

Powered Vertical/Horizontal Lens Shift Control

The powered lens shift control mechanism enables easy horizontal and vertical lens shift positioning to get the best viewing picture, even when the projector is mounted on a shelf or the ceiling.
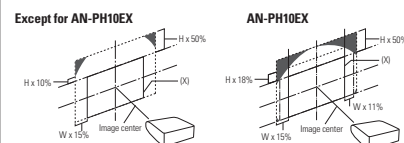
Six Interchangeable Lenses

The XG-PH70X may be used with six optional interchangeable lenses to meet a wide variety of applications and projection situations.
The lenses cover projection distances from 1.6m up to 14.2m for a 100" screen and projection of a screen from 40" to 500". Choose the one which best suits your projection conditions such as the room size, projection distance and projected picture size.
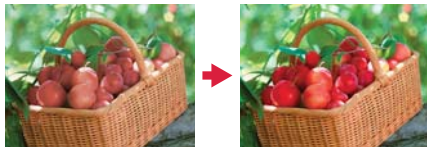
Lens Shift Adjustable Range

Horizontal range: ±15%
Vertical range: +50% (to the upper side)
The adjustable range has limitations even within the range shown above.
The image can be adjusted as shown in the diagram.

Except for AN-PH10EX

H x 50%
(X)
H x 10%
W x 15%
Image center

AN-PH10EX

H x 50%
(X)
H x 18%
W x 11%
W x 15%
Image center

■ : Areas on which the image is masked with a shadow while using the lens shift function.
H : Height of the image
W : Width of the image
(X): The position of the image when the vertical position of the image is center and the horizontal position is the lowest

Lens Shift Control

* with standard lens

Vertical Shift

10 : 0
(50%)

5 : 5
(0%)

Horizontal Shift

6.5 : 3.5
(15%)

3.5 : 6.5
(15%)

CV-IC (Computer & Video Integrated Composer) II System Technology

Colour Management System
The level of colour shade, chroma and tone can be set for each of six colours (red, yellow, green, cyan, blue, magenta), making possible more subtle adjustment of colour.

Example: The tone of only red parts in the picture can be enhanced.

Enhanced Three-Two Pull Down (NTSC)*
Detecting the video source (DVD software) recorded in 24 frame/sec. format, the XG-PH70X can beautifully reproduce natural high-quality pictures without blur by converting into 60 frame/sec. progressive images.

* This model is equipped with Two-Two Pull Down for PAL signals including 50 frames/second for PAL images.
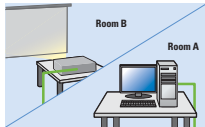
Pattern Matching Motion Detective PMD-IP Conversion
With conventional Motion Detective IP conversion, horizontally slanted lines and edges become a dotted or jagged line when moved. With Pattern Matching Motion Detective PMD-IP Conversion, correlated pattern matching that was impossible with pixel conversion is measured by sampling the pattern information with a length of visual data. The resulting new pattern in the middle produces horizontally slanted lines and smoothes edges, providing high-quality pictures.

Video Noise Reduction
Reducing picture blur and providing clear pictures.

Scaling
Helps to provide a high-quality image.

Picture-in Picture
Adds video images onto a data screen image.

SHARP Unique Network System

Web Browser Control

Web browser control enables remote access and management of the projector by utilizing built-in firmware without the need for additional special software.
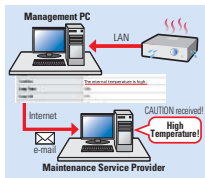
Remote Access for Control and Adjustment
Projector control functions, including power on, input select, volume, and AV mute, can be controlled and adjusted by a computer even in another room.

Diagnosis and Auto Email Alert
Email is automatically sent to appointed addresses when detecting an error message, such as the lamp going out, unusual heating or cooling fan breakdown.

Link to a Specific Website for Service and Support
The projector can be registered to a specific website for maintenance service and support. For example, the projector can send an error message, such as to notify that the lamp is burnt out, to a web address automatically selected. The address accessed for maintenance is also shown on the display.

Control with Downloadable Display Manager

A greater variety of network projector control options can be used when the Sharp Display Manager* is installed on the main computer.

Remote Access for Multiple and Group Projector Control
A management computer can control multiple projectors simultaneously.

Periodic/Error Diagnosis and Auto Email Alert
The Display Manager sends periodic reports and an error message as well as directly adjusts the projector gamma values and other projector conditions.

Theft Detection and Message
(Network Surveillance System)
A warning message will appear on the screen of a computer when projector cables are disconnected.

PJLink™ Capability
The XG-PH70X is compatible with devices that support PJLink™, enabling systems to be easily built for centralized management and operation using a controller.
For additional information about the PJLink™, visit http://pjlink.jbmia.or.jp/english/

Control System Compatibility
The XG-PH70X provides superior compatibility with various control systems such as Crestron, AMX and Extron.
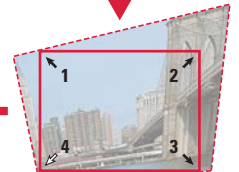
Presentation Convenience

Digital Keystone Correction
Conventional systems have difficulty adjusting a slanted screen horizontally and vertically without jag lines. The new system easily compensates for pictures projected on angles both horizontally and vertically by only spotting four points on the screen.
Even when projection on an angle is needed, preparation and adjustment are quick and easy, allowing you to start presentations smoothly and without hassle.

The projected picture is compensated by adjusting the four spotted points

Spot four points at the screen corners.

35dB Low Fan Noise (Eco Mode)
The intelligent multiple-fan control system eliminates annoying sound during presentations and meetings.

Remote Control with Mouse
Screen displaying presentation software such as PowerPoint® can be easily moved forward/backward and the cursor can be moved by remote control.

Presentation Support Tools
(Break Timer, Enlarge, Freeze, Black Screen)

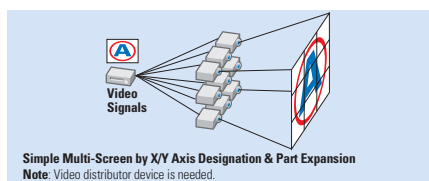### Wide Range of Connection Terminals
The projector is equipped with a wide variety of AV/PC terminals including HDCP-compatible DVI terminals to meet the needs of digital content.

Other Outstanding Features

Simple Video Wall
Usually, a costly image-processing device is required to set up a video wall projection. This projector has built-in video wall capability that doesn't require additional equipment.
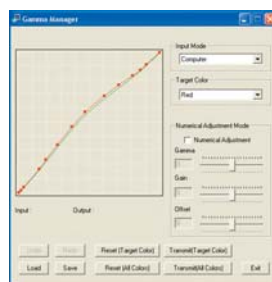
Simple Multi-Screen by X/Y Axis Designation & Part Expansion
Note: Video distributor device is needed.

Stack Setting Function
Multiple projectors can be assigned master and slave functionality and connected with commercially available LAN cables. This allows you to control multiple projectors with one remote control during stack projection or video wall projection.

Customizable Gamma Correction
The projector's gamma values can be set directly from a computer using the Sharp Gamma Manager*.

* Sharp Display Manager and Gamma Manager can be downloaded from the Sharp Global Website for free.
Sharp Global Website: http://sharp-world.com/projector/

Direct Power Off Function
The Direct Power Off Function provides convenience for a variety of applications by keeping the cooling fan operating even after the power supply has been turned off. This lets users immediately unplug the projector and take it from the location because there is no need to wait for the projector to cool down. Along with Direct Power Off, the Direct Power On function also helps control the power simultaneously for multiple projectors by using the room's primary power switch.

- ● **High-Speed Auto Response Adjust (ARA)**
- ● **Sharp Original Pull-Down Menu GUI**
  (Graphical User Interface): 11 languages selectable.
- ● **High-Quality Video Circuits**
  (3D Y/C Separation Digital Comb Filter, Noise Reduction, Colour Transient and Y Delay, Colour Temperature Adjustment)
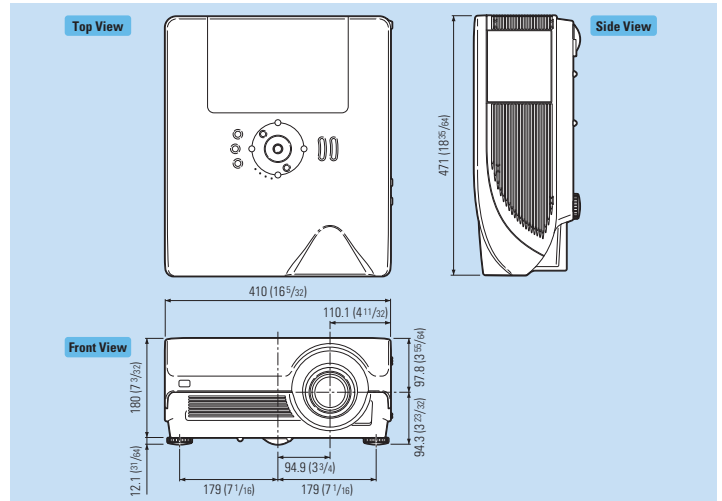- ● **New Auto Search**   ● **Image Capture**
- ● **Key Lock Function**   ● **System Lock Function**

XG-PH70X

Dimensions (Units: mm)

Top View   **Side View**

471 (18³⁵/₆₄)

410 (16⁵/₃₂)

110.1 (4¹¹/₃₂)

Front View

180 (7³/₃₂)   97.8 (3⁵⁶/₆₄)

94.3 (3²³/₃₂)

12.1 (³¹/₆₄)   94.9 (3³/₄)

179 (7¹/₁₆)   179 (7¹/₁₆)

Optional Accessories

Lenses

AN-PH10EX
Fixed wide lens
F2.5
f = 11.6mm
T/R 1:0.8

AN-PH20EZ
Wide zoom lens
F2.5
f = 21.2 - 25.8mm
T/R 1:1.5 - 1.8

AN-PH31EZ
Standard zoom lens
F1.8 - F2.0
f = 25.6 - 31.3mm
T/R 1:1.8 - 2.2

AN-PH40EZ
Tele-zoom lens
F2.4 - F2.5
f = 31.9 - 42.5mm
T/R 1:2.25 - 3.00

AN-PH50EZ
Tele-zoom lens
F2.5
f = 40.8 - 62.8mm
T/R 1:3.0 - 4.5

AN-PH60EZ
Tele-zoom lens
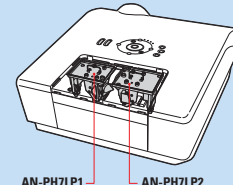F2.4 - F2.5
f = 62.1 - 97.8mm
T/R 1:4.5 - 7.0

Lamps

AN-PH7LP1   **AN-PH7LP2**

Cable

AN-C3CP2
3-RCA to 15-pin
D-sub cable (3 m)

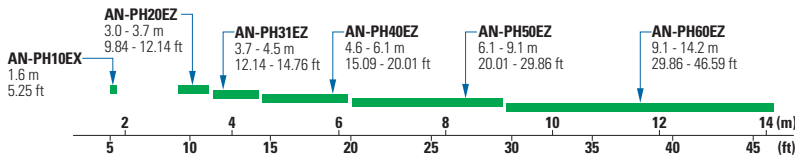### Ceiling Mounts

AN-TK201
For high ceiling installation

AN-TK202
For standard ceiling installation

AN-NV6T
Installation adaptor

AN-PH7LP1   AN-PH7LP2

Projection Distances for a Normal (4:3) 100" Screen

AN-PH20EZ
3.0 - 3.7 m
9.84 - 12.14 ft

AN-PH10EX
1.6 m
5.25 ft

AN-PH31EZ
3.7 - 4.5 m
12.14 - 14.76 ft

AN-PH40EZ
4.6 - 6.1 m
15.09 - 20.01 ft

AN-PH50EZ
6.1 - 9.1 m
20.01 - 29.86 ft

AN-PH60EZ
9.1 - 14.2 m
29.86 - 46.59 ft

| 2 | 4 | 6 | 8 | 10 | 12 | 14 (m) |
| 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 (ft) |

* The XG-PH70X is standardly equipped with the same class of lens as the AN-PH31EZ.

Specifications

Model	XG-PH70X
Panels	0.7"DLP®
Number of pixels	786,432 dots (1,024 x 768: h x v)
Resolution	520 TV lines (video input), 750 TV lines (DTV 720P input, stretch), 1,024 dots x 768 lines (computer data)
Luminance	5,200 ANSI Lumen (Standard Mode)/4,300 ANSI Lumen (Eco Mode) [Dual lamp mode] 2,600 ANSI Lumen (Standard Mode)/2,150 ANSI Lumen (Eco Mode) [Single lamp mode]
Contrast ratio	1,200:1
Lens	1:1.2 power zoom/focus lens, F1.8-2.0, f=25.6-31.3 mm
Projection size	40" (102 cm) to 500" (1,270 cm) diagonal
Projection distance	40" (102cm): 1.5 m-1.8 m, 100" (254cm): 3.7 m-4.5 m, 300" (762cm): 11.0 m-13.4m, 500" (1,270 cm): 18.3 m-22.4 m
Power lens shift	Vertical (5:5~10:0 [0%~+50%]). Horizontal (6.5:3.5~3.5:6.5 [±15%])*¹
Video/data systems	RGB input signals: UXGA*², SXGA+*², SXGA*², WXGA*², Mac 21"*², XGA, SVGA, VGA, VESA, Mac 19"/16"/13" 15-126 kHz (horizontal), 43-200 Hz (vertical), 12-230 MHz (pixel clock) (plug & play VESA; DDC 1/2B) Video colour systems: NTSC/NTSC 4.43/PAL/PAL (60Hz)/PAL-M/PAL-N/SECAM/DTV (480I/P, 540P, 576I/P, 720P, 1035I, 1080I)
Input terminals	Analogue RGB/component x 2 (15-pin mini D-sub x1, 5BNC x 1), digital RGB/component (24-pin DVI-D/HDCP) x1, audio L/R x 2 (3.5mm stereo mini jack), video x 1 (RCA), S-video x 1, audio L/R stereo x 1 (RCA), LAN x 1 (RJ-45), RS-232C serial port x 1 (9-pin D-sub), wired remote control x 1 (3.5mm mini jack)
Output terminals	Analogue RGB /component x 1 (15-pin mini D-sub), audio L/R x 1 (3.5mm stereo mini jack)
Fan noise	37 dB (Standard Mode), 35 dB (Eco Mode)
Projection lamp	260W (x2)
Lamp life	2,000 hours (Standard Mode)/2,500 hours (Eco Mode)*³
Audio amplifier	3W x 2 (Stereo)
Speakers	3.3 cm (x 2)
Power source	100-240V AC, 50/60Hz (Multi-Voltage)
Power consumption	650W (Standard Mode), 570W (Eco Mode), 0.8W (Standby without using LAN/monitor out) with AC 100V 620W (Standard Mode), 550W (Eco Mode), 1.1W (Standby without using LAN/monitor out) with AC 240V
Heat dissipation	2,440 BTU/hour (Standard Mode), 2,140 BTU/hour (Eco Mode) with AC 100V 2,330 BTU/hour (Standard Mode), 2,070 BTU/hour (Eco Mode) with AC 240V
Dimensions (W x H x D)	410 x 180 x 471 mm
Weight	14.9 kg (with lens)/13.7 kg (without lens)

● The XG-PH70X-N (with no lens included) is also available. ● The figures in the specification chart above are values measured with the XG-PH70X employing a standard lens or the optional AN-PH31EZ lens. ● Signals input through the DVI terminal are not output through terminals. ● Design and specifications are current as of February 2007, but are subject to change without notice. ● DLP® and DLP logo are resistered trademarks of Texas Instruments.
*¹ The movement range of the power lens shift varies depending on the lens type. Even in the movement range of lens shift, there may be shadows in the top corners of the screen. For further information, inquire with your nearest Sharp authorized projector dealer, service centre or Sharp sales office before purchasing. *² Compatible in advanced intelligent compression. *³ The lamp life may vary depending on usage conditions.