SHARP

PG-F312X/F212XL

True XGA Data Projectors

PG-F312X

Sharp's New High-Performance DLP® Projectors with Vibrant Colour Reproduction from BrilliantColor™ Technology Provide Great Support for Business and School Applications

Notevision

PICTURE BY DLP TEXAS INSTRUMENTS

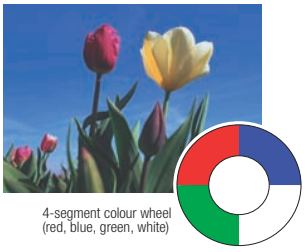
FEATURES BrilliantColor™ With Multi-Color Processing For Rich, Vibrant Colors! DLP

DLP® Performance with BrilliantColor™ Technology and Six-Segment Providing Superior Reproduction of High-Resolution Fine Colour Nuances

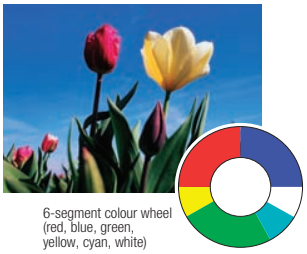
Cutting Edge Technology Provides High-Quality Picture

BrilliantColor™ Technology with Six-Segment Colour Wheel

BrilliantColor™ Technology improves picture brilliance particularly for intermediate colours, providing natural, detailed images. Sharp has also developed a 3x Speed Colour Wheel with six colour segments including yellow and cyan added to red, green, blue, and white. 3x Speed Colour With Sharp's unique colour matching technology and these six colour combinations, images can be reproduced with highly realistic colours.



4-segment colour wheel (red, blue, green, white)



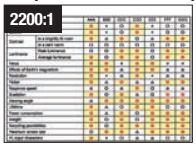
6-segment colour wheel (red, blue, green, yellow, cyan, white)

2200:1 High-Contrast, High-Quality Image

By utilizing the DLP® optical system and Sharp's optical technology, the projectors produce crisp details and sharper blacks in black parts thanks to a 2200:1 high contrast ratio.

Comparison of Dark Scenes

Comparison of Text and Graphics



PG-F312X

Models in the same class as these generally provide a contrast ratio of 400:1.

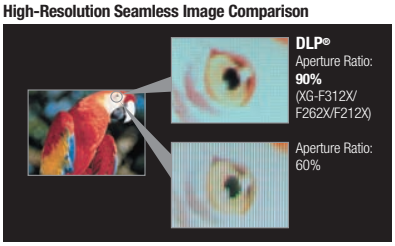
DVI Terminal with DLP® System for Full Digital Projection

Full digital projection with the DVI input terminal and DLP® system enables virtually noise-free images from digital sources. The terminal also complies with High-bandwidth Digital Content Protection (HDCP) to support digital video content in high-definition.

DLP® Digital Image

Using DLP® chip, each pixel is individually composed of one of over a half a million micromirrors to produce a high resolution, and the micromirrors lie at a distance of merely one micron, providing a seamless finely detailed picture. Also, high-speed on/off switching delivers smooth moving scenes.

High-Resolution Seamless Image Comparison



3x Speed Colour Wheel

The projectors employ a colour wheel with an engine speed of up to 3x, improving colour break-up to an invisible level. Also, the non-contact Fluid Dynamic Bearings for the high-speed rotating colour wheel axle have a longer lifespan.

IP Conversion Image Processing

Image Processing provides optimal video performance.
The motion-adaptive scan images produce smooth moving scenes and ensure smooth natural lines and edges for 480I and 576I.

Without TrueVision™ Image Processing

With TrueVision™ Image Processing

Outstanding Performance and High-Quality Reliability

High Brightness: 3000 ANSI lumens (PG-F312X), 2400 ANSI lumens (PG-F212XL)

Sharp's advanced optoelectronics technology maximizes light output, providing crystal clear images in amazingly high brightness.

Low Fan Noise

The DLP® high-speed colour wheel with non-contact Fluid Dynamic Bearings together with multiple ultra-quiet cooling fans reduce unpleasant noise, enabling quiet operation at 29dB in Quiet mode. The operation is so quiet it causes no disturbance even in meetings or school classes.

Filter-Free Design

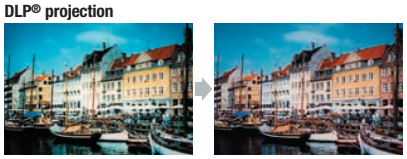
The DLP® sealed system prevents dust, dirt and smoke from entering core parts of the optics to a much greater degree. The system also needs no filter and less maintenance, resulting in lower cost of ownership and longer use.

Long-Life High-Performance DLP® Picture

With DLP® technology minimally absorbing high-output light, the projectors maintain uniform colour reproduction capability for a long period of time. Also, DLP® chip formation with finely structured mirrors provides stable performance and delivers high-quality pictures for longer periods. The DLP® chip contributes to a long lifespan.

In addition, 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.

DLP® projection



After 4,100 hours
(The picture shows no significant deterioration even after using the DLP® chip 4,100 hours.)

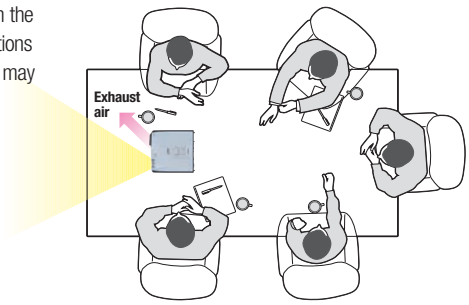
* By RIT/Munsell Colour Science Laboratory Test

Colour Wheel and High-Contrast Vivid Colours

Intuitive Design and Functions to Support Presentation Convenience

Front Exhaust Engine

The new projector series has an exhaust engine on the front so that the viewers can remain focused on the screen without distractions of noise and air which may disturb viewers.



Direct Power Off Switching

Direct Power Off lets users immediately unplug the projector and take it from the location. In addition, it also helps control the power simultaneously for multiple projectors by using the room's primary power switch with the auto restart function.

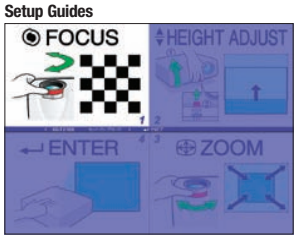
Quick Start

It takes only approx. 3 seconds to project the image.

Setup Guide for Interactive Operation

The Setup Guide provides intuitive OSD images to show the next step interactively for setup including focus, zoom and height adjustment.

Setup Guides



Setup guide is displayed after the projector is turned on.

Interactive Help Menu

The Help Menu displays any problems and assists the user in solving problems with operation.

Presentation Assist Remote Control

A variety of functions can all be performed with the projector remote control to aid your presentations including mouse control and page up and down. In addition, the following functions have been added for further performance.
Pointers: Five pointer icon shapes can be used to impressively draw attention to your subject.
Spotlights: Three spotlight sizes, ranging from 1/25 to 1/9 or 1/8 the screen, provide visual effects to focus on the specified subject.

Pointer icons

Spotlights

One-touch Advanced Picture Mode

Quickly and directly choose the appropriate settings for the picture mode and lamp brightness to match the intended application.

Multiple Connections for a Wide Range of Applications

Multiple Input Terminals

Projectors can be connected to DVD players, cable or satellite boxes, laptop and desktop computers, HDTV tuners, VCRs and video game consoles. DVI-I and D-sub terminals (in/out) are also provided.

Other Outstanding Features

Condenser Lens Optics

Crisp detail, sharper black and ghost-less image.

4:3 and 16:9 Aspect Ratios and HDTV/DTV and DVD Compatible

(1080P, 1080I, 720P, 576P, 576I, 540P, 480P and 480I).

Image Shift Function

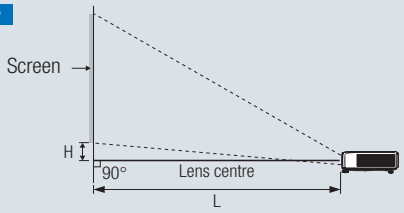
Images projected in 16 : 9 format can be vertically shifted for better viewing in limited spaces.

Theft Deterrent Function "System Lock"

Key Lock Function

Correlation of the Projector to the screen

Side View



Screen Size and Projection Distance

NORMAL Mode (4:3)

Picture size			Projection distance [L]		Distance from the bottom of the image to the lens centre [H]
Diag.	Width (cm)	Height (cm)	Minimum	Maximum	
300"	240" (610)	180" (457)	36'10" (11.2m)	—	7 9/16" (19cm)
200"	160" (406)	120" (305)	24'7" (7.5m)	28'4" (8.6m)	5 3/64" (13cm)
120"	96" (244)	72" (183)	14'9" (4.5m)	17'0" (5.2m)	3 1/32" (8cm)
100"	80" (203)	60" (152)	12'3" (3.7m)	14'2" (4.3m)	2 33/64" (6cm)
80"	64" (163)	48" (122)	9'10" (3.0m)	11'4" (3.5m)	2 1/64" (5cm)
40"	32" (81)	24" (61)	4'11" (1.5m)	5'8" (1.7m)	1 1/64" (3cm)

STRETCH Mode (16:9)

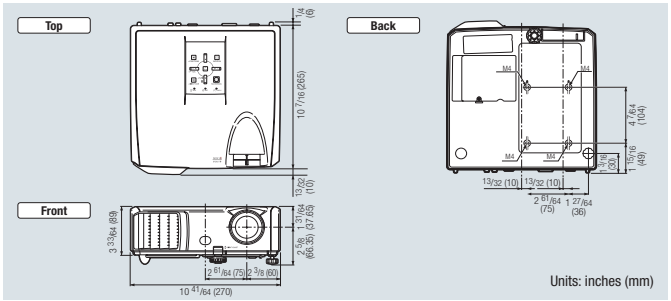
Picture size			Projection distance [L]		Distance from the bottom of the image to the lens centre [H]	Adjustable range of image position [S]
Diag.	Width (cm)	Height (cm)	Minimum	Maximum		
250"	218" (553)	123" (311)	33'6" (10.2m)	38'8" (11.8m)	27 19/64" (69cm)	±20 27/64" (±52cm)
200"	174" (443)	98" (249)	26'9" (8.2m)	30'11" (9.4m)	21 53/64" (55cm)	±16 11/32" (±42cm)
120"	105" (266)	59" (149)	16'1" (4.9m)	18'7" (5.7m)	13 3/32" (33cm)	±9 13/16" (±25cm)
100"	87" (221)	49" (125)	13'5" (4.1m)	15'5" (4.7m)	10 59/64" (28cm)	±8 11/64" (±21cm)
80"	70" (177)	39" (100)	10'9" (3.3m)	12'4" (3.8m)	8 47/64" (22cm)	±6 17/32" (±17cm)
40"	35" (89)	20" (50)	5'4" (1.6m)	6'2" (1.9m)	4 23/64" (11cm)	±3 17/64" (±8cm)

* Allow a margin of error in the above values.

PG-F312X

Note: The PG-F312X is identical in appearance to the PG-F212XL with the exception of the model number indication.

Dimensions (PG-F312X / F212XL)



Optional Accessories

Lamp

AN-F212LP

USB Remote Receiver

AN-MR2

Cable

AN-C3CP2
3-RCA to 15-pin D-sub cable (10' (3 m))

Ceiling Mounts

AN-TK201
For high ceiling installation

AN-TK202
For standard ceiling installation

AN-60KT
Installation adaptor

Note: Some of the optional accessories may not be available depending on the region. Please check with your nearest Sharp Authorized Projector Dealer or Service Center.

Specifications

Models		PG-F312X	PG-F212XL
Display device		0.55" DLP® chip x 1	
Resolution		XGA (1,024 x 768)	
Brightness		3,000 ANSI lumens	2,300 ANSI lumens
Contrast ratio		2,200:1	
Lens	F number	F2.5-2.6	
	Zoom	Manual, x1.15 (f=20.4 – 23.5 mm)	
	Focus	Manual	
Picture size		40" (102 cm) to 300" (762 cm)	
Projection distance		40":1.5 – 1.7 m, 100":3.7 – 4.3 m, 300:11.2 m	
Input signals	Computer RGB	UXGA*1*2, SXGA+*1*2, SXGA*1, WXGA*1, XGA, SVGA, VGA	
	* Compression	Mac 21"*1*2, 19"*2, 16"*2, 13"*2	
	DTV	1080P, 1080I, 720P, 576P, 576I, 540P, 480P, 480I NTSC, PAL, SECAM	
Input terminals	DVI-I (Compatible with HDCP)	x1	
	Computer / Component (mini D-sub 15 pin)	x1	
	S-Video (mini DIN 4pin)	x1	
	Video (RCA)	x1	
	Audio (ø3.5 mm stereo minijack)	x1	
	Audio (RCA)	x1 (L/R)	
Output terminals	Computer / Component (mini D-sub 15 pin)	x1	
	Audio (ø3.5 mm stereo minijack)	x1 (variable audio output)	
Control and communication terminals	USB (Type B)	x1	
	RS-232C (mini DIN 9 pin)	x1	
Horizontal frequency		15 – 110 kHz	
Vertical frequency		45 – 85 Hz	
Speaker		2 W (mono)	
Fan noise		37 dB (Bright), 29 dB (Eco+Quiet)	32 dB (Bright), 29 dB (Eco+Quiet)
Projection lamp		250 W	200 W
Lamp life		4,000 hours (Eco+Quiet)	
On-screen display languages		English, German, Spanish, Dutch, French, Italian, Swedish, Portuguese, Russian, Polish, Hungarian, Turkish, Arabic, Persian, Simplified Chinese, Korean, Japanese	
Rated voltage		AC 100-240 V	
Rated frequency		50/60 Hz	
Input current		3.4 A	2.9 A
Power consumption (standby)		326 W (5.0 W) with AC 100 V, 316 W (5.7 W) with AC 240 V	267 W (5.0 W) with AC 100 V, 259 W (5.7 W) with AC 240 V
Heat dissipation		1,230 BTU / hour with AC 110 V (Bright), 830 BTU / hour with AC 110 V (Eco+Quiet) 1,190 BTU / hour with AC 240 V, 810 BTU / hour with AC 240 V (Eco+Quiet)	1,010 BTU / hour with AC 100 V (Bright), 830 BTU / hour with AC 100 V (Eco+Quiet) 980 BTU / hour with AC 240 V, 810 BTU / hour with AC 240 V (Eco+Quiet)
Operation temperature		41°F to 95°F (+5°C to +35°C)	
Cabinet		Plastic	
Dimensions (main body only) W x H x D		10 41/64" x 3 33/64" x 10 7/16" (270 x 89 x 265 mm)	
Weight (approx.)		6.4 lbs. (2.9 kg)	
Supplied accessories		Remote control, two R-6 batteries, power cord (6' (1.8 m)), RGB cable (10' (3.0 m)), lens cap, DIN-D-sub RS-232C adaptor (5 57/64" (15 cm)), storage case, operation manual, CD-ROM	

Design and specifications are current as of March 2008, but are subject to change without notice.
*1 Compatible in intelligent compression *2 Analog RGB signal only
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- The lamp life may vary depending on the usage condition.

SHARP

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