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Home Theater Projectors

One of the main reasons people buy a home theater projector is for the cost per image area. While buying a projector has the benefit of giving a huge viewing area, there are some limitations that effect the image quality. Some things to compare are resolution, brightness, contrast ratio, weight, and optional features when shopping for a home theater projector. The most popular home theater projectors like Epson, Optoma, Sharp, Sony, Sanyo, Infocus, Panasonic, and Samsung.

Types of Home Theater Projectors

LCD Projector

Liquid Crystal Display (LCD) create bright images by passing light through three small LCD panels that are vibrant in color and sharp. LCD projectors are appropriate for dimly-lit rooms and auditoriums.

DLP Projector

Digital Light Processing (DLP) use a single digital chip that makes them weigh less than LCD projectors. They offer smooth video performance, high contrast ratios, and little pixilation. Perfect for home theater use.

3LCD Projector

3LCD projectors use three LCDs to create bright, crisp, vibrant smooth images. 3LCD projectors separate light from the projection lamp into red, green, and blue colors. Each color is shone through individual liquid crystal display panels that give high definition and movement to the projected image. Since there are 3 LCDs there are no problems with color breakup or a 'rainbow effect', where the image blurs and separates into its three component colours around the edges. 3LCD has improved contrast level, excellent black and shadow reproduction, and can produce a quality bright and clear image from a low-output lamp.

Projector Characteristics

Projector Resolution

The resolution of a home theater projector is the sharpness and clarity of the picture produced. It measured by the number of pixels the projector uses to creat the image. Resolution is expressed by two numbers. The first number indicates the horizontal pixels and the second number represents the vertical pixels. For example a 720p (1280 x 720 progressive scan) or 1080i (1920 x 1080 resolution iterlaced scan). The higher the resolution, the sharper the image.

Throw Distance

Throw Distance is a measure of the size of image a projector can produce from a given distance. You can find the throw distance of your projector usually by visiting the manufactures website and using their throw distance calculators.

Keystone Correction

Keystone Correction is a feature that allows a projector image to be adjusted when the projector is at an odd angle from the screen.

Contrast Ratio

Home Theater projectors will give the give the contrast ratio, the difference between the White Level (Brightest) and Black Level (Darkest) sections of an image with a ratio. Projectors with a higher contrast ratios produce the most well-defined pictures.

Lumens

Lumens are a measurement unit of total illumination. Projector light output is measured in ANSI(American National Standards Institute) lumens. A projector with a higher lumen number will produce a brighter image for a given image size.

Typical Lumens Ranges

Less than 1000 lumens

Least expensive. Low light output means that you will want to make your presentations in a dark or dimly lit room so the image on the screen is not washed out by ambient room light.

1000 to 2000 lumens

Typical range for SVGA and XGA products. Presentations should be done with the room lighting reduced somewhat for best screen viewing.

2000 to 3000 lumens

Offer flexibility in terms of ambient room light, a reasonable amount of room light can be tolerated without washing out the image. Can illuminate a larger screen without much loss of image quality.

3000 lumens and up

Ultra bright and most expensive projectors.

Lamp Life

The typical lamp life for a projector on average is between 1500-3000 hours. A replacement lamp can cost between \$200-\$400.

Home Theater Projectors are surely the best value compared to cost per screen size of plasma and lcd tvs.

The author Alan Hutchinson is President of HTmarket.com the [Home Theater](#) Marketplace, check out the latest home theater projectors and [home theater seating](#).

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