



M. David Stone, August 3, 2016
ProjectorCentral.com



NEC NP-P502WL Projector

Lumens: 5000 Resolution: 1280x800 Price: \$3429

What the NEC NP-P502WL is designed for

It is ideal for:

- **Fixed Installation Projection.** Data and graphics presentations in medium-scale venues - larger conference rooms or small auditoriums. .
- **24/7 Applications.** Displays and signage in retail, museums, and theme parks.

It is also suitable for:

- Video as a secondary application



What the NEC NP-P502WL gives you

Compact and light weight - under 20 lbs.

Excellent data image quality

Solid video performance

20,000 hour laser light engine

5-year/20,000 hour warranty

Long 1.7x zoom lens

Significant horizontal and vertical lens shift range

360 degree pitch installation

Portrait mode rotates the image 90 degrees

Audio suitable for a mid-size to large room



NEC NP-P502WL Rear Panel

Connection Panel Inputs:

- (1) 3D-Sync
- (1) RJ-45 LAN (for control)
- (1) Composite video
- (1) Stereo audio-in with RCA connectors
- (1) USB A (reads files from USB memory keys)
- (1) HDBaseT
- (1) DB-9 RS-232 (for control)
- (2) HDMI
- (1) VGA / Component video
- (1) 3.5mm stereo audio-in
- (1) 3.5mm stereo audio-out
- (1) VGA monitor out
- (1) Internal USB A (for \$80 Wi-Fi dongle)

Physical attributes. All ports are on the back panel. Viewed from behind, the internal USB port is hidden by a small cover on the upper left, and the power connector is on the lower right. The exhaust vents and controls are on the right-side panel along with the security bar near the bottom, and the Kensington lock slot near the rear. Intake vents are on the left side of the front panel. Lens shift controls are on the top, just behind the lens.



Our Lab Tests: What the Meters Say

BRIGHTNESS. ANSI lumen measurements on the NP-P502WL were as follows.:

MODE	Full	Eco 1	Eco 2
High Bright	5001	4087	2415
Presentation	3645	2979	1760
Video	2242	1832	1083
Movie	2612	1832	1261
Graphic	2616	2138	1264
sRGB	1366	1116	659
Natural	2637	2155	1274
Dicom Sim	3054	2495	1475

Low Lamp Mode. There are two low lamp modes. Eco 1 lowers brightness by about 18%. Eco 2 lowers it by 52%. There's also a slider control in Eco Off mode with settings of 100 (full brightness)

to a minimum of 16, which we measured in High Bright mode at only 168 lumens.

Presentation Optimized Lumens. The full 5000 lumen High Bright calibration offers reasonably good color quality for presentations, with some images showing a bluish-green bias. For improved color while still emphasizing lumen output, Presentation mode delivers a still substantial 3650 lumens.

Video Optimized Lumens. The sRGB mode delivers the best color quality for video and about 1350 lumens.

Zoom Lens Effect. The maximum telephoto position for the zoom lens reduces brightness by 23% compared with the widest angle setting.

Brightness Uniformity. The measured 88% uniformity is solid performance and better than most projectors manage.

Input Lag. The P502WL produces input lag of 66 to 68 ms depending on the preset mode.

What it sounds like

On-board Audio. The audio system's 20-watt mono speaker delivers enough volume to fill a mid-size to large room and acceptable sound quality for narration or movie dialogue.

Fan noise. Fan noise is not problematic for presentation use in the larger rooms the P502WL is designed for, and would be a non-issue for most digital signage applications. NEC rates the P502WL's fan noise at 39 dB in full power mode and 33 dB in both Eco modes. However, the actual level is usually lower, since the fan speeds vary with the internal temperature. The sound is a constant low-level hum with a whooshing overlay.

At its loudest, the fan would be hard to ignore in a quiet room if you're sitting within about 15 feet. With Eco mode, you can still hear it at 15 feet, but I didn't notice it except when I made a point to listen for it.

The High fan mode is meant both for altitudes starting at 5,500 feet and for continuous operation--as with signage--at lower altitudes. The sound in High mode is loud enough that if you use it for presentations, you'll want to consider putting the projector behind a false wall to help deaden the sound.

Setting it up

Throw distance. The 1.7x zoom lens provides very good installation flexibility. The P502WL can throw a 120" diagonal 16:10 image from roughly 11' to 18.5'. To find the right range for the image size you want, see the [Projection Calculator](#) which has been pre-loaded with the P502WL's throw data.

Lens Shift. At the bottom of the range for vertical lens shift, 33% of the image is above the centerline of the lens, and 67% is below the centerline. At the top of the lens shift range, the bottom edge of the image is 26% of the image height above the centerline.

Depending on the vertical shift, the horizontal shift varies from a maximum of about 40% of the screen width left or right of the midline to a minimum of about 10%.

If you want to tilt or swivel the projector even after taking advantage of the lens shift, you can adjust for vertical keystone distortion of up to plus or minus 30 degrees and horizontal keystone distortion of up to plus or minus 25 degrees.

Our take on the NEC NP-P502WL

The **NEC NP-P502WL** is a remarkably light weight and compact installation projector for medium to large venue data presentation or retail displays and signage. Most laser-based 5000 lumen installation projectors weigh 30 lbs and up. The P502WL comes in at a sleek 19.4 lbs, making installation much less of a chore. And it packs a lot of projector functionality into that very compact package - 5000 lumens, 1.7x zoom range, very good H+V lens shift range, 360 degree orientation, portrait mode display, 24/7 operation, HDBaseT, and 20,000 hour life.

The P502WL's 20,000 hour light source makes it virtually maintenance free. Even better, its long life design is covered by a 5-year warranty, the longest we normally see in the industry.

All of this makes the NP-P502WL one of the most versatile projectors in its performance class. We believe it will find a home in a variety of venues from business conference rooms and small auditoriums to retail malls, museums, and theme parks.

[See Current Prices on the NEC NP-P502WL](#)



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