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NEC'S LASER PROJECTORS: WITH GREAT PERFORMANCE, PLUS INNOVATION – COMES GREAT VALUE!

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NEC's extensive line of laser projectors starts with an array of excellent-performing affordable laser projectors that offer low cost, serious brightness, and especially long warranties. We will start there, too, but will cover more powerful models as well.

Welcome to another of Art's custom Features – this one focused on NEC's laser projectors. This is essentially one of my info-oriented "advertorials," stripped of most of the hype, and "laser-focused" on providing you with our findings and insights (I write these, NEC gets to do minor edits and make suggestions – works for me – and should, for you).

You will find links at the bottom of this page: To our relevant reviews, and also to additional information on NEC's site.

Meet Sue - at the Field Museum. Sue is the world's most complete T-Rex skeleton. - Note the projector lit vertical "tapestries" in the back. Close-up below.

The Field Museum makes extensive use of NEC projectors, using projection mapping, vertical operation, more. Here's a closer look at the vertical images.

OK, BUCKLE UP – HERE WE GO:

NEC is also a major player in the very high end commercial markets, with top of the line-up projectors in the six figures price range! We're talking a few, big time, 100-pound plus, 220 volt, wall melting projectors. We focused on one of those in our last NEC Feature, early this year (tipping the scales at almost 400 pounds)!

When we say "commercial," we're thinking full feature sets, typically including interchangeable lenses, edge blending, projection mapping, HDBaseT, advanced networking, and such.

Perhaps NEC's most notable laser projectors, in terms of performance, are focused in market segment for mainstream commercial projectors – typically 6,000 lumens to 15,000 lumens. They offer an extensive line up, and some "sets us apart from the competition" capabilities I will circle back to in a few paragraphs, but in the meantime, try not to think of "dust!"

I want to point out what's special with all these large venue projectors, built for tackling a wide range of applications. They include NEC's PA and PX series with a "sealed light path" (I'll explain below). OK, enough lead in…

As dazzling as those big NEC's are, they also offer some "monster class" projectors too! We looked at them in a Feature early this year, including the NP-PH3501QL – a 3-chip, native 4K DLP projector with a monster 40,000 lumens!

Here's another PH series projector – in the rafters at the Infocomm trade show. Note it is mounted sideways. It was filling a different, seriously large screen under full trade show lighting with no problem.

NEC's PH3501QL laser projector used for visualization - 30 ft+ screen. Vibrant, accurate colors! - Infocomm 2019

PLEASE CHECK OUT THIS AFFORDABLE LASER AND ITS TWIN

I want to start off with a good look at NEC's current affordable laser projectors. We've reviewed two series of them – both are highly suitable for conference rooms, larger classrooms, and lecture halls, etc., as well as many digital signage applications. These are high volume projectors, with new generations of models consistently winning our Hot Product Awards. These are laser projectors that are likely to be purchased in significant large volumes for use in a university or corporate setting.

The one that most impresses us, that I'll touch on in a sec, is one of the two NP-P525 models: the P525UL, which has WUXGA resolution (and more). Its WXGA sibling, the NP-P525WL, it is well worth noting – is a true value, with an education price just a few dollars over $2,000. That makes it one of the best bargains around in a laser projector considering its capabilities!

These two 525's are very bright and extremely capable laser projectors, bundled with pretty rock bottom prices and a killer feature set.

The NP-P525UL really is something special. Yes, it is 3LCD, (its predecessor was a DLP laser projector) and yes, it is WUXGA, and yes, NEC says it produces 5,200 lumens – both white and color lumens, although those are "peak" lumens in the center of the screen. Officially it is 5,000 lumens, although you'll often see the 5,200-lumen number in dealer ads.

We reviewed this NEC just a month and change before publishing this – boy, did it perform! It did measure just over 5,000 lumens, so right in line with its claim (and better than most). Typical of 3LCD (or LCoS projectors), they offer as many color lumens as white ones. whereas most DLP projectors output far lower color lumens vs white). That essentially enables 3LCD projectors like these, to achieve excellent color without sacrificing a whole lot of lumens.

Translated – more color lumens means when you are using the brighter modes, expect good reds and yellows! Those can come out dark red (think wine color), and with greenish yellows, when a projector is short on color lumens. These NEC's certainly are not.

And, the NP-P525UL it is important to note, isn't the typical lower-cost laser projector sporting WUXGA resolution, that is because it also supports 4K content!

That is still a pretty rare ability, and it is a feature that extends the projector's life in terms of future compatibility/planned obsolescence. There are limits of course, but the NEC does

support 4K at 30 fps (no HDR). Count that as a real plus, a capability that should be really appreciated in school settings where projectors tend to stay in operation years longer than in many business settings. In those business settings, the addition of 4K capabilities is still likely to also extend useable life.

Yes, you can find laser projectors for less than these, but don't expect 4K support. Got it?

The NP-P525UL has plenty of features including:

5,000+ measured lumens
1.60:1 zoom lens and plenty of vertical and horizontal lens shift
Extremely quiet compared to the competition!
Advanced networking, with support for Crestron, others
Optional Wireless Networking
Projects up to four sources simultaneously
Picture in Picture
Can be operated at any angle (great for digital signage applications)
HDBaseT – low cost solution for running networking up to 100 meters
HDBaseT is a feature often not found standard on "affordable lasers"
5 Year Warranty! – Which really is outstanding for this class (or any class) of projector!

Sounds pretty good, but now I'll bet you are wondering if this NEC is the Runner-Up, who took top honors?

Well, you could check out our Education report, but…

Let me point out that the projector that beat this NEC out, also claims 5,000 lumens, but is a 4K UHD pixel shifting DLP, which offers more 4K support. **That other projector, however, has a street price almost exactly double that of the P525UL**. I do believe you can safely say: "This NEC has real value"?

TIME TO TALK DUST!

NEC Ups Their Game, with a Sealed Light Path:

NEC has pioneered creating 3LCD based optical engines with sealed light path in their latest mainstream commercial projectors. True, as it turns out, no projectors truly have a perfectly sealed setup, but the term refers to systems that essentially take "dust" out of the maintenance equation. It's been almost three years since NEC started building this advantage into new laser projectors.

Focused on keeping dust out of the optical light path, DLP's have long claimed a sealed light path, which eliminates the importance of filters. Most lower end DLP projectors don't even have filters.

On the other hand, 3LCD projectors, which traditionally lack a sealed light path, always have had filters, and the need to clean or replace – until recently!

NEC's impressive efforts with these 3LCD projectors, providing them with a "sealed light path" design, provides a distinct advantage over most other 3LCD projector models, providing maintenance "parity" with their DLP projectors in this regard.

MEET NEC'S FULL FEATURED LASER PROJECTORS! 3LCD AND DLP

NEC's light path breakthrough is a major positive. To provide perspective, consider these two NEC laser projectors: The NP-PA803UL (big brother to the PA653UL we reviewed), and the NP-PX1005QL (review just published). Both series claim sealed light paths.

The PA series projectors are 3LCD, while the PX series are single chip DLP's with 4K UHD capabilities. (The PX1004QL we wrote about earlier this year, was billed as merely 4K UHD ready, while this more expensive PX1005UL really is 4K UHD.)

The PA series is So Unique!

Not only do you get that "sealed light path" and basic 4K capabilities, but, most impressive, thanks to edge blending, and NEC creativity, **you can put four PA projectors in a 2×2 matrix to produce full 4K content without the resolution compromise** you get with pixel shifters.

NEC's PX and PA series offer laser engines, 3LCD or DLP design and a "sealed light path." 10,000 lm NP-PX1005UL shown here.

If you use four of the NP-PA803Uls, each with 8,000 lumens, combining to do a single image, you have an effective 32,000 lumens! Now, check the price down below, and these NEC's start looking like a real bargain compared to single 30,000 lumen projectors.

This is an option that should excite plenty of AV specialists, especially those supporting high-end museum projects and large auditorium environments. And, let's include mega-churches in there as well, as likely users of these projectors singly or in a matrix.

Pricing, no surprise, is higher on the higher resolution DLP chips, but other than that, feature sets are surprisingly similar between PA and PX.

These are very serious, and not inexpensive projectors, so to help you get a handle on things, check out both the MSRPs, and also NEC's aggressive education pricing, provided as part of their Star Student Program. Note the large difference between list and education pricing. That would tend to indicate that NEC has provided some room for play for business and other commercial clients (we usually find MSRP – list prices – misleading). Note: The 41ZL in the table below is NEC's standard zoom lens for the PA series projectors.

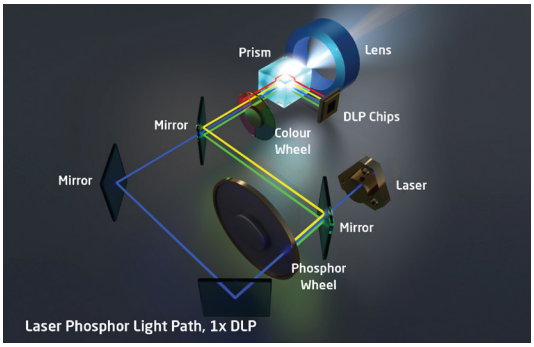
NP-PA653UL-41ZL	Lumens	Tech	Res	MSRP	Star Student
NP-PA653UL-41ZL	6500	3LCD	WUXGA 4K Capable	$8889	$5431
NP-PA803UL-41ZL	8000	3LCD	WUXGA 4K Capable	$12,429*	$7499
NP-PX1005UL*	10,000	DLP	4K UHD pixel shifter	$24,000	Contact NEC
NP-PH3501QL**	40,000	3chip DLP	Native 4K	$149,000	Contact NEC****

*Without lens

**NEC's flagship Commercial Projector

*** NEC runs Special Promotional Pricing from time to time. As of 7/2019, the special pricing is $11,299

**** The PH3501QL isn't likely to find itself in traditional higher education installations such as auditoriums, but along with its 12,000 and 30,000 lumen, lower-cost siblings, should prove popular in high end museum displays. (Museums are often considered educational institutions since many are affiliated with universities.)



THE BOTTOM LINE ON NEC LASER PROJECTORS – AND WHERE TO FIND MORE INFORMATION

NEC's line-up of lasers starts with their affordable models, which represent some of the most aggressively-priced laser projectors available today – and don't forget that these projectors are 4K capable! Plus, NEC provides a 5-year warranty (and Insta-Care) on all NEC laser projectors!

Another Field Museum image - this time showing Sue, with projection lighting on walls, ceiling, and way in the back - those vertical "tapestry" like panels. (Click to enlarge).

Once you need more than a "mere" 5,000 lumens, or more advanced capabilities such as projection mapping, edge blending, 4K capable with additional 4K support including HDR, or interchangeable lenses, you need to look no further than NEC's PA and PX series.

You'll find them to be powerful, have excellent warranties, low maintenance designs, and many innovative features. Congrats to NEC – they are a leader in developing high-performance laser projectors, and excellent value propositions as well.

HERE'S THAT EXTRA INFO WE PROMISED

NEC's Commercial Laser Projector Main Page

Please check out our in-depth reviews:

Our Review of the NP-P525UL
Our Review of the NP-PA653UL

More NEC Information on the Featured NP-PA803UL

Thanks for checking out our NEC Laser Projector Feature! -art