

AV INFO

PRODUCT:
Native 4K home cinema PJ with HDR support

POSITION:
JVC's entry-level native 4K D-ILA projector

PEERS:
Sony VPL-VW270ES; Sony VPL-VW570ES; JVC DLA-N7

JVC has gone native (4K) with its 'mainstream' D-ILA projectors. **John Archer** dims the lights and drools

Projector with plenty of pixels

JVC's D-ILA home cinema projectors have almost always been brilliant. What they haven't typically been up to recently, though, is natively 4K – and its first native 4K home cinema model was the £35,000 Z1 laser PJ, which I'm almost certain you didn't buy. More affordable models long relied on proprietary e-Shift technology to deliver a pseudo 4K effect by passing HD images through two fractionally offset 1080p imaging chips.

Now, however, JVC has gone the whole 4K hog. All of its new D-ILA models – even the entry-level DLA-N5 tested here – carry three native 4K D-ILA chips, finally putting them in the same home cinema sphere that Sony previously had to itself. And I'm pleased to say the difference this makes to the N5's image quality is instantly obvious.

Supplying the PJ with two of the most crisp and detailed 4K Blu-rays I know – *Blade Runner 2049* and *Passengers* – finds an extra texture and raw detail versus even the best of JVC's e-Shift models. And with it comes more of a sense of depth and scale with expansive shots, such as the one across the junkyard after K crashes his spinner in *Blade Runner 2049*.

Close-ups with 4K content appear more organic, as genuine extra pixels of image information replace e-Shift's 'pixel repetition' approach. As a result, there's none of the slight plasticky look to skin tones, or processed feel to close-ups, that e-Shift sometimes caused. In fact, I could actually discern the makeup powder on Luv's face, during the extreme close-up as she controls the satellite-based weapon that saves K from his trash heap attackers – something I've never noticed before.

What's more, JVC has managed to introduce its new native 4K support without messing up other aspects of its long-respected projector picture quality.

The high native resolution is joined by a native contrast ratio of 40,000:1. The DLA-N5 can give you deep, rich

black levels accompanied by bold whites with none of the potential instability associated with projectors that dynamically adjust irises or lamp outputs to achieve strong contrast.

In fact, the N5 proves a far better handler of high dynamic range sources (in HDR10 or HLG formats) than any of its predecessors. Its HDR pictures are consistently brighter, avoiding a tendency to sometimes actually look duller than SDR, which is not what the format advertises. The N5's 1,800 Lumens of maximum brightness isn't huge, but it creates a satisfying sense of HDR peaks. Neon signs in the Ryan Gosling sci-fi have tangible pop.

Colours are almost always convincing in HDR too, largely avoiding a previous potential for tones to become too dark in dark scenes, or slightly bleached in bright ones.

The key to the N5's HDR improvements appears to be JVC's new intelligent tone mapping system. This works by taking the average and peak brightness metadata provided by 4K Blu-ray discs and using it to calculate the best way to display the images. You can argue that this functionality means you're not seeing a 'true' representation of HDR material. But HDR wasn't designed for PJs, and no consumer model can deliver a 'native' HDR experience

successfully, so it's common sense for JVC to optimise performance. And the results, frankly, speak for themselves. You only have to toggle Auto Tone Mapping on and off to see what a difference it makes. A adjunct to this is the Mapping Level too, which can be used to essentially increase or

1. The new range gets a new, more compact remote control

2. For image purity, the DLA-N5 employs a 17-element all-glass 65mm lens

3. The PJ is also offered in a décor-friendly white finish



decrease the picture's baseline brightness, and thus reduce or expand the image's dynamic range.

As mentioned in our IFA show report (see p23), JVC is promising a firmware update to its D-ILA models that will introduce a Frame Adapt HDR function, an evolution of Auto Tone Mapping where the PJ will adjust its presentation constantly based on analysis of each frame in an HDR source. This promises to make the N5's picture even more dynamic – hopefully without also making it look less stable.

Baby brother

It's useful at this point to recap the other models in JVC's N range that will give you even more punch with 4K HDR

content. The £8,500 N7 (reviewed in *HCC* #298) ups the brightness to 1,900 Lumens and doubles native/dynamic contrast to 80,000:1/800,000:1 respectively, while the THX-certified NX9 hits 2,200 Lumens; uses a 100mm glass lens rather than the N5's 65mm version lens; claims a native contrast ratio of 100,000:1; and, intriguingly, carries the projector world's first 8K e-Shift system. The NX9 also, though, costs a mammoth £18,000.

I'd expect both those models (my colleague Steve Withers auditioned the N7) to also suffer less with one of the N5's niggles: a reduction in black level depth during very high-contrast images. There's a slight greying effect sometimes apparent here with dark areas of HDR movies, >

although it really is small by the standards of other 4K HDR capable projectors. And while a little of D-ILA technology's legendary black level prowess has been sacrificed on the altar of 4K Blu-ray, the N5 delivers the most beautiful, nuanced and contrast-rich SDR pictures in its class.

If you're watching SDR on the N5, you're probably also watching 1080p hi-def, raising questions over the quality of JVC's upscaling. The answer is that it seems fair to middling; upscaled pictures look reasonably crisp, but

'A fantastic projector for the money. It's native 4K talents are a revelation, and it's more than satisfying with HDR'

there was a little more source noise than if I used the upscalers in my Oppo UDP-203 and Panasonic DP-UB820 4K Blu-ray players. So it's worth experimenting.

The PJ runs wonderfully quietly with SDR playback. It's noticeably noisier, however, with HDR, because it has to drive its lamp at its highest intensity. Yet it's a very smooth sound that's fairly easy to tune out, and the N5's colossal bodywork seems to help at least muffle the worst of the fan noise. Arrange your room so that seating isn't particularly close to the projector and this should stop extraneous humming from being a big problem.

Helping you achieve this is a flexible setup system. The N5 has a huge 2.0x optical zoom, as well as expansive vertical and horizontal optical image shifting. And you can adjust from your sofa thanks to motorised control via the ergonomic, backlit remote.

There are picture options galore in the PJ's menus, including a six-axis colour management system (the N5 is ISF certified), dynamic iris activation, plus adjustment of the projector's level of detail enhancement, colour smoothing, noise reduction, and CMD motion processing tool.

Gamers, meanwhile, should dig out the Low Latency Mode that reduces the time the projector takes to render images to a respectable 24ms.

As with all JVC D-ILA models, the N5 supports (active) 3D playback – although oddly there's no dedicated 3D picture preset, meaning you'll have to set up your own. I wasn't provided with the necessary (optional extra) 3D

SPECIFICATIONS

3D: Yes. Active shutter **4K:** Yes. 4,096 x 2,160 resolution **HDR:** Yes. HDR10; HLG **CONNECTIONS:** 2 x HDMI inputs; Ethernet; RS232-C, 12V trigger; USB for firmware updates; 3D sync emitter connection **BRIGHTNESS (CLAIMED):** 1,800 Lumens **CONTRAST (CLAIMED):** 40,000:1 native/400,000:1 dynamic **ZOOM:** 2.0x **DIMENSIONS:** 500(w) x 234(h) x 495(d)mm **WEIGHT:** 19.6kg

FEATURES: 3 x native 4K D-ILA devices; 400W lamp; automatic tone mapping; 'MPC' picture processing with sharpness, smoothing and noise reduction options; Low Latency Mode; Clear Motion Drive motion (CMD) processor; 17-element, all-glass 65mm lens; colour management system; 4,500-hour lamp life claimed in Low mode; motorized zoom/focus/shift controls; +/- 80 per cent vertical and +/-34 per cent horizontal lens shift

PARTNER WITH



PASSENGERS: This enjoyable Chris Pratt/Jennifer Lawrence sci-fi yarn was filmed at 6.5K for a 4K DI, and the resulting UHD Blu-ray dazzles with its precise pixel finery. Import the US release and you'll find it bundles the 3D Blu-ray version too.

sync emitter and glasses for this test, but its performance should be similar to that of the previously reviewed N7. Which is to say, free of crosstalk ghosting, great at motion, but a little less bright than is ideal.

Money well spent

JVC's DLA-N5 is a fantastic projector for the money. Its native 4K talents are a revelation, and the automatic tone mapping makes it more all-round satisfying with HDR than I was expecting. Yes, stepping up to the N7 will give you that bit more HDR shock and awe. But many will think the extra £2,000 needed for that is better invested elsewhere in their cinema room ■

HCC VERDICT



JVC DLA-N5

→ £6,500 → www.jvc.co.uk

WE SAY: JVC's N5 challenges Sony's dominance of the affordable (ish) native 4K home cinema projector market, and the results are a joy to watch.

4. Both HDMI inputs are v2.0b with 18Gbps bandwidth

