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FUTURE MEDIA WITH YOU

# Reinventing the colour wheel



The latest model from ProjectionDesign gets serious about solving DLP's traditional shortcomings. John Archer casts a beady eye on the result



**I**t's a fact of life that most 'new innovations' are little more than PR puff. But I'm taking the new BrilliantColor system from the Norwegians at ProjectionDesign rather seriously.

BrilliantColor is not something PD has cobbled together over a weekend. In fact, the company claims to have developed it hand-in-hand with the creator of DLP technology, Texas Instruments. So significant has been the input, that ProjectionDesign says it's been given exclusive use of BrilliantColor on its new 720p ProjectionDesign Action! M20.

## Design and features

Effectively, the technology has two elements: a slew of sophisticated processing algorithms, and a brand-new DLP colour wheel design that adds yellow, cyan and magenta to the traditional red, green and blue segments. This should result in: brighter peak colours; deeper red, green and blue; less colour noise; and more natural colour tones, with (allegedly) 200 trillion shades possible.

Actually, we've featured BrilliantColor before in *HCC*, as it's found on Optoma's HD73, reviewed as part of a group test in *HCC* #142. But that was only the processing portion, not the new colour wheel hardware element. The M20 is the only 720p projector currently using the full BrilliantColor hardware/software monty.

There's nothing about the exterior of this PJ that hints at innovation though. It's the same small, high-gloss chassis as

seen on many previous PD models, and made from cast magnesium so the entire outer chassis works as one big heat sink.

Curiously, there is only one digital video input: a DVI jack. There is some good news on the connection front, though, if you're a custom installer. PD has included 9-pin RS232, USB and RJ-45 TCP/IP control and communication ports. Plus, you get the inevitable component video, S-video and composite video fallbacks.

Other M20 specs are quite significant. The new colour wheel spins at a frantic x7 speed rather than the x5 of most DLP projectors in the M20's bracket, which should mean it falls prey far less to DLP technology's rainbow effect.

The chipset is TI's HD2+ DarkChip 3, with a native resolution of 1280 x 720 and a

## SPECIFICATIONS

ITEM	SUPPORT	DETAILS
HD Ready	○	1080i, 720p, 1080p (downscaled)
Progressive Scan	○	480p, 576p, 720p, 1080p (ditto)
Composite	○	1 phono input
S-video	○	1 input
Component Video	○	1 input
HDMI/DVI	○	1 DVI
PC input	○	1 D-Sub

Resolution: 1280 x 720

Brightness: 500-1000ANSI lumens (user selectable);

Contrast: 4000:1 (claimed)

Dimensions: 278(w) x 94(h) x 2340(d)mm; Weight: 2.98kg

Also featuring: Full BrilliantColor support, x7 colour wheel speed, lamp output adjust, gamma/colour presets, red/green/blue bias/gain adjusts, DVI expand, 1.95-2.43:1 throw ratio, 30-300in image size, 1.5-10m focus distance

## LAB REPORT

	Excellent	Good	Average	Poor
Colour	✓			
Black Level	✓			
Contrast	✓			
Resolution		✓		

# Tried&Tested.. AV Projector



ion design

***'There really is an extra level of intensity and authenticity to the colour palette'***

# Tried&Tested... AV Projector



contrast ratio that looks good at 4,000:1 – especially as this is a ‘true’ contrast ratio rather than one achieved via dynamic iris trickery.

There’s good flexibility in the Fujinon-sourced optics too, with a huge degree of optical lens shift and a healthy level of optical zoom. The DVI input accepts 1080p signals in all their possible 24/30/50/60Hz configurations. There is also an option to show 720p sources on a 1:1 basis, if you can actually find any.

## Performance

Focusing first on the benefits of the full BrilliantColor system, there really is an extra level of intensity and authenticity to the colour palette compared with anything I’ve seen at this price.

Take the opening credits of *Superman Returns* (HD DVD). The dramatic colours of the planets look phenomenally rich, giving the sequence a new dynamism.

Then, when it cuts to Lex Luthor at his wife’s deathbed, the very tough colour palette is reproduced with truly superb authenticity and subtlety. Also telling is the BrilliantColor suppression of colour noise, as tricky scenes like the one in Luthor’s boat library look almost devoid of the colour dotting seen with many DLP rivals.

Facial close-ups, meanwhile, tend to look more natural than usual thanks to

the BrilliantColor colour blending, and the bright points in images, such as the outside light bursting through gaps in the exterior of Superman’s Fortress of Solitude, look unusually crisp and bright. And these benefits even stand out when compared directly with a projector just using the software ‘half’ of the BrilliantColor system.

Happily, the remarkable colours in the picture aren’t let down by other weaknesses. The M20’s black level is excellent for this money, combining serious depth with a stability, dynamism and shadow detail that rival projectors using a dynamic iris system can’t consistently match.

It also effortlessly renders the textures and details from any good HD source. Full

HD projectors at £3,500 like Panasonic’s LCD-based PT-AE1000 and Sony’s SXRD-based VPL-VW50 may look slightly sharper, certainly, but by overall picture standards the M20 is outstanding and its colour fidelity certain to impress.

## Conclusion

So is there likely to be a demand for a high-end 720p projection in this age of Full HD? Possibly. You do need to be careful with the M20’s setup, particularly when it comes to black level. But put in the calibration effort your £3,500 deserves, and the M20 rewards with a performance that breaks 720p DLP ground. BrilliantColor is a genuine step forward in the evolution of DLP ■



If you're expecting lots of digital video inputs you'll be disappointed but options for installers are much more positive



Expense and innovation has been confined to the projector

## RATINGS

Highs: Superb cinematic pictures; little sign of traditional DLP problems  
Lows: Single digital video input, care needed with picture setup

Brightness	★★★★½
Clarity	★★★★
Features	★★★★
OVERALL	★★★★