Warp, weft winner

John Archer auditions an acoustically transparent projection screen that pleases his ears and his eyes

Despite being a relatively new name on the UK projection screen scene, Screen Excellence (part of U.See Ltd) has already successfully established itself, apparently as a result of the product that's really catching the eye of both end users and custom installers alike. And that's the EN4K fabric, as fitted for our test into the motorised RM2-T rig.

So just what's so special about this textile? Well, essentially, it's a proprietary acoustically transparent screen that avoids the picture problems often associated with such screens (to the extent that it's apparently '4k compatible'), while also costing surprisingly little.

Meanwhile, the 100in RM2-T rig looks fairly unassuming, having been designed to be unobtrusive when you're not using it. The container for the screen is just a long, flat-backed barrel in a metallic black finish.

However, this finish immediately raises concern, because it reflects a noticeable strip of light along the barrel's underside when the screen is being used. I addressed this by taping black felt over the offending area – and recommend you tell your installer to do the same.

Motor home

After this slightly careless start, though, things improve fast. For a start, **the simple motorised mechanism for lowering and raising the screen works surprisingly smoothly and quietly for a unit in the RM2-T's price bracket**. What's more, once it's fully extended, it has enough tension to look as flat and 'solid' as a fixed frame screen.

It's good, too, to see the screen framed by a really light-absorbing black velvet border and fitted with a layer of black backing. This backing should play a crucial role in reducing the light let through (and thus

Hasta la Vista: Screen Excellence also offers the VistaCurve Cinemascope screen with EN4k fabric

AV/CV

Product: Acoustically transparent screen designed to match the pictures of solid, non-acoustic screens

Positioning: Top of the range

Peers: Screen Innovations Black Diamond II

Low light seepage: The tightly woven EN4K fabric is the secret ingredient to this screen's success

'wasted') by the acoustically transparent screen's perforations.

Meanwhile, the 'weave' of the main 0.98 gain, matte white fabric is startlingly dense and smooth for an acoustically transparent screen. And since there's no easily discernible mesh or grid-like pattern in the fabric, no discernible screen structure shows up in the pictures, either.

Acid test

Using a trio of projectors – Epson's TW5500, JVC's X3 and Sony's VW90 – with various brightness outputs and source types, the RM2-T never once betrayed a hint of fabric screen structure from any sort of remotely sensible viewing distance.

This a considerable achievement for an acoustically transparent fabric that starts at around £1,800 for an 80in fixed screen version. Even some similarly priced 'solid' vinyl screens struggle to completely hide their structure from the picture.

Even better, there's not the slightest trace of *moiré* interference. This wavy line noise can occur with acoustically transparent screens when the rows and columns of pixels in a picture have a step size close to that of the fabric's perforation step or weave size. But the RM2-T's image is totally noise-free and natural, even when showing very bright images.

The fineness and solidity of the EN4K fabric suggests, indeed, that it probably will deliver on its '4k' claims, although I couldn't actually test this, given the current difficulties in finding 4k projectors and sources.

What I was able to test on the EN4K, though, was full HD alternate frame 3D footage. And the screen

resolved *Avatar*'s extraordinary detail levels and perfect depth handling with seemingly effortless accuracy that was just superb.

Three-dimensional viewing does highlight a solitary EN4K 'weakness', as 3D images looked a touch darker and less punchy than they do on my reference solid (not acoustically transparent) screen. The slight loss of brightness created by the screen's acoustic transparency can also lead to colours looking marginally less vibrant, too. But hues are nonetheless very accurate in tone and extremely clean with it.

In fact, while a solid screen might give you a slightly brighter image, by the standards of acoustically transparent fabrics, especially affordable ones, the amount of light seeping right through the EN4K material is actually remarkably small, especially when you take into account how well it allows audio to permeate through from speakers mounted behind it. Screen Excellence claims the screen introduces just 2dB of audio loss, despite the density of its fabric, and to be honest, I struggled to detect any deterioration in the audio at all, using either my ears or measuring equipment.

Lightbulb moment

At this point, the full and potent appeal of the RM2-T suddenly becomes blindingly clear. From the way it balances picture quality and acoustic transparency while costing so relatively little, it makes a hugely attractive proposition for anyone wanting to put together a convenient, but also high-quality home cinema room without spending a fortune ●

Here come the grills: The RM2-T never once revealed a trace of fabric structure

HCC VERDICT

Screen Excellence RM2-T, From £4,860 approx

Highs: Achieves a remarkable screen density for an acoustically transparent screen; very affordable

Lows: Light reflects onto the bottom of the top casing

Performance: ①②③④**⑤**
Design: ①②③**④**⑤
Features: ①②③④**⑤**

Overall: ①②③④**⑤**