

Sim2 HT3000 1080p DLP Front Projector

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Video front projectors have always been the best way to watch movies at home, and now that new 1080p models capable of unveiling all the detail in high-def sources have arrived, there's even more reason to get keyed up about the category. The Sim2 HT3000 1080p DLP front projector is one of the first to feature Texas Instruments' new discrete 1,920 x 1,080-pixel Digital Light Processing technology. A single-chip model with a seven-segment color wheel and full 10-bit video processing, the HT3000 sells for \$15,995 with a standard 1.5-2.0x zoom lens.

With numerous less costly 1080p projectors out there, including current LCoS models from Sony and JVC and forthcoming single-chip DLPs from companies such as Runco, Sharp, and Optoma, the Sim2's high price tag might seem hard to swallow. But then again, the HT3000 isn't an ordinary projector. Along with its high-rez picture and Euro-slick looks, a lot of this model's appeal lies in its versatile setup features: a vertical lens-shift function to simplify installation, motorized zoom and focus, variable overscan, 36-step user-adjustable color temperature, and 12 gamma presets optimized for conditions ranging from bright daylight to total darkness. Don't try and tell me that Sim2 doesn't give you the tools to make pictures look good.

The curved lines of the HT3000's dark gray metal-flake case give it a sports car-like appeal. Even so, the projector's low-profile design and relatively quiet fan (compared to others) mean you probably won't notice it suspended from a ceiling. The HT3000's back-panel inputs represent pretty much every connector you'd want, including two HDMI jacks (both accept 1080p signals), VGA, and component-video/RGB+H/V. Unfortunately, there's no DVI digital video input, which some installers prefer to HDMI because it has a more physically secure connector.

Most people use video projectors in dim rooms; fortunately, the Sim2's remote was easy to operate in the dark. It has a fully backlit keypad and a cluster of number buttons for directly switching inputs. You navigate menus via arrow keys, using a set of plus- and minus-labeled buttons to quickly flip through the submenus.



The Format button offers up a wide range of display (aspect ratio) modes: Normal and Anamorphic, for standard 4:3 and widescreen 16:9 DVDs and HDTV; Panoramic and Letterbox, for filling a 16:9 screen with standard and letterboxed 4:3 pictures; Subtitle, which raises the picture; and Pixel-to-Pixel, which maps pixels from incoming signals to the display chip on a one-to-one basis. There are also three User modes that store custom horizontal and vertical picture dimensions.

SETUP I set the HT3000 up on a low table 12 feet away from a 93-inch-wide Da-Lite HighContrast Da-Mat screen, which uses a negative-gain material to enhance picture contrast with digital projectors. Viewing images from around the same 12-foot distance put me squarely within the THX-recommended viewing angle and also close enough to fully appreciate all the detail in 1080i-format HDTV.

The picture-tweaking features Sim2 packed into the HT3000 proved useful and very easy to manipulate. Every adjustment you make gets independently stored for each video input, and there are nine additional picture memories you can customize and create labels for — "Daytime TV," for example.

The Short Form
Snapshot
A pricey 1080p projector with a stunning picture that reveals every last shred of detail in HDTV programs.
Plus
<ul style="list-style-type: none"> •Very crisp HDTV picture •Punchy contrast and satisfying brightness •Negligible rainbow effects
Minus
<ul style="list-style-type: none"> •Somewhat pale greens •Noise-reduction feature removes picture detail at high settings •No DVI input
Key Features



But what most impressed me were the color-temperature and gamma controls. Along with a handful of presets (one of which, Low, measured close to the 6,500-degree kelvin grayscale standard), the projector has a User color-temperature mode that lets you actually adjust its grayscale by moving X and Y points on an onscreen CIE chromaticity diagram (see Test Bench). The projector's 12 gamma presets range from standard curves for dimly lit home theaters to curves optimized for high ambient light. I used the ST5 setting, which deepened blacks and boosted highlights slightly without changing other parts of the picture.

PICTURE QUALITY With the HT3000 arriving around the same time as my new Toshiba HD DVD player, I felt like I had died and gone to home theater heaven. My first movie choice was *Happy Gilmore* — one of the more psychotic flicks Adam Sandler starred in before he went mainstream. In an early scene where Happy first discovers his incredible golf ball-whacking ability, the Sim2's punchy contrast revealed a subtle play of sunlight on the white stairs in the background while the shadows beneath the trees remained a solid, deep black. The picture was also

satisfyingly bright — an observation that our measurements back up. Skin tones of the actors in this scene had a neutral and completely realistic hue, while the red geraniums and blue hydrangeas dotting the yard showed rich, well-saturated color.

- 1,920 x 1,080 resolution single-chip DLP projector
- Accepts native 1080p-format signals
- 1.5-2.0x zoom lens
- Motorized zoom and focus
- Vertical lens shift
- Inputs:** 2 HDMI, VGA, component-video/RGB+H/V, composite-/S-video, all with analog stereo audio; RS-232, USB 1.1
- Outputs:** Optical digital audio; 12V trigger
- 17.1 x 7.5 x 17 in; 24.3 lb

Test Bench

The Low color-temp preset measured closest to the 6,500° kelvin grayscale standard; tweaks in the User submenu brought it to within 250°K from 30 to 100 IRE — a very good performance. The HT3000 showed fairly substantial color-decoder error on its HDMI inputs, measuring —20% green (said to be intentional) and +5% red; the component-video inputs measured only —5% green and +5% red. Color points were pretty accurate, although the green primary measured yellowish-green. The Sim2 fully resolved 1080i/p and 720p test patterns, though some noise was evident in the last two bars of a multiburst pattern via component-video. Max brightness measured 16 foot-lamberts on my screen, making this one of the brightest projectors I've tested.

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Scanning ahead to a scene where Happy and Chubbs (Carl Weathers) listen to self-important golf pro Shooter McGavin (Christopher McDonald) speak at the opening of a tournament, I was amazed to see not only the fuzz on Chubbs' white sweater, but also the ribbed pattern on his powder-blue golf shirt. The Sim2 HT3000 put this sort of ultrafine detail up there without breaking a sweat.

When I switched to a Detroit vs. Boston baseball game broadcast in 720p on ESPN HD, the picture still looked sharp, but there was a drop in overall detail. I also couldn't help but notice that the turf looked somewhat pale compared to the rich green I'm used to seeing from games on ESPN. A Sim2 rep said the company intentionally desaturates green on the HDMI in-puts — presumably to avoid the unnaturally rich, fake-looking greens seen with some other digital projectors.

Moving on again, I found that the HT3000 delivered excellent shadow detail in dim scenes from HBO's western series Deadwood; I could clearly make out the coarse texture of the wood inside a grimy saloon. And while I'm usually painfully aware of the "rainbow effect" generated by the color wheels on single-chip DLP projectors, I barely noticed them here — most likely because of Sim2's high-speed, seven-segment wheel.

Finally, the Sim2 HT3000's video scaling of standard-definition programs was better than average. The DVDs I watched on it, however, didn't look as crisp or clean as those upconverted to a high-def format by my Toshiba HD DVD player. And although the projector's noise reduction feature helped eliminate "crawly" effects in low-rez pictures, I noticed some loss of picture detail when it was applied.

BOTTOM LINE The increase in high-def detail that the Sim2 HT3000 1080p DLP front projector brings to the screen with 1080i/p-format HDTV is a revelation. Although its relatively high price makes me want to survey the field, I'm impressed not only by its picture, but by the entire package, from the slick industrial design to the thoughtful setup and adjustment features. If you're planning a serious 1080p home theater and cost is no object, you owe it to yourself to check out the Sim2 HT3000.

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