

# OPTOMA HD20

A game changer



**"The HD20 delivers an impressively good image for a surprisingly low price."**



Final Rating: ●●●●○

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## PROS

Breakthrough price for a 1080p projector.

## CONS

Falls down a bit on image quality for 480i (standard-definition) television signals.

## VERDICT

The Optoma HD20 brings a new level of affordability to 1080p projectors, with reasonably good image quality.

**T**he Optoma HD20 is what you'd have to call—and this is no exaggeration—a game changer. It brings 1080p projectors to a new level of affordability and it also happens to project a high-quality image, which doesn't hurt at all. The HD20 is built around a DLP engine with a native 1080p (1920-by-1080) resolution. It's really intended as a home theater projector that you can set up permanently, however, which is how most people will probably use it.

Setup is standard fare. But be sure to have your own cables on hand. Optoma supplies only a composite video cable, which limits you to standard-definition (480i) signals, and will definitely not give you the video quality you had in mind when you decided to buy a 1080p projector. We can understand Optoma not supplying a full set of cables given the HD20's low price, but it would have been nice if the one cable were for HDMI.

The back of the HD20 offers two HDMI ports for video and data signals, an RCA plug jack for composite video, a set of three RCA plug jacks for component video, and a DB-15 VGA connector that can connect to a computer and also serves for component video and SCART. In addition, there's a 12V trigger connector that you can use, for example, to lower a retractable screen automatically when you turn on the projector, and then automatically retract the screen when you turn the projector off.

The HD20 handled our suite of video tests reasonably well at most input resolutions, the exception being standard-definition video, aka 480i. When watching video using 480i over a composite video connection, we saw some slight posterization (shading changing suddenly where it should change gradually) and a slight loss of detail in dark areas. We didn't

see any motion artifacts, however, and skin tones were generally good. Depending on how demanding you are, you may or may not consider the HD20 image acceptable with a 480i signal. Switching to an HDMI connection and 480p—the resolution for standard DVDs—improved the image dramatically. In addition to a somewhat crisper image, the colors were much richer.

Overall, the HD20 delivers an impressively good image for a surprisingly low price, with a balance that right now is hard to match, much less beat. It's easy to recommend to anyone who isn't sensitive to the rainbow effect. And even for those who are sensitive to it, the projector is worth a try. Just make sure you can return it without paying too high a restocking fee if you find that the effect shows up more often in your viewing than you're willing to accept.

— Victor Philip Ortiz

## PROJECTION TECHNOLOGIES DEMYSTIFIED

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Projectors can be broadly categorized into two technologies, DLP (Digital Light Processing) or LCD (Liquid Crystal Display). Or so you thought. If you already find yourself bemused, befuddled and bewildered by the amount of different home cinema technologies now out there in the market place, we've got some bad

news for you – it's going to get worse (or better, depending on how you look at it). The choice in the projection world is no longer merely a matter of picking between DLP or LCD, as there are now three more acronyms for you to get your head around: LCOS, SXRD and D-ILA. A bit about the new technologies.

### LCOS

LCOS, or Liquid Crystal on Silicon to give it its full name, is arguably the 'mommy' of the new projection technologies. LCOS technology is based around liquid crystals on a reflective mirror substrate, with those crystals opening or closing depending on whether the picture wants the light to be reflected from the mirror or blocked off.

