

# Three Fast Facts about Our Fastest, Highest Resolution Chipset for Industrial Applications

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When it comes to spatial light modulation for industrial applications including [3D printing](#) and [direct imaging lithography](#), speed is king. It's simple, really: The faster developers can create products, the faster they can successfully go to market.

That's why we've developed the new [DLP9000X](#) chipset, our highest speed and resolution chipset. So you're probably asking, what does this mean for me? Here are three fast facts highlighting the benefits.

**Fast and faster.** With a streaming pixel speed of more than 60 gigabits per second (Gbps), the DLP9000X, which consists of the DLP9000X digital micromirror device (DMD) and the newly available [DLPC910](#) controller, delivers more than five times faster total exposure than other chipsets in the TI DLP® Products portfolio. It also offers an exceptional pixel loading speed for real-time, continuous, high bit-depth patterns resulting in detailed images.

**Mirrors Matter.** The DLP9000X is equipped with more than 4 million micromirrors in a 2,560 by 1,600 digital micromirror array, reducing print heads by 50 percent compared to the DLP9500 chipset. It also supports print feature sizes of less than 1  $\mu\text{m}$ . By comparison, the DLP9500 chipset has more than 2 million micromirrors.

**Flexibility First.** Because the DLP9000X is optimized for wavelengths between 400 and 700 nm, it can support a variety of photosensitive resins and materials. And because the DLP9000X uses a similar architecture to the [DLP Discovery D4100 kit](#), developers can maximize their investment in the DLP9500 and DLP7000 platforms. The included random row micromirror loading can be used in flexible light modulation use cases.

The DLP9000X chipset is now available for [purchase](#) and includes the DLP9000X DMD, DLPC910 controller and [DLPR910 PROM](#). The DLP9000X is available in a 355-pin hermetic FLS package, the DLPC910 controller is available in a 676-pin ball grid array (BGA) package and the DLPR910 PROM is available in a 48-pin BGA package.

For more information, download a free TI Designs reference design on the DLP9000X chipset, [TIDA-00570](#), which includes reference schematics and a layout to help customers develop their own system. You can also visit the Advanced Light Control [Getting Started](#) page to begin working with DLP technology. We encourage you to join the [DLP forum](#) in the TI E2E™ Community to search for solutions, get help, share knowledge, and solve problems with fellow engineers and TI experts, and also visit the [DLP Design House Network](#).

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