Technical Article How to Quickly Prototype Your Pico Display Application by Selecting the Right Optical Module



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Texas Instruments DLP[®] Pico[™] technology can enable a broad number of applications, ranging from headmounted displays (HMD) to mobile smart TVs. As many hardware developers with limited knowledge in optics would like to quickly and easily integrate DLP Pico display technology in their design, TI has provided design tools available at TI.com that include components, evaluation modules, software, reference designs and technical documentation to help them get started. In addition, TI has fostered an extensive supply chain of production-ready optical modules that include all the components necessary to project an image, including the LED light source, optical components and the digital micromirror device (DMD).



In an effort to make it easy for a developer to acquire these modules, WPI, a supplier that distributes optical modules incorporating DLP Pico technology, has developed an online platform that allows customers worldwide^{*} to purchase optical modules. The WPI website includes a range of optical modules comprising of WVGA, WXGA and HD resolutions. Visit TI.com to find links to the WPI site.

There are at least two use cases that customers can benefit from by purchasing optical modules. The first case allows a customer to quickly prototype their design. A developer can lay out a PCB board that includes the DMD display controller, power management and any processing required for the application. In addition, a developer can focus on the application while leveraging a production-ready optical engine. The second case allows the developer to purchase optical engines for production testing or even manufacturing.

In the end, having a path to production-ready optical modules helps developers incorporate DLP technology without needing optics expertise.

We invite you to review the growing number of optical modules available. Once you've selected the right optical module for your design, you're on your way to integrating DLP Pico projection display technology into your application. Check out these additional resources to get started:

- Getting Started with DLP Pico[™] Technology White Paper
- The Product Portfolio for DLP Pico technology
- · View Optical Modules available for online purchase from suppliers

Beyond optical modules readily available online, DLP Products maintains a robust ecosystem of optical module companies manufacturers with expertise across a variety of chipsets from nHD to 1080p resolution. In addition, DLP Products has a network of design houses that support DLP Pico products as well as advanced light control applications including 3D printing, spectroscopy, 3D machine vision and lithography.

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See WPI website for details.

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