TI DLP® 1080p Full High-Definition Display Chipsets



Developers looking to integrate 1080p full High-Definition (HD) display technology can use TI DLP® chipsets. The chipsets are highly programmable and deliver 1080p full HD resolution. The 1080p full HD chipset comes with advanced features such as warping and blending to provide quality products and ease of development.

About the DLP® 1080p Full HD Chipset

The 1080p full HD chipset is comprised of multiple digital micromirror devices (DMD), digital controllers, and power management devices. These devices can be combined with many different optical and mechanical components to meet a diverse set of performance-level requirements. The chipset offers versatility for numerous applications that require full HD resolution. The chipset is compatible with virtually any light source, including lasers, laser phosphor, and LEDs.

1080p Full HD Resolution

- The ultra-fast switching speed of the DMD mirrors enables 2.07 million pixels to be displayed
- Cost-effective and high-quality display experience for a broad audience

High-Performance Imager

- High ANSI contrast reveals fine lines and details for readability
- With up to a 240-Hz refresh rate, 1080p full HD provides a smoother and more responsive system with higher display accuracy
- Reliable lifetime performance with no color degradation over time

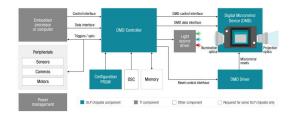


Figure 1. 1080p Full HD Chipset Design



Figure 2. Office Room Display Using 1080p Full HD DLP® Technology

Featured Applications

- Versatile use cases: used in common applications from office projectors to gaming
- Additional use cases: Home theaters, education, digital signage, smart displays, and interactive displays

DLP® Products Third-Party

- DLP® products work with a variety of optical module manufacturers that can provide a compact optical module with the DMD to accelerate development
- DLP® Products third-party providers have experience with DLP® technology. These companies can design or manufacture optics, hardware, software and complementary technology.

Robust Ecosystem

DLP® Product Design and Development; Start exploring DLP® technology by finding an evaluation module (EVM) to assess a digital micromirror device (DMD) and controller with the latest firmware and software tools. Get fast and reliable technical support directly from our engineers to help solve any issues during development. Also, use our extensive partner ecosystem to get your product to market faster.

See *DLP*[®] *Products* for more information.

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATA SHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, regulatory or other requirements.

These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to TI's Terms of Sale or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.

TI objects to and rejects any additional or different terms you may have proposed.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265 Copyright © 2023, Texas Instruments Incorporated