

TI DLP® WUXGA and 4K+ High-Definition Display Chipsets



Introduction

WUXGA is currently the leading resolution in 5000+ lumen spaces throughout the global projector marketplace. A newer resolution, 4K+ or WQUXGA, is gaining traction due to a doubled pixel count while maintaining the same aspect ratio as WUXGA. To integrate these advanced display technologies into products, developers can leverage TI DLP chipsets, which feature innovative capabilities like warping and blending to facilitate smooth product development and high-quality output.

About the DLP WUXGA and 4K+ chipsets

The WUXGA and 4K+ chipset are comprised of [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. For light sources, various option can be used, including lasers, laser phosphor, and LEDs.

WUXGA and 4K+ Resolution

- WUXGA offers a 16:10 aspect ratio, larger than 16:9 aspect ratios commonly seen in 1080p/4K UHD resolution, enabling 1920x1200 pixels.
- 4K+ brings a new 16:10 resolution to the table, doubling WUXGA for 3840x2400 pixels.

Table 1. DLP® Technology WUXGA and 4K+chipsets

Resolution	DMD + Controller	Brightness	Description
WUXGA	DLP481RE + DLPC8445 <i>new!</i>	Up to 7.5klm	Smallest, best value solution with new SST pixel technology
	DLP670RE + DLPC4430	Up to 9klm	Mid-size, strong image quality solution
	DLP800RE + DLPC4430	Up to 9klm	Premium image quality, high efficiency
	DLP801RE + DLPC4430	Up to 15.5klm	Ultra-premium quality, high efficiency, high-brightness solution
4K+	DLP481XE + DLPC8455 <i>new!</i>	Up to 7.5klm	Smallest, best value solution with new SST pixel technology
	DLP801XE + DLPC4420 x 2	Up to 15.5klm	Ultra-premium quality, high efficiency, high-brightness solution

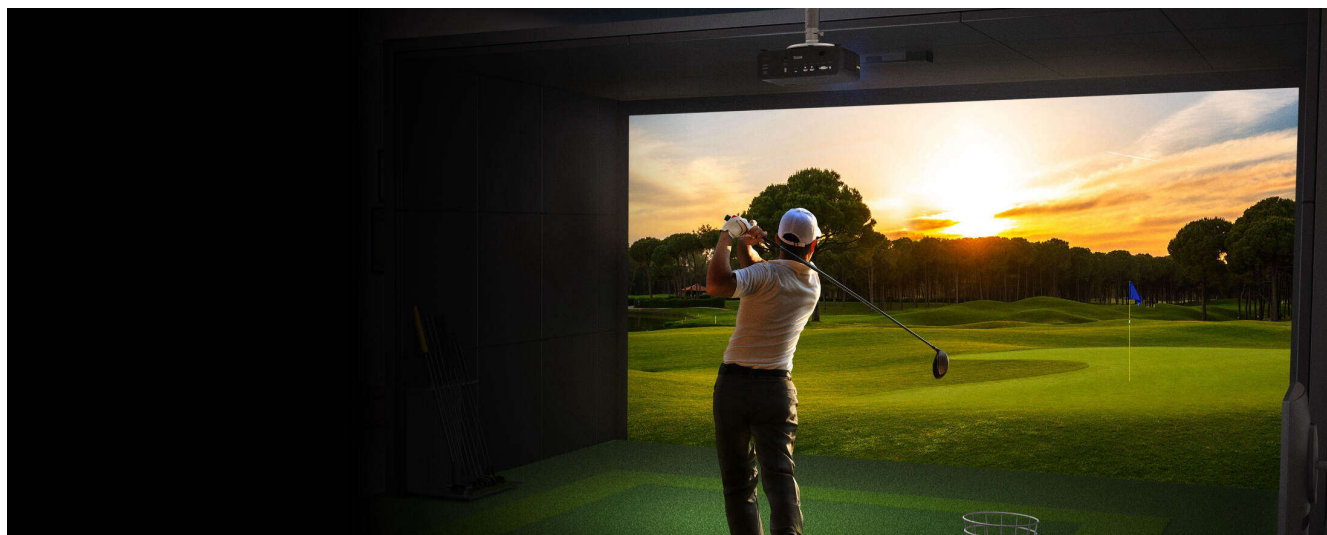


Figure 1. Golf Simulator Projector Using DLP Technology

High-Performance Imager

- High ANSI contrast reveals fine lines and details for excellent readability
- With up to a 240Hz refresh rate, WUXGA provides a smoother and more responsive system with higher display accuracy
- With up to a 60Hz refresh rate for 9.2 million pixel, 4K+ provides clear, detailed images.
- Reliable lifetime performance with no color degradation over time

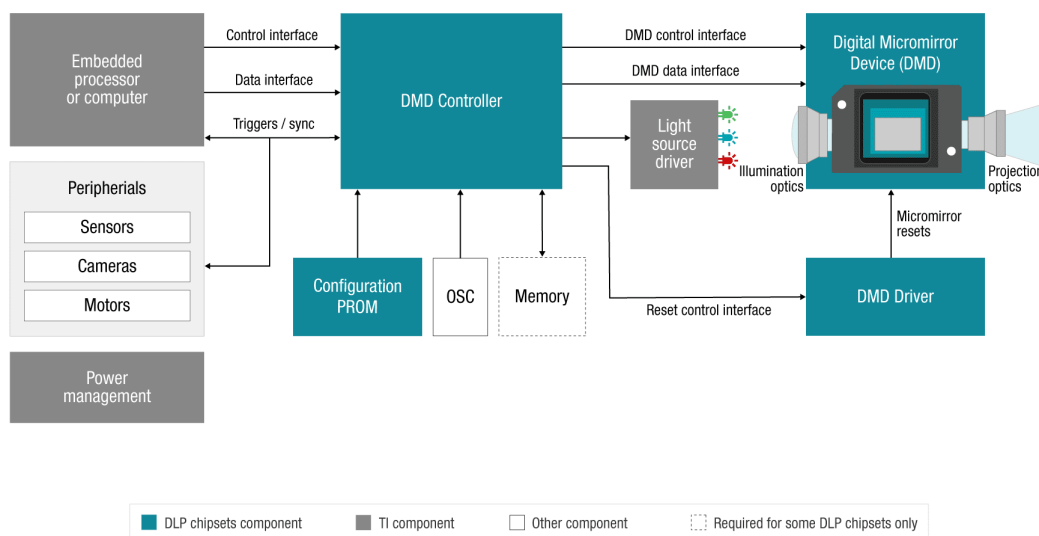


Figure 2. 4K WUXGA/4K+ Chipset Design

Featured Applications

- [Higher Education and Auditoriums](#)
- [House of Worship](#)
- [Corporate/Business](#)
- Projection Mapping
- Museums/Exhibits
- Golf Simulators

DLP® Products Third-Party and Ecosystem

- 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.
- [DLP Product Design and Development](#); Start exploring DLP® technology by finding an evaluation module (EVM) to easily 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.

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