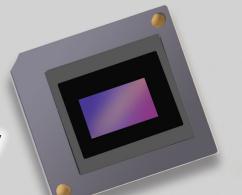
# TI DLP® 4K Ultra High Definition (UHD) Display Chipset

Helping to deliver high ANSI contrast and perfect convergence for sharp, high quality 4K UHD images





Developers looking to integrate 4K UHD display technology can utilize the Texas Instruments DLP 0.66-inch 4K UHD chipset. Highly programmable and delivering full 4K resolution, the chipset enables numerous display solutions, including: laser TV, home theater, education and corporate projectors, digital signage, smart lighting and more.

#### About the DLP 4K UHD chipset

The chipset consists of the DLP660TE digital micromirror device (DMD), DLPC4422 digital controller, and DLPA1000 power management device. These devices can be combined with many different optical and mechanical components to meet a diverse set of performance level requirements. The chipset offers great versatility for numerous applications needing ultra-high definition.



Home theater display using 4K UHD DLP technology

### **Key benefits**

## 4K UHD resolution

## Ultra-fast switching speed

- The fast switching speed of the DMD enables 8.3 million pixels to be displayed on the screen using 4.15 million micromirrors
- Resolution delivered is equal to combining four 1080p displays

# High performance Imager

- High ANSI contrast
  Reveals fine lines and
  details for excellent
  readability
- Alignment-free
- Optical engine designs using a single DLP chip are inherently aligned for perfect convergence, resulting in sharp, detailed images

### Flexible technology

- High thermal capability
- Enables numerous display products requiring high brightness solutions
- Light source agnostic
- Compatible with virtually any light source, including lasers, laser phosphor, LEDs and lamps

#### Robust ecosystem

- Optical modules
- Production-ready optical modules from third party companies can speed up product development
- Tl.com support Tools, technical documents and online community available to address technical questions

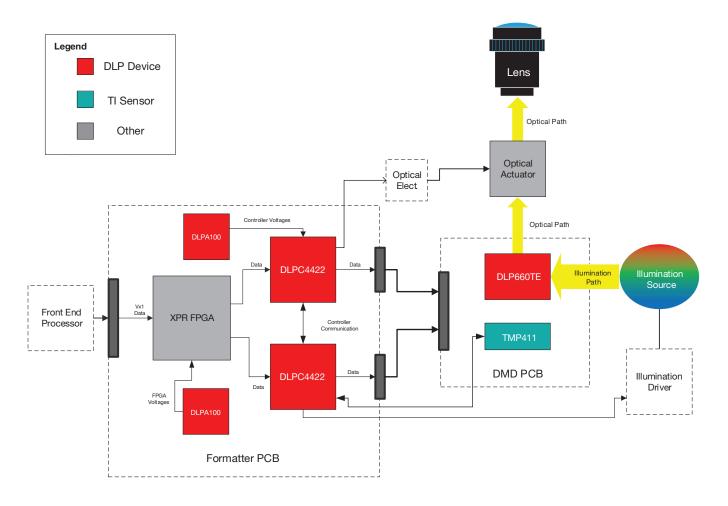
#### Production-ready optical modules

To aid developers, TI maintains a robust ecosystem, including independent companies with expertise in designing and manufacturing production-ready optical modules. An optical module is a compact assembly that includes a DLP DMD, an LED-based illumination source, optics and associated mechanics.



## TI DLP 4K UHD technology

#### Projector design utilizing 4K UHD DLP chipset



Click here for more information on the 4K UHD chipset.

#### IMPORTANT NOTICE FOR TI DESIGN INFORMATION AND RESOURCES

Texas Instruments Incorporated ('TI") technical, application or other design advice, services or information, including, but not limited to, reference designs and materials relating to evaluation modules, (collectively, "TI Resources") are intended to assist designers who are developing applications that incorporate TI products; by downloading, accessing or using any particular TI Resource in any way, you (individually or, if you are acting on behalf of a company, your company) agree to use it solely for this purpose and subject to the terms of this Notice.

TI's provision of TI Resources does not expand or otherwise alter TI's applicable published warranties or warranty disclaimers for TI products, and no additional obligations or liabilities arise from TI providing such TI Resources. TI reserves the right to make corrections, enhancements, improvements and other changes to its TI Resources.

You understand and agree that you remain responsible for using your independent analysis, evaluation and judgment in designing your applications and that you have full and exclusive responsibility to assure the safety of your applications and compliance of your applications (and of all TI products used in or for your applications) with all applicable regulations, laws and other applicable requirements. You represent that, with respect to your applications, you have all the necessary expertise to create and implement safeguards that (1) anticipate dangerous consequences of failures, (2) monitor failures and their consequences, and (3) lessen the likelihood of failures that might cause harm and take appropriate actions. You agree that prior to using or distributing any applications that include TI products, you will thoroughly test such applications and the functionality of such TI products as used in such applications. TI has not conducted any testing other than that specifically described in the published documentation for a particular TI Resource.

You are authorized to use, copy and modify any individual TI Resource only in connection with the development of applications that include the TI product(s) identified in such TI Resource. NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER TI INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT OF TI OR ANY THIRD PARTY IS GRANTED HEREIN, including but not limited to any patent right, copyright, mask work right, or other intellectual property right relating to any combination, machine, or process in which TI products or services are used. Information regarding or referencing third-party products or services does not constitute a license to use such products or services, or a warranty or endorsement thereof. Use of TI Resources may require a license from a third party under the patents or other intellectual property of TI.

TI RESOURCES ARE PROVIDED "AS IS" AND WITH ALL FAULTS. TI DISCLAIMS ALL OTHER WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, REGARDING TI RESOURCES OR USE THEREOF, INCLUDING BUT NOT LIMITED TO ACCURACY OR COMPLETENESS, TITLE, ANY EPIDEMIC FAILURE WARRANTY AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

TI SHALL NOT BE LIABLE FOR AND SHALL NOT DEFEND OR INDEMNIFY YOU AGAINST ANY CLAIM, INCLUDING BUT NOT LIMITED TO ANY INFRINGEMENT CLAIM THAT RELATES TO OR IS BASED ON ANY COMBINATION OF PRODUCTS EVEN IF DESCRIBED IN TI RESOURCES OR OTHERWISE. IN NO EVENT SHALL TI BE LIABLE FOR ANY ACTUAL, DIRECT, SPECIAL, COLLATERAL, INDIRECT, PUNITIVE, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES IN CONNECTION WITH OR ARISING OUT OF TI RESOURCES OR USE THEREOF, AND REGARDLESS OF WHETHER TI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

You agree to fully indemnify TI and its representatives against any damages, costs, losses, and/or liabilities arising out of your non-compliance with the terms and provisions of this Notice.

This Notice applies to TI Resources. Additional terms apply to the use and purchase of certain types of materials, TI products and services. These include; without limitation, TI's standard terms for semiconductor products <a href="http://www.ti.com/sc/docs/stdterms.htm">http://www.ti.com/sc/docs/stdterms.htm</a>), evaluation modules, and samples (<a href="http://www.ti.com/sc/docs/sampterms.htm">http://www.ti.com/sc/docs/sampterms.htm</a>).

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265 Copyright © 2017, Texas Instruments Incorporated