

## Dangbei Mars Pro Review: the advantage of ALPD tech in home theater projector



**New York City, New York Sep 14, 2022 ([Issuewire.com](https://www.issuewire.com)) - [Dangbei Mars Pro](#) is known for its stunning detailed image quality and incredible hyper brightness. Well, the laser light source is also another unavoidable point. **The sharpness of 4K DLP and the brightness of a laser light ALPD engine make a potent big-screen combination.****

## What is ALPD projection technology?

ALPD, namely the fluorescent laser technology, is used for image display based on laser-excited fluorescent materials and mixed multi-color laser lines. ALPD is the most critical core technology for high-brightness image display, using GaN-based blue laser to excite the movement of fluorescent materials to produce one or more primary colors for image display.

Conventional image display devices use light sources such as HID and other high-brightness bulbs to display color images. These bulbs have a short life span, low efficiency, contain toxic materials, and other drawbacks. Due to their high efficiency and long life, LEDs have been rapidly used in image display devices since their invention. However, LED is limited by a large amount of optical expansion. Its brightness cannot provide the high brightness display requirements and is even inferior to some traditional high brightness lamps, such as high-pressure mercury lamps used in traditional projectors.

**And laser has excellent directionality.** The laser spot can be focused into a tiny (down to a few microns in diameter) spot. Its brightness is not only 100~1,000 times higher than LED's but also much higher than traditional high-brightness xenon lamps. However, its high cost, low electro-optical conversion efficiency, and reliability greatly limit the application of lasers in the field of display.

ALPD fluorescence laser technology retains the inherent advantages of traditional laser with high brightness while adopting the basic technology route of blue light combined with fluorescent material similar to mainstream LED lighting and display, innovatively invented remote rotating fluorescent device, which cleverly solves the problem of thermal quenching of fluorescence conversion and still maintains high conversion efficiency under the laser excitation of the high-density laser. GaN blue laser and YAG and nitride fluorescent materials are used at the same time, effectively continuing the advantages of LED such as high reliability and long life. ALPDTM laser light source has the advantages of both traditional laser and LED, and solves the shortcomings of both, which is a disruptive new category of the light source and a breakthrough in the history of lighting technology.

## What fields can the ALPD be applied to?

As a new light source technology, the ALPD can be applied to various use like in the home, cinema, classroom, commercial display, etc.

Blessed with ALPD laser tech, [Dangbei Mars Pro](#) excels in brightness, making it easy to handle even in the daytime environment. A visual feast is on the horizon when ultra-clear 4K and theater laser technology is cleverly fused.

## What are the advantages of ALPD Tech in home theater projectors?

- High light efficiency· environmental protection and energy saving

The overall light efficiency of the ALPD digital projector is much higher than other light sources.

- High brightness  
High light efficiency determines high brightness, with ALPD® technology, the brightness is up to 60,000lm, maintaining a leading position in the world
- Wide color gamut  
Phosphor + laser, the color performance reaches DCI cinema level standard, and the maximum

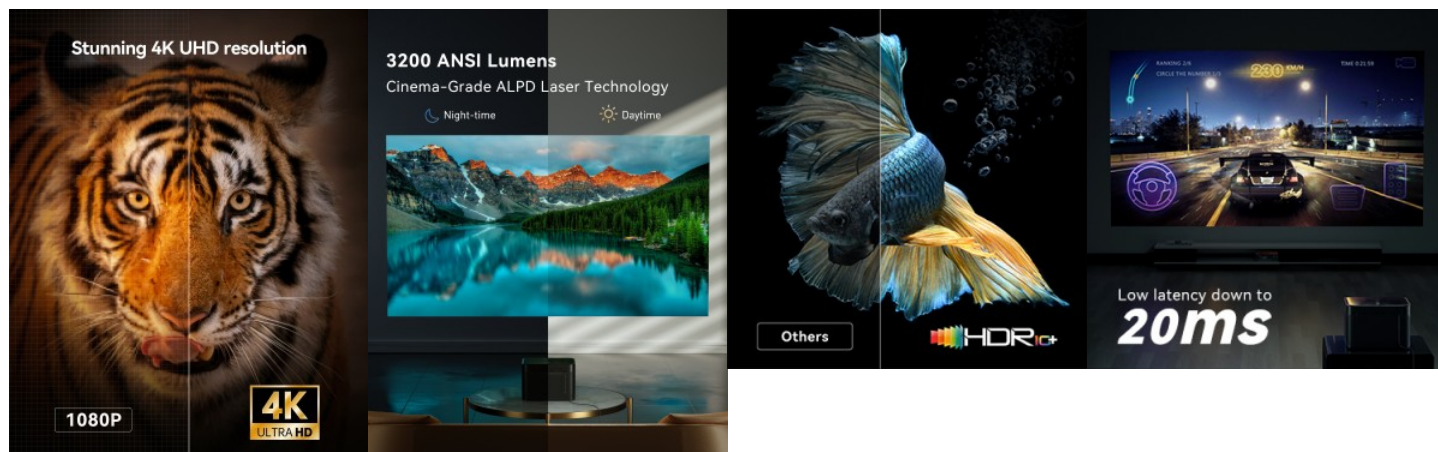
color gamut reaches 98.5% of Rec.2020

- High light utilization  
High light utilization, high contrast 2500: 1, reach cinema standards
- High reliability

Through the aging test, dustproof test (verified to be IP5X dustproof rating), heat dissipation test, structural strength test, high temperature, and high humidity, and other experimental tests

To sum up, ALPD laser light source projection technology is the leading laser phosphor display technology in the projection industry. ALPD uses GaN-based blue laser light to excite the movement of fluorescent materials to produce one or more primary colors to achieve image display, which is the core key technology for high brightness image display. ALPD technology has a series of characteristics such as high brightness, long life, low cost, small size, low energy consumption, and good image quality, which is the world's leading laser light source projection technology solution.

[?]Part of the content is referred to [ALPD<sup>®</sup>Technology - APPOTRONICS](#))



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