

迪恒  
股份

# DU16K

# LASER PROJECTOR

天琴座系列激光工程投影机  
做文旅 更轻松



## 配备电动镜头, 投射比涵盖0.3~9.3镜头, 灵活应用于各种空间 The projection ratio covers lenses ranging from 0.3 to 9.3,

配备电动镜头, 支持电动位移、电动聚焦、电动变焦。可更换镜头覆盖投射比: 0.3/0.35-0.39/0.361/0.47-0.49/  
0.48/0.5/0.6/0.63/0.65-0.75/0.7/0.75-0.95/0.8/0.85-1.35/0.85-1.45/0.9/0.95-1.22/1.2-2.0/1.22-1.52/  
1.52-2.92/2.90-5.50/5.0-8.0/5.5-9.3



Equipped with electric lens, supporting electric displacement, electric focusing, and electric zoom  
Replaceable lens coverage projection ratio: 0.3/0.35-0.39/0.361/0.47-0.49/0.48/0.5/0.6/0.63/0.65-0.75/  
0.7/0.75-0.95/0.8/0.85-1.35/0.85-1.45/0.9/0.95-1.22/1.2-2.0/1.22-1.52/1.52-2.92/2.90-5.50/5.0-8.0/5.5-9.3

## Product parameters 产品参数

### 天琴座系列-DU16K工程激光投影机 Lyra series-DU16K Laser Engineering Projector

型号(Model): DU16K	投影技术(Projection Technology): DLP
显示芯片(Display chip): 0.67" DMD	分辨率(Resolution): 1920 X 1200 (16:10) 兼容4K信号输入
光源(Light Source): MCL激光光源	光源寿命(Light Source Lifetime): 20000 hour
中心亮度(Center brightness): 16000流明(lumen)	3D Warping(3D Warping): 支持几何校正后的异形主动3D立体
ISO亮度(ISO brightness): 15500 ISO流明	对比度(Contrast Ratio): 50,000:1 (动态), 3,000,000:1 (极致黑)
画面尺寸(Screen Size): 30"~300"	2x360°投影(2x360° Projection): 支持 support
融合功能(Fusion Function): 支持 support	噪音值(Noise Level): 40分贝 (Typical) 37分贝 (Eco)
HDMI 2.0(HDMI 2.0): 支持4K输入	3D(3D): 支持主动3D且带3D SYNC同步接口

选配镜头(Optional Lens): 0.3/0.35-0.39/0.361/0.47-0.49/0.48/0.5/0.6/0.63/0.65-0.75/0.7/0.75-0.95/0.8/0.85-1.35/0.85-1.45/  
0.9/0.95-1.22/1.2-2.0/1.22-1.52/1.52-2.92/2.90-5.50/5.0-8.0/5.5-9.3

标镜画面位移(Image Displacement): 垂直: ±50% / 水平: ±15% (针对半画面位移); 垂直: ±100% / 水平: ±30% (针对全画面);  
For half-screen displacement: Vertical: ±50% / Horizontal: ±15% For full-screen: Vertical: ±100% / Horizontal: ±30%

几何校正模式(Geometric Correction Mode): 水平垂直梯形矫正, 校正点拉伸  
Horizontal and vertical keystone correction, correction point stretching

校正点数量(Number of Correction Points): 2x2 / 3x3 / 5x5 / 9x9 / 17x17

融合区范围(Fusion Zone Range): 上边缘/下边缘/左边缘/右边缘: 0% ~ 50%  
Upper edge/Lower edge/Left edge/Right edge: 0% ~ 50%

控制协议(Control Protocol): PJLink / AMX / Extron / TCP / RS232

HDBaseT(HDBaseT): 可以实现10.2 Gbps的HDMI 1.4传输(包括 HDCP)和100Mbps以太网  
It can achieve 10.2 Gbps HDMI 1.4 transmission (including HDCP) and 100 Mbps Ethernet.

输入接口(Input Interface): HDMI 2.0 x2, HDBaseT x 1, DVI - D x1, 3G-SDI\*1 3D-Sync in x1

输出接口(Output Interface): HDMI Out X 1, 3D SYNC OUT\*1

其他接口(Other Interfaces): LAN(RJ45)\*1, WIRED IR\*1, RS-232 X 1, 12V OUT\*1, 5V/2a USB-A\*1

电源输入电压(Power Input Voltage): 100-220V AC ±10%, 50/60Hz

整机功率(Total Power Consumption): 895W+/-15% (max)

工作温度(Operating Temperature): 0°C ~ 40°C

工作湿度(Operating Humidity): 10%~85% RH

存储温度(Storage Temperature): -10°C ~ 60°C

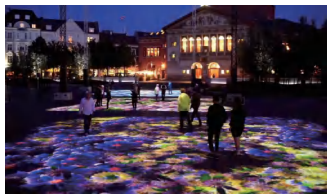
存储湿度(Storage Humidity): 5%~90% RH

机身尺寸(不含镜头)(Body Dimensions (excluding lens)): 484 mm (W) x 532mm (D) x 200 mm (H)

机身重量(不含镜头)(Body Weight (excluding lens)): 21.3kg;  
The body weighs approximately 21.3kg;

# Single DLP projection technology

## 单DLP投影技术, 搭载0.67寸DMD芯片



和3DLP投影机相比, 单DLP投影机只包含一片DMD, 投影机结构更简单, 生产成本更低。只采用一片DMD, 最明显的优点就是投影机外型小巧, 投影机可以做得很紧凑, 便于提升、运输和安装, 这对舞台租赁和现场活动等应用很重要。

单DLP投影机更利于做光学密封, 密封的光机可以有效消除灰尘或雾气的影响, 可在相对恶劣的环境下不间断运行, 降低投影机在使用寿命期间的维护成本。

Compared to 3DLP projectors, a single DLP projector only contains one DMD, making the projector structure simpler and production costs lower. The most obvious advantage of using only one DMD is the compact appearance of the projector, which can be easily lifted, transported, and installed. This is important for stage rental and on-site activities.

A single DLP projector is more conducive to optical sealing. Sealed optical machines can effectively eliminate the influence of dust or mist, and can operate continuously in relatively harsh environments, reducing the maintenance cost of projectors during their service life.

## 强大的色彩管理以及HSG调色功能 Powerful color management and HSG color matching function

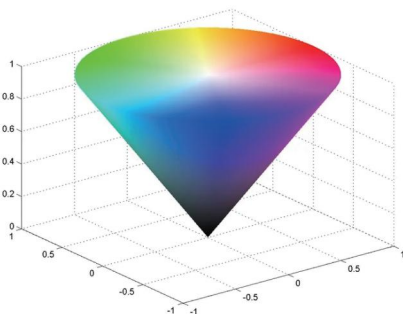
投影内置了色温调节功能, 用户可以对色彩的冷暖轻松调节, 也内置了强大的HSG功能, 用户可以对红色/绿色/蓝色/青色/洋红色/黄色/亮度/饱和度进行精细的调节, 对白色光的RGB三原色进行精细调节, 进而消除多台投影机颜色表现上的差异。



调色前 Before color adjustment



调色后 After color adjustment



The projection is equipped with a foolproof color temperature adjustment function, allowing users to easily adjust the temperature of colors. It also has a powerful HSG function, allowing users to finely adjust the hue, brightness, and saturation of red, green, blue, cyan, magenta, and yellow, as well as the RGB primary colors of white light. Furthermore, eliminate the differences in color performance among multiple projectors.

## 信号源备份功能 Signal source backup function

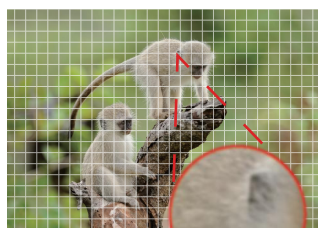
当投影机在做重要演示时, 信号传输线缆发生故障, 终端显示信号不输出。投影机预监测到信号终端后IC将指令传输到备用端口可立即启动应急显示。

When the projector is performing an important demonstration, the signal transmission cable fails and the terminal display signal does not output. After the projector pre monitors the signal terminal, the IC will transmit instructions to the backup port to immediately activate the emergency display.

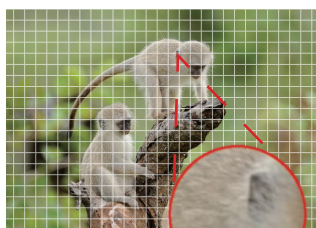


**搭载HDMI 2.0接口, 支持4K@60HZ输入**

**Equipped with HDMI 2.0 interface, supporting 4K@60hz input**



1920\*1080  
**1080P**



3840\*2160  
**4K**



7680\*4320  
**8K**

该产品搭载了HDMI 2.0接口, 可支持3840\*2160@60HZ信号的输入。该功能可以为单台投影或多台投影提供更高分辨率。该功能若搭配其他画面分割设备在前端多一次、二次分割, 最终可以提供8K乃至更高分辨率的点对点高清解决方案。

This product is equipped with HDMI 2.0 interface and can support 3840\* 2160@60hz Input of signals. This feature can provide higher resolution for single or multiple projectors. If this function is combined with other image segmentation devices for additional or secondary segmentation in the front-end, it can ultimately provide a point-to-point high-definition solution with 8K or even higher resolution.

### **HDMI级联功能 HDMI Cascading Function**

具备HDMI 级联功能, 级联输出接口可以复制一份相同的HDMI IN信号作为输出。该功能可以用来做预览回显。

With HDMI cascading function, the cascading output interface can copy the same HDMI IN signal as the output. This function can be used for preview echo.



### **采用远心光学架构 Adopting telecentric optical architecture**

采用远心光学架构设计, 相比非远心光学架构拥有更出色的色彩均匀度, 亮度均匀度表现, 更利于大屏融合的一致性表现。

Adopting a telecentric optical architecture design, compared to non telecentric optical architectures, it has better color uniformity and brightness uniformity performance, which is more conducive to the consistency performance of large screen fusion.



### **支持多种图像校正模式 Supports multiple image correction modes**

支持水平垂直梯形校正, 枕形校正, 四角调整, 几何校正。

Supports horizontal and vertical trapezoidal correction, pillow shape correction, corner adjustment, and geometric correction



### **配备HDBASET接口, 支持100米远距离传输 Equipped with HDBaseT interface, supporting 100-meter long-distance transmission.**

标配的HDBaseT接口, 可实现超过5类以上网线远程接收 HDMI、RS232C和网络控制信号。实现100米远距离传输。

The standard HDBaseT interface can remotely receive HDMI, RS232C and network control signals via network cables beyond Category 5, enabling 100-meter long-distance transmission.



### **支持双信号开窗显示或并排显示 Supports dual-signal windowing display or side-by-side display.**

产品支持多个输入信号。当有2个信号同时输入时, 产品支持2个信号同时以开窗方式显示或以并排方式显示。

The product supports multiple input signals. When two signals are input simultaneously, the product supports displaying the two signals simultaneously in a windowed mode or a side-by-side mode.

## 内置硬件融合以及自动平滑算法, 技术领先市场

内置纯硬件融合, 融合带宽度支持0%~50%可调节, 上下左右四边均可以设置融合。融合带宽度设置完成后, 画面会自动平滑算法, 无需在对伽马曲线做复杂设置。该自动平滑算法优于市场, 多台投影在融合带的处理上过渡更加自然。



## Built in edge fusion function

Built in pure hardware fusion, the fusion band width can be adjusted from 0% to 50%, and fusion can be set on all four sides, including the top, bottom, left, and right. After the width of the fusion band is set, the screen will undergo an automatic smoothing algorithm, without the need for complex settings on the gamma curve. This automatic smoothing algorithm is superior to the market, and the transition between multiple projections on the fusion band is more natural.

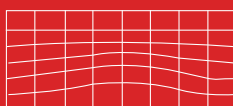
## 支持2\*2~17\*17格点校正

### Support 2 \* 2~17 \* 17 grid point correction

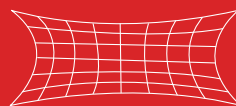
支持2\*2, 3\*3, 5\*5, 9\*9, 17\*17等网格点校正。几何校正的格点中心点可选择是否开启, 通过调节可实现单台曲面画面, 具备几何校正后的曲率调整功能, 降低几何校正对画面扭曲的影响;



网格密度可调  
Adjustable grid density



中心形变  
Central deformation



更高弹性拉伸  
Higher elastic stretch

Supports grid point correction for 2 \* 2, 3 \* 3, 5 \* 5, 9 \* 9, 17 \* 17, and more. The center point of the grid point for geometric correction can be selected to be turned on or off. By adjusting it, a single curved surface image can be achieved, with curvature adjustment function after geometric correction, reducing the impact of geometric correction on image distortion;

## 支持主动3D和被动3D

### Supports active and passive 3D

产品支持DLP LINK 主动3D, 支持常见的左右格式、上下格式、帧顺序格式、帧封装格式等。产品支持被动3D。

支持3D WARPING功能, 即投影在做了网格后画面形变情况下, 依然支持主动3D。

支持BLENDING 3D功能, 即投影在4台融合情况下, 可以通过3D SYNC接口实现3D同步, 确保多台融合的画面, 在左右眼切换时时同步的。

The product supports DLP Link active 3D, supporting common left and right formats, up and down formats, frame order formats, frame packaging formats, etc.

The product supports passive 3D.

Supports 3D Warping function, which means active 3D is still supported even when the image is deformed after being projected onto a grid.

Support Blending 3D function, which means that when projecting on 4 fused cameras, 3D synchronization can be achieved through the 3D sync interface, ensuring that the fused images of multiple cameras are synchronized when switching between left and right eyes.



## 支持4K HDR, 搭载“极致黑”技术, 对比度表现优异 Supports 4K HDR and is equipped with "Extreme Black" technology, delivering excellent contrast performance.

该产品还配备了工程机上罕见的HDR功能。通过提供更多的动态范围和图像细节来提升画面的对比度。该产品可以设置“极致黑”模式, 该模式下画面的暗部表现更深邃, HDR和极致黑的双重加持, 产品的对比度表现更优秀, 画面的层次感更丰富。“极致黑”功能还可以用来很好地解决POM区域漏光问题

The product is also equipped with an HDR function, which is rare in engineering machines. It enhances the contrast of the picture by providing more dynamic range and image details. The product can be set to the "Extreme Black" mode, in which the dark parts of the picture appear deeper. With the dual support of HDR and Extreme Black, the product shows better contrast and richer picture layers. The "Extreme Black" function can also be used to effectively solve the light leakage problem in the POM area.

## 侦测信号开机与侦测电源开机功能 Signal detection power-on and power supply detection power-on functions

投影机可以在菜单中设置侦测电源开机以及侦测信号开机。通过电源的通断或输入信号的有无来控制投影机的开机或关机, 在集成系统中, 这提供了更灵活的控制方案。

The projector allows users to set up power detection power-on and signal detection power-on functions in the menu. It controls the projector's power on/off through the on/off status of the power supply or the presence/absence of input signals, providing a more flexible control solution in integrated systems.

## 光源备份技术 Light Source Backup Technology

当投影机在做重要演示时, 其中部分MCL激光二极管模组发生故障, 其他激光器仍可继续工作。

When the projector is conducting an important presentation, if part of the MCL laser diode modules fail, the other laser modules can still continue to work.

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