



ALPD[®] Laser Light Source

NEC Platforms

**INNOVATION DRIVING
THE VISUAL WORLD**

Any question, please feel free to contact us.

E m a i l: ALPDCINEMA@appotronics.cn

Website: <https://en.appotronics.com/ALPDcinema/>

About ALPD® Laser Light Source

ALPD® laser light source is built upon the Advanced Laser Phosphor Display (ALPD®) technology. It is mainly used to replace the xenon light source in digital projectors to increase the projection quality. It also exhibits the following characteristics:



Better image quality after using DCI certified ALPD® laser light source.



More energy-efficient and environment friendly compared with xenon lamps.



Long service life of 30,000 hours.



No need to replace xenon light source, free of bulb explosion risks and easy to maintain.



Improve the brightness to prolong the projectors' lifetime.

With the promotion of laser projection technologies, the ALPD® laser projection technology has been widely used globally. By November 2023, more than 35,500 sets of ALPD® laser light sources have been used in more than 7,000 cinemas in the world.

SPECIFICATIONS

Light Output	5,000 lm	
Product Model	X06-N900C	X06-N1000
Adapting Projector Model	NEC NC900C	NEC NC1000C
Projector Color Gamut Standard	98.5% of the Rec.2020.	
Laser Technology	ALPD 4.0	
Laser Projector Contrast	2000:1	
Wall Plug Efficiency (lm/W)	9.1 lm/W	
Cooling Technology	Air Cooling	
Dimensions Package (LxWxH)	700*670*325mm	700*670*325mm
Weight In Package	22kg ; (48.5 lbs)	
Power Consumption	550W	
Power Requirements	200-240VAC , 10A	
Operation Ambient Temperature	10~35°C	
Storage Ambient Temperature	-15-60°C	
Projector Light Output Color (typical)	Red: $x=0.680\pm 0.01$; $y=0.32\pm 0.01$	
	Green: $x=0.2650\pm 0.02$; $y=0.690\pm 0.02$	
	Blue: $x=0.150+0.01/-0.03$; $y=0.06 +0.02/-0.04$	
Communication	RJ45 internet port , Serial RS232(DB-9)	

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SPECIFICATIONS

Light Output	20,000 lm	33,000 lm
Product Model	X20-N2000	X35-N3200
Adapting Projector Model	NEC NCI200/2000	NEC NC3200/NC3240
Projector Color Gamut Standard	98.5% of the Rec.2020.	
Laser Technology	ALPD 4.0	
Laser Projector Contrast	2400:1	
Wall Plug Efficiency (lm/W)	12.5 lm/W	
Cooling Technology	Liquid Cooling	
Dimensions Package (LxWxH)	Laser Light source 795*750*430mm Power module 660*525*245mm Water module 1030*710*510mm	Laser Light source 795*750*430mm Power module 654*620*355mm Water module 1030*710*510mm
Weight In Package	Laser Light source 35kg ; (77.16 lbs) Power module 22kg ; (48.5 lbs) Water module 39kg ; (85.98 lbs)	Laser Light source 35kg ; (77.16 lbs) Power module 22kg ; (48.5 lbs) Water module 39kg ; (85.98 lbs)
Power Consumption	1800W	2900W
Power Requirements	200-240VAC , 20A	
Operation Ambient Temperature	10~35°C	
Storage Ambient Temperature	-15-60°C	
Projector Light Output Color (typical)	White: x=0.3140±0.006; y=0.3510±0.006	
	Red: x=0.680±0.01; y=0.32±0.01	
	Green: x=0.2650±0.02; y=0.690±0.02	
	Blue: x=0.150+0.01/-0.03; y=0.06 +0.02/-0.04	
Communication	RJ45 internet port , Serial RS232(DB-9)	

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CGV Cinemas Deployed Over 600 Sets of ALPD® Laser Light Source for High-Quality Projection

—CGV Cinemas

Cinema Name	CGV Cinemas
Hall Conditions and Effects :	
Upgrade Time ▶	2021
Upgrade Scale ▶	More than 600 Cinema Halls



Projection quality has always been the foundation of cinemas. ALPD® laser light source upgrade is considered as the most convenient and effective means to this aim. In 2021, CGV Cinemas, which is quite influential in the cinema industry, carried out ALPD® laser light source upgrades to over 600 Chinese cinema halls, almost achieving full laser projection and improving the viewing quality in an all-round way.

ALPD® Laser Light Sources Have Been Deployed in Batches By CGV Cinemas.

CGV Cinemas is a subsidiary of South Korea's CJ Group and is mainly engaged in cinemas operation. As an internationally famed professional cinema chain operator and high-end cinema brand, it has 530 high-end cinemas and over 3,900 high-quality screens around the world. By the end of May 2022, CGV has more than 100 cinemas in China.

To provide better projection quality for moviegoers, CGV took the lead in deploying the ALPD® laser light source upgrade as early as 2016. With good user experience, CGV decided to upgrade its more than 600 projectors in 2021. As of May 2022, the entire upgrade has been mostly completed.

Regarding the use of the ALPD® laser light source, the relevant person in charge of CGV said: "We have actually used the ALPD® laser light source for many years and it has indeed brought us a lot of convenience in terms of use. Besides better image quality, it's also easy to maintain. The cinema technicians no longer need to replace the xenon lamps on a regular basis as before, which has greatly helped us reduce the workload and improve work efficiency."



Laser-Assisted Smart Operations Builds Industry Model

— Jackie Chan Cinema (Wukesong Division)

Cinema Name	Jackie Chan Cinema (Wukesong Division)
Hall Conditions and Effects :	
Upgrade Time	▶ 2015
Upgrade Scale	▶ 14 Cinema Halls Upgraded



Application Highlights

As early as 2015, Jackie Chan Cinema (Wukesong Division) as the national box-office champion, took the first step in the all-around laser-based upgrades. It is well known that laser-based projection can help cinemas to improve projection quality. For Jackie Chan Cinema (Wukesong Division) with high requirements for both projection quality and management, the advantages of laser-based projection have been brought into full-play in daily operations.

Based on the advantages and characteristics of ALPD® laser projection technology such as no need to replace lamps and easy to maintain, it has realized the functions of smart projection. The daily projection work of the cinema is all performed by its managing staffs, saving labor costs to the greatest extent.



Laser-Assisted Unmanned Projection Helps Cinemas Save Operating Costs



In 2015, Jackie Chan Cinema (Wukesong Division) after winning the national box office championship for five consecutive years, started a laser-based upgrade journey and achieved all-around upgrade in 2016, striving to provide the ultimate viewing experience for movie fans. Later, as laser-based projection gradually became the mainstream, how to make better use of the advantages and characteristics of laser-based projection to help with cinema operations has proposed a new direction to explore. Compared with traditional light sources, the ALPD[®] laser projection solution not only has higher brightness and constant output, but also eliminate the hassle to change lamps, and it has an extreme long service life of 30000 hours. Considering these characteristics, the cinema creatively adopted an intelligent projection system to achieve a major breakthrough in unmanned projection. According to the relevant person in charge, the positions of all the professional projectionists in the cinema have been cancelled so far and the basic daily maintenance is completely handed over to the colleagues in the operational department, which helps to save labor costs to a large extent.

In addition, there are many halls in the cinema. Not only the daily maintenance has a large workload, but also the electricity cost of equipment operation is a large expense. Compared with traditional light sources, the power of laser-based ones applied to the same level of projection platforms is only half of the traditional ones, which means that the electricity costs will be saved by half. In the long run, laser-based projection will also helped the cinema to save operating costs largely.

There are numerous cinemas that apply laser-based projection technologies in China. Jackie Chan Cinema (Wukesong Division) is one of the few cinemas that hold bold and avant-garde management concepts in the industry. It has set an industry model for other cinemas in China in terms of using advanced technologies to improve operations.





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