APPOTRONICS®

Color
Superlative

All-New S Series Large Venue Projectors

■ Superior Color Performance

■ Easy to Install

■ Cinema Level Reliability

ALPD®

Superior Color Performance

◎ **13000-15000 lumens**

◎ **RGB primary-colors**

Appotronics has creatively applied the RGB primary-colors technology in 1-Chip DLP® system. The RGB 3-segment color wheel system has yield superior picture performance at 100% color brightness.

CLO=100%   CLO=70%   CLO=50%   CLO=30%

(RGB primary colors performance)

◎ **Color brightness comparison**

Color brightness is a key standard for consumers to evaluate the color performance of their projectors. Lower the color brightness, lower color reproducing capability a projector will have under the same brightness. The all new S series have 100% color brightness which surpass all competitors at the same level using similar platforms.
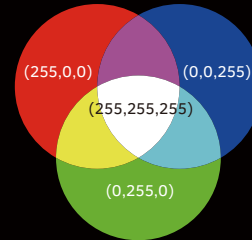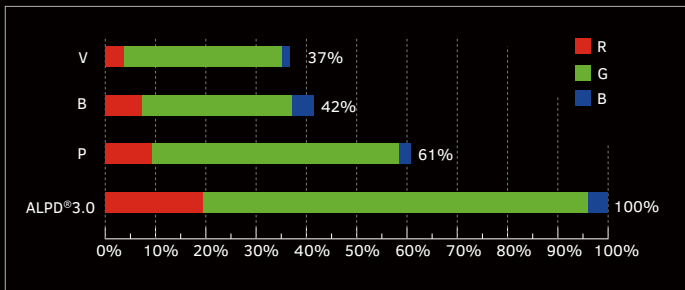
Color brightness = red field brightness+green field brightness+blue field brightness
Appotronics S Series : color brightness = white field brightness

◎ **Red ratio 16%-18%, higher saturation.**

Most 1-DLP laser projectors have only a red ratio around 7%. Resulted in gloomy red color reproduction. The S series large venue machines, based on the patented ALPD technology, yield over 16% red ratio.

TI Color Ratios Recommendation

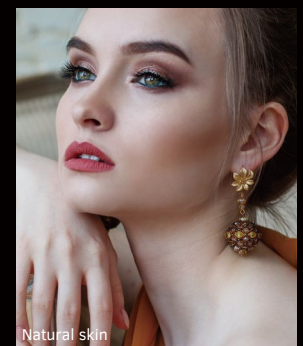| Color Ratios			
	Good	Medium	Fail
R / W	>10%	10%-6%	<6%
G / W	>40%	40%-30%	<30%
B / W	>3%	3%-1%	<1%
C / W	>43%	43%-31%	<31%
M / W	>13%	13%-7%	<7%
Y / W	>80%	80%-36%	<36%

Red Color Ratios=6~7%

Other Laser DLP(6500lm)

Red Color Ratios>10%

APPO Laser DLP(6500lm)

Red Color Ratios around 7%

Darker skin

Red Color Ratios around 16%

Natural skin

◎ **Coverage beyond Rec.709. Precise color rendition, higher stability**

Rec.709
other
APPOTRONICS
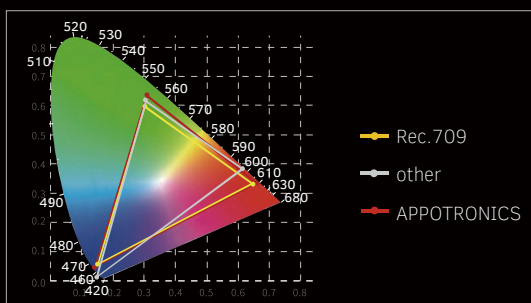
Red coordinates deviates from Rec.709 , orangish red

Red coordinates < Rec.709
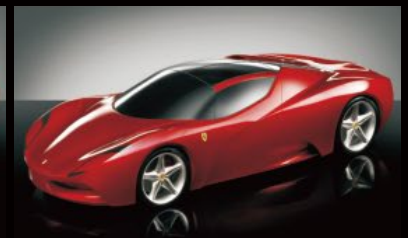
Red coordinates > Rec.709

Higher Flexibility in Installations

◎ Optional lens

6 optional lens can adapt to all kinds of installation environments. All lens have powered large scale vertical and horizontal shift.

0.5	0.62	0.8	1.23-1.97	2.9-5.5:1	4.68-7.96
Fixed	Fixed	Fixed	X1.6	X1.9	X1.7

◎ Light weight design

All-new light weight design has cut the weight of the system for over 9kg.

≤ 28.7kg

◎ Multiple color correction technology provides high uniformity in edge blending.

Before correction   After correction

◎ Built-in geometric correction and wrapping

Advanced geometric correction enables projection onto spherical, cylindrical and other non-flat surfaces.

Before correction   After correction
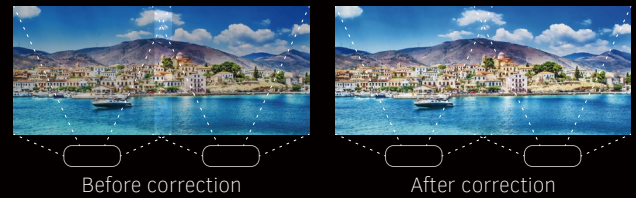
Cinema-Level Reliability

◎ All-sealed light engine provides complete dust free, filter free structure.

Dust 2.5mm	Dust 1.0mm	Dust free
IP3X	IP4X	IP5X
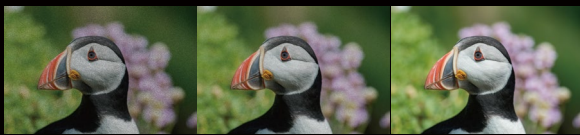
◎ All-new patented inner loop color wheel cooling system.

Air drive system

Color wheel module

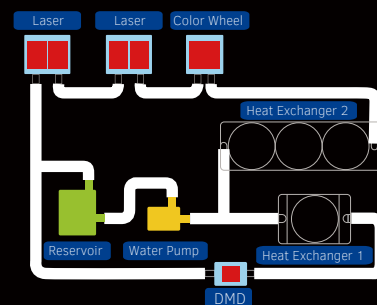High efficiency cooling materials

Cool air
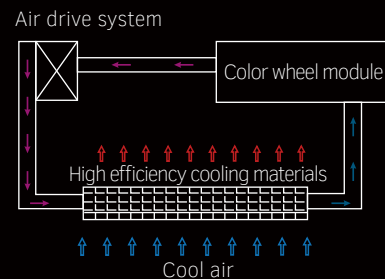
Note : Solid arrows indicating the internal air flow.
Dotted arrows indicating the ambient air flow.

◎ Life span over 20,000 hours.

- ◎ ALPD® is the only laser technology adopted and proven in, mission-critical situations, including cinemas, command centers and control rooms.
- ◎ The first 2,000 lumen laser video wall has run 7*24 since Oct, 2011.
- ◎ The first 20,000 lumen DCI ALPD® laser cinema projector has been put in service July 10th, 2014 and has amassed over 20,000 hours of use since.
- ◎ Duo optical engine backup to ensure true 7*24 ability.

◎ Powerful duo liquid cooling system provides stability even at 40℃.

Laser   Laser   Color Wheel

Heat Exchanger 2

Reservoir   Water Pump   Heat Exchanger 1

DMD

Double Liquid Cooling System

APPOTRONICS PROJECTOR SPECIFICATION

Model		AL-SU13KA	AL-SU15KA
Display Technology		DLP™x1, DLP™ projection system	
Panel Size		0.67"DMD	
Resolution		1,920×1,200, WUXGA	
Brightness Output①		13,000lm (ANSI) / 13,800lm (Center)	15,000lm (Center)
Light Source Type		ALPD® Laser (Laser type: Class1)	
Life Source Lifetime⑥		20,000h (Standard Mode)	
Contrast②		100,000 :1	
Uniformity		90%	
Display Gamut		REC.709	
Edge Blending		Horitonal & vertical edge blending	
Optional Lenses		0.5:1, 0.62:1, 0.8:1, 1.23-1.97:1 (Standard)	
Screen Size		40" ~ 600"	
Keystone		Vertical/Horizontal ±20°	
Optical Axis Shift		Vertical: ±100%, Horizontal: ±40%, powered	
Input Resolution		1,920x1,200 pixels (higher resolution will be scaled into 1,920x1,200 pixels)	
I/O		DVI × 1 / HDMI × 1 / DP × 1 / VGA × 1 / BNC × 5 / SDI × 1 / 3D SYNC × 2(in/out) / Wired Remote M3 × 2 (in/out) / HDbaseT × 1 (compatible with RJ45) / RS232 × 2 (in/out) / USB × 1 / IR 3D OUT × 1	
Power Supply		100-240V AC, 50/60Hz	
Power Consumption	Standard	1300W	1400W
	Stand by	Power saving 0.5W/ Stand by 7W	
Orientation		360°installation	
Noise		35dB (ECO)/39dB (Standard)	
Structure	Measurements③	(L×W×H) 24.4×21×7.1'' (620×535×180mm)	
	Weight④	13.05lbs (28.7kg)	
Working Environment	Temperature⑤	32°F~104°F (0-40°C) 95°F~104°F (35-40°C Eco Mode)	
	Humidity	20%~80% (no condensation)	

① Based on ISO21118 standard. ② Full white/full black. ③ Not including protruding parts. ④ Including standard lens. Average value. ⑤ Operation temperature will be set to 0°C~ 35°C when working under High Altitude Mode. Output of projector will be reduced to 50% if ambient temperature exceeds 35°C. ⑥ The output of the projector will have decreased by approximately 50% around this time. Data from accelerated lab simulations. Actualtime may vary according to the operating modes, environment and other user behaviors.

Appotronics Corporation Ltd.

Disclaimer:
1. All brightness/contrast values listed are based on ISO2118 standard and are the average value of all shipped products.
2. Time of lifespan listed shall not be used for warranty purposes. Actual replacement time may vary according to the operating modes, environment and other user behaviors.
3. All data listed are based on lab test values. Actual value may differ due to external environments.