TWP Series

Laser Projector

01 EXCELLENT PERFORMANCE DISPLAY

TRUE RESTORATION OF RGB COLORS

The newly upgraded P series products adopt a new generation of high color brightness display solutions, with an increase in the proportion of RGB single-color energy. Among them, the CL series products have a color brightness proportion of over 93%, approaching the color brightness of liquid crystal projection products, thus improving the issue of lower red energy in traditional DLP laser projection solutions. At the same time, the products that adhere to the DLP architecture maintain the high color reproduction characteristic of DLP products, truly achieving an ultimate display performance product that balances color reproduction and color brightness.

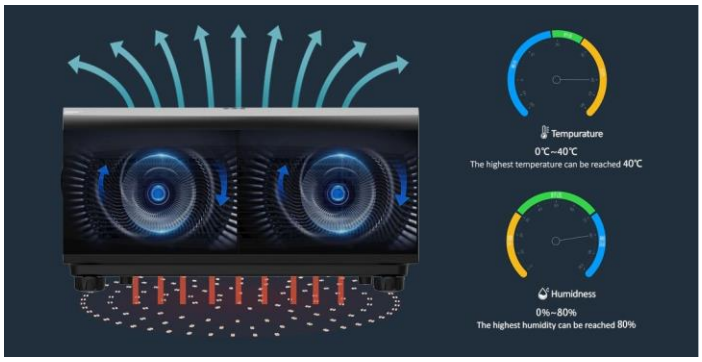
BRIGHT IMAGE DISPLAY

The product strictly adheres to the brightness requirements for projection products as stipulated in the ISO/ IEC 21118 standard. In addition to setting the production standards for projectors, it also more rigorously defines the measurement and testing standards, including the impact of light source power and noise on brightness and color. It also takes into account the influence of factors such as the lens on the projection image, ensuring that the optical performance of the products fully meets the market demand for high-quality display performance.

02 STABLE AND LASTING QUALITY

FULLY SEALED OPTICAL SYSTEM

Utilizing a fully sealed light source and optical system, the entire optical system truly achieves complete sealing. The product's light source part has been certified by a third-party testing institution at the provincial level or above, and the overall sealing and protection performance reaches a level of IP66 or higher. This completely eliminates the intrusion of dust and other particles on the optical system, ensuring a consistent brightness output over time.



STRONG ENVIRONMENTAL ADAPTABILITY

Thanks to the full confidence in the product's protective performance scheme, the newly upgraded P series products are designed without dust filters. They can quickly expel the heat from the liquid copper tubes out of the body, allowing the product to operate in an ambient temperature of up to 40°C. At the same time, they can stably operate in a humidity environment of 0-80%, ensuring that the core components are always in a comfortable and stable working environment, reducing the occurrence of thermal protection issues. The product conforms to standard engineering projection design and has strong electrostatic protection characteristics, allowing it to perform its value even in complex engineering demonstration environments.

03 RICH FUNCTIONAL FEATURES

PRODUCT PROTECTION PERFORMANCE

The product is equipped with a robust software protection system that can achieve the product's scheduled locking function through decoding and calculation, providing users with a comprehensive software protection solution.

AUTOMATIC BLACK SCREEN MODE

The product is factory preset with an automatic black screen mode. When the product detects that the signal source is a completely black image, it automatically activates the black screen mode. This enhances the product's dynamic contrast and optimizes the dark field effect in the image display area, reducing the dark field brightness output to 0, truly achieving a full black mode.

MULTIPLE CONTROL PROTOCOL

The product supports various control methods such as serial port and network, with RS232C, PJlink, web, TCP, and other control protocols, enabling long-distance menu control functions and full-featured control access. It also has a reserved interface for upgrade information feedback, which, in conjunction with external resources, can achieve synchronized applications with lighting, sound, and other auxiliary equipment. In stage applications and large-screen conference scenarios, it leverages the product's expandability.

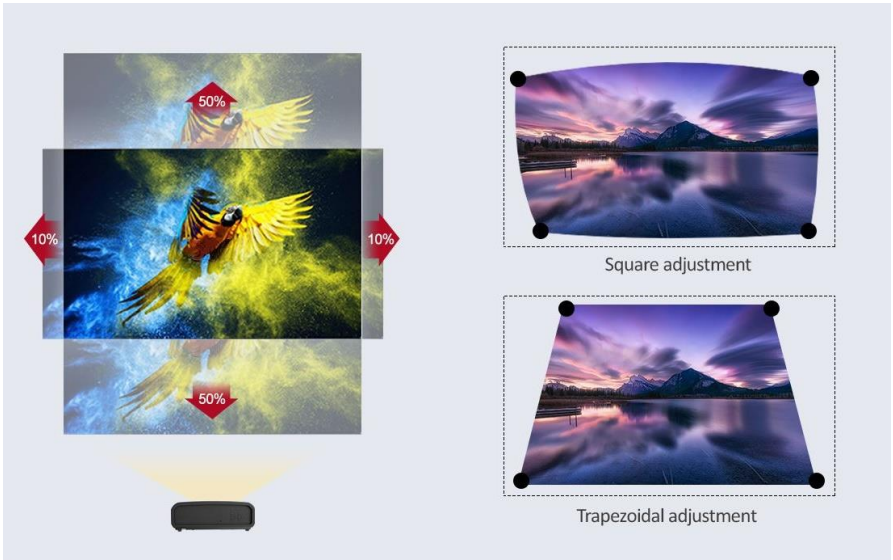
ACTIVE 3D FUNCTION

The newly upgraded P series is equipped with a 3D SYNC OUT interface, supporting the DLP Link 3D function, and is compatible with various active 3D display methods, including side-by-side format, left-right format, checkerboard sequence, and line sequence. It can also be connected externally to expand into multi-projector fusion for 3D synchronized image display, achieving a large-screen active 3D effect.

04 CONVENIENT USE EXPERIENCE

LARGE RANGE OF LENS DISPLACEMENT AND IMAGE CORRECTION

The product has a vertical displacement range of ±50%, and the lens offset reaches ±100%, offering greater freedom in the installation position of the projector. It also features trapezoidal correction up to ±30° and four-corner correction functions, adding greater convenience to the design of exhibits.



MULTIPLE LENS MATCHING

The newly upgraded P series products can be adapted to a variety of self-branded original lenses. Users can choose from a range of lenses with a projection ratio between 0.34 and 7.0 according to the actual needs on-site, flexibly adapting to various application scenarios such as ultra-short throw and ultra-long throw. Some lenses have an offset value reaching ±100%, offering a wide range of image movement and flexible installation.

05 SPECIFICATIONS

Model	TWP750U	TWP850U	TWP900U
Chip Size	17.018mm (0.67in) Diagonal line (16:10 Aspect Ratio)		
Display Mode	DLP™ chip x1, DLP™		
Physical Resolution	WUXGA, 1920x1200		
Lumens	7500	8500	9000
Dynamic Contrast Ratio	5000000: 1		
JBMA Evenness	90%		
Maintenance	Standard: 20,000 H / Energy-Saving: 25,000 H		
Projective Ratio	1.07 ~ 1.7 (Index mirror)		
Focusing Range	34.3~300 in		
Zoom Ratio	x1.6		
Lens Adjustment	Electric Zoom, Focus, Electric Displacement		
Projection Offset	Horizontal ±50% (Electric), Vertical ±10% (Electric)		
Color Wheel	Fluorescent pink wheel		
Color Wheel Speed	7200r/min		
Color Space	> 90% REC709		
3D	DLP Link 3D Support		
Trapezoidal Adjustment	Vertical/Horizontal ±30 degrees		
Tetragonal correction	Y		
Picture Aspect Ratio	16:10 (4 Types for choosing)		
Max. Supported Resolution	Up to WUXGA 1920x1200		
Power Dissipation	490W ±10%	530W ±10%	580W ±10%
Standby Power Consumption	<0.5W		
Input port	VGA INx 1, DVIx 1, HDMIx 2, HD BASETx 1, AC INx 1		
Output port	VGA OUTx 1, 3D SYNC OUTx 1		
Control port	Mini USBx 1, RS232 inputx 1, RS232 outputx 1, LAN control (RJ45)x 1		
Net Weight	<14KG		
Dimensions (W x H x D)	501mm x 365mm x 188.5mm		
Noise (Typical)	38.0(MAX41.0)DB-A @25°C		

06 Adaptive Lens Pitch Parameter Table

Image Size		Lens Selection (16:10 Models)					
Image Size (Inch)	Diagonal length (mm)	TWL-ZL034C	TWL-ZL042C2	TWL-ZL055C	TWL-ZL057C	TWL-ZL080C	TWL-ZL090C
		0.34: 1	0.42: 1	0.55: 1	0.57: 1	0.8: 1	0.9: 1
		Projection distance	Projection distance	Projection distance	Projection distance	Projection distance	Projection distance
70	1778	527.08	651.10	852.63	883.64	1240.19	1395.21
80	2032	602.38	744.11	974.44	1009.87	1417.36	1594.53
90	2286	677.68	837.13	1096.24	1136.10	1594.53	1793.85
100	2540	752.97	930.14	1218.04	1262.34	1771.70	1993.16
110	2794	828.27	1023.16	1339.85	1388.57	1948.87	2192.48
120	3048	903.57	1116.17	1461.65	1514.80	2126.04	2391.80
130	3302	978.86	1209.19	1583.46	1641.04	2303.21	2591.11
140	3556	1054.16	1302.20	1705.26	1767.27	2480.38	2790.43
150	3810	1129.46	1395.21	1827.07	1893.51	2657.55	2989.75
160	4064	1204.76	1488.23	1948.87	2019.74	2834.72	3189.06
170	4318	1280.05	1581.24	2070.68	2145.97	3011.89	3388.38
180	4572	1355.35	1674.26	2192.48	2272.21	3189.06	3587.69
190	4826	1430.65	1767.27	2314.28	2398.44	3366.23	3787.01
200	5080	1505.95	1860.29	2436.09	2524.67	3543.40	3986.33
210	5334	1581.24	1953.30	2557.89	2650.91	3720.57	4185.64
220	5588	1656.54	2046.31	2679.70	2777.14	3897.74	4384.96
230	5842	1731.84	2139.33	2801.50	2903.37	4074.91	4584.28
240	6096	1807.13	2232.34	2923.31	3029.61	4252.08	4783.59
250	6350	1882.43	2325.36	3045.11	3155.84	4429.25	4982.91
260	6604	1957.73	2418.37	3166.92	3282.08	4606.42	5182.22
270	6858	2033.03	2511.39	3288.72	3408.31	4783.59	5381.54
280	7112	2108.32	2604.40	3410.52	3534.54	4960.76	5580.86
290	7366	2183.62	2697.41	3532.33	3660.78	5137.93	5780.17
300	7620	2258.92	2790.43	3654.13	3787.01	5315.10	5979.49

06 Adaptive Lens Pitch Parameter Table

Image Size		Lens Selection (16:10 Models)					
Image Size (Inch)	Diagonal length (mm)	TWL-D-ZL120C		TWL-D-ZL160C (Index mirror)		TWL-ZL-130CA	
		0.75-1.2: 1		1.07-1.7: 1		1.42-2.56: 1	
		Min. Projection distance	Max. Projection distance	Min. Projection distance	Max. Projection distance	Min. Projection distance	Max. Projection distance
70	1778	1162.68	1860.29	1658.75	2635.40	2201.34	3968.61
80	2032	1328.78	2126.04	1895.72	3011.89	2515.82	4535.55
90	2286	1494.87	2391.80	2132.68	3388.38	2830.29	5102.50
100	2540	1660.97	2657.55	2369.65	3764.86	3144.77	5669.44
110	2794	1827.07	2923.31	2606.61	4141.35	3459.25	6236.39
120	3048	1993.16	3189.06	2843.58	4517.84	3773.72	6803.33
130	3302	2159.26	3454.82	3080.54	4894.32	4088.20	7370.28
140	3556	2325.36	3720.57	3317.51	5270.81	4402.68	7937.22
150	3810	2491.45	3986.33	3554.47	5647.30	4717.15	8504.16
160	4064	2657.55	4252.08	3791.44	6023.78	5031.63	9071.11
170	4318	2823.65	4517.84	4028.40	6400.27	5346.11	9638.05
180	4572	2989.75	4783.59	4265.37	6776.76	5660.58	10205.00
190	4826	3155.84	5049.35	4502.33	7153.24	5975.06	10771.94
200	5080	3321.94	5315.10	4739.30	7529.73	6289.54	11338.89
210	5334	3488.04	5580.86	4976.26	7906.21	6604.01	11905.83
220	5588	3654.13	5846.61	5213.23	8282.70	6918.49	12472.77
230	5842	3820.23	6112.37	5450.19	8659.19	7232.97	13039.72
240	6096	3986.33	6378.12	5687.16	9035.67	7547.45	13606.66
250	6350	4152.42	6643.88	5924.12	9412.16	7861.92	14173.61
260	6604	4318.52	6909.63	6161.09	9788.65	8176.40	14740.55
270	6858	4484.62	7175.39	6398.05	10165.13	8490.88	15307.49
280	7112	4650.71	7441.14	6635.02	10541.62	8805.35	15874.44
290	7366	4816.81	7706.90	6871.98	10918.11	9119.83	16441.38
300	7620	4982.91	7972.65	7108.95	11294.59	9434.31	17008.33

03 Adaptive Lens Pitch Parameter Table

Image Size		Lens Selection (16:10 Models)			
		TWL-ZL140C		TWL-ZL130CB	
Image Size (Inch)	Diagonal length (mm)	1.3-2.1: 1		1.5-3.0: 1	
		Min. Projection distance	Max. Projection distance	Min. Projection distance	Max. Projection distance
70	1778	2015.31	3255.50	2325.36	4650.71
80	2032	2303.21	3720.57	2657.55	5315.10
90	2286	2591.11	4185.64	2989.75	5979.49
100	2540	2879.01	4650.71	3321.94	6643.88
110	2794	3166.92	5115.79	3654.13	7308.27
120	3048	3454.82	5580.86	3986.33	7972.65
130	3302	3742.72	6045.93	4318.52	8637.04
140	3556	4030.62	6511.00	4650.71	9301.43
150	3810	4318.52	6976.07	4982.91	9965.82
160	4064	4606.42	7441.14	5315.10	10630.20
170	4318	4894.32	7906.21	5647.30	11294.59
180	4572	5182.22	8371.29	5979.49	11958.98
190	4826	5470.13	8836.36	6311.68	12623.37
200	5080	5758.03	9301.43	6643.88	13287.76
210	5334	6045.93	9766.50	6976.07	13952.14
220	5588	6333.83	10231.57	7308.27	14616.53
230	5842	6621.73	10696.64	7640.46	15280.92
240	6096	6909.63	11161.72	7972.65	15945.31
250	6350	7197.53	11626.79	8304.85	16609.70
260	6604	7485.44	12091.86	8637.04	17274.08
270	6858	7773.34	12556.93	8969.24	17938.47
280	7112	8061.24	13022.00	9301.43	18602.86
290	7366	8349.14	13487.07	9633.62	19267.25
300	7620	8637.04	13952.14	9965.82	19931.63

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