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COB Series

LED Display

INTRODUCTION

The COB Series chips are mounted directly onto a circuit board using a process known as "bare die" mounting. The LED chips are then encapsulated with a layer of epoxy, which protects them from damage and enhances their durability. The COB Series display is a brighter and more efficient display with better color uniformity and a wider viewing angle. The COB Series offer a cost-effective and efficient solution for high-density LED displays with improved color quality and viewing angles.widely used in various applications, including indoor and outdoor advertising displays, stadium screens, traffic signs, and scoreboards.

FEATURES

- **Full Flip Chip Process**
- **High protection**
- **Adjustable Brightness**
- **Ultra-high Contract ratio with 10000:1**
- **High stability**
- **Energy saving & Environmental protection**
- **Simple structure integrated control**
- **High reliability with long service life**

COB Series

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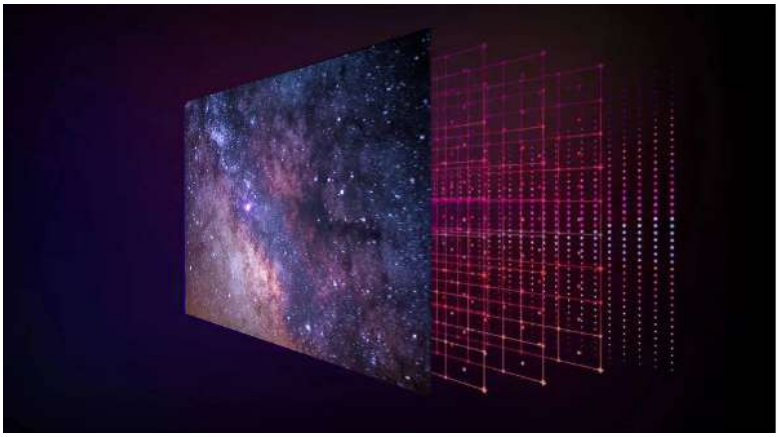
FEATURES IN DETAIL

Full Flip Chip Process

- PCB circuit boards, LED chips, welding wires, etc. are fully sealed, so as to achieve the advantages of moisture-proof, wear-resistant, anti-static, and easy to clean;
- The light-emitting chip is in direct contact with the PCB, making full use of the substrate for heat conduction and heat dissipation. The heat dissipation channel is short, the heat accumulation is small, and the brightness decays slowly;
- No need for grain packaging, the entire light-emitting surface is covered with black light-absorbing material, the product contrast is higher, and the graininess of conventional small-pitch LED displays is improved.



High Color Gamut

- It has a wider range of colors and can accurately represent more shades and hues, making it suitable for high-end color-critical applications. a wider color gamut can provide more vibrant and accurate colors

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Product Protection

- The front protection level reaches IP54, and the front can realize dustproof and resist water spray
- Flip-chip LED chips do not need to be wired, and the risk of false soldering is halved
- No occlusion, high light efficiency
- Good heat dissipation, under the same brightness conditions, the power consumption of the chip is reduced by 40%, and the surface temperature is 10°C lower, which is more suitable for the application scenario of near-screen experience

High Contrast

- The module adopts full-color black-faced LED lamp beads and is equipped with a soft mask, which greatly improves the contrast of the entire screen and solves the phenomenon of modularization without a mask;
- The design of the diffusion scheme in the LED light-emitting cup reduces the reflectivity of the LED panel, prevents reflections, and makes the image performance clearer and more delicate;

Poor Quality

Clear Picture Quality

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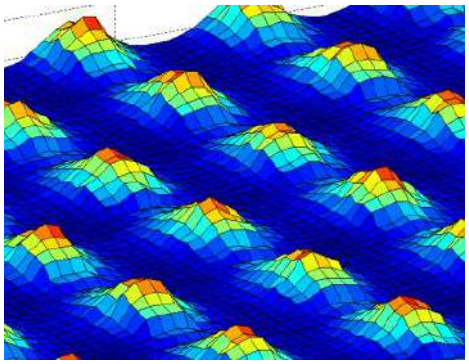
Healthy Soft Light

- COB is filled with polymer materials, which reduces the separation of pixels, reduces the sharpness of the picture, and the overall screen glows softly without glare, reducing the glare and tingling caused by long-term viewing;



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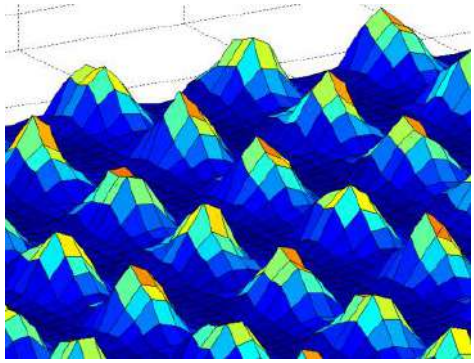

SMD

Surface Light Source

- The luminous outlet of SMD products is small, and the grainy feeling is strong when viewed at close range. COB is an integrated package with high luminous flux density, and what is emitted is a uniformly distributed light surface. Large viewing angle, effectively relieves graininess and moire.

COB

SMD

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SPECIFICATIONS

Product Name	COB-P0.625	COB-P0.78125	COB-P0.9375	COB-P1.25	COB-P1.5625
Pixel Pitch	0.625mm	0.78125mm	0.9375mm	1.25mm	1.5625mm
Panel Material	Die casting aluminum	Die casting aluminum	Die casting aluminum	Die casting aluminum	Die casting aluminum
Brightness	600nit	800nit	1000nit (HDR10)	1000nit(HDR10)	1000nit(HDR10)
Pixel Density	2560000pixel /sqm	1638400pixel /sqm	1137777pixel /sqm	640000pixel /sqm	409600pixel /sqm
Module Size	150mm(W)x168.75mm(H)				
Panel Size	600mm(W)x337.5mm(H)				
Module Resolution	240(W)x270(H)	192(W)x216(H)	160(W)x180(H)	120(W)x135(H)	96(W)x108(H)
Panel Resolution	960(W)x540(H)	768(W)x432(H)	640(W)x360(H)	480(W)x270(H)	384(W)x216(H)
Weight Per Panel	6.4KG	4.6KG	5.1KG	5KG	5KG
Horizontal Viewing Angle	160°				
Vertical Viewing Angle	160°				
Best View Distance	0.8m~3m	1m~3m	1m~3m	1.5m~3m	1.8m~3m
Power Consumption	155W /sqm	145W /sqm	125W /sqm	108W /sqm	108W /sqm
Max Power Consumption	460W /sqm	435W /sqm	370W /sqm	330W /sqm	330W /sqm
Refresh Rate	3840Hz	3840Hz	3840Hz	3840Hz	3840Hz
Software Manual Adjustment	100 levels adjustable	100 levels adjustable	100 levels adjustable	100 levels adjustable	100 levels adjustable
Lifespan	100000 hours	100000 hours	100000 hours	100000 hours	100000 hours

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