

# LED COB Indoor Display

## TW31-COB Series

**HDR**

### INTRODUCTION

COB LED display, support advanced HDR technology for vivid, high-contrast visuals. This durable and reliable screen excels in diverse settings, including digital signage, broadcasting studios, control rooms, corporate lobbies, and educational facilities. It provides an exceptional viewing experience with enhanced brightness and color accuracy, making it ideal for environments where superior image quality is crucial. Embrace a display that offers both longevity and unparalleled clarity in a wide range of professional applications.



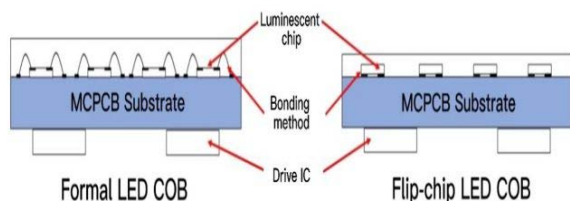
### FEATURES

- Super Contrast Experience: vivid content and intense contrast
- Micro LED technology embeds micron-sized LED into modules to form a tile-like structure
- Display brightness of up to 1000 nits, this exceptional brightness ensures clear, vivid images even in bright conditions
- HDR1000 support: larger chip combined with newer control system
- Higher reliability and durability: full flip-chip process
- Improve thermal management capabilities. The LED chip adopts a flip-chip structure, thereby reducing heat generation by about 30%. The screening rate of the structure is low.
- Improved light efficiency and brightness: Full flip-chip process, this improvement directly enhances the overall brightness and color consistency of the display.

## TW31-COB Series

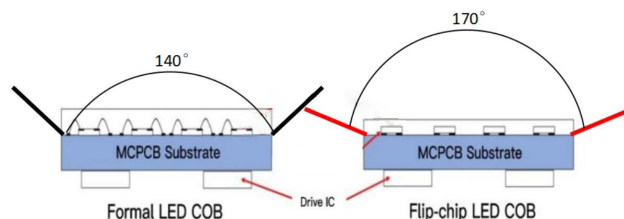
## Higher Reliability And Durability

The Full Flip Chip Process not only reduces the number of solder pins by flipping the LED chip directly onto the substrate, but also reduces the electrical and thermal connection problems caused by the pins. This structure improves the mechanical and thermal stability of the entire assembly, thereby enhancing the reliability and durability of the LED display.



## Improve Light Efficiency And Brightness

The Full Flip Chip process makes the light output surface of the LED chip unobstructed by traditional solder joints, and the effective viewing angle is increased from 140° of the front-mounted structure to 170° of the flip-chip structure. This improvement directly enhances the overall brightness and color consistency of the display.



## HDR Support

HDR1000 Support: Larger chips combined with updated control systems simplify HDR1000 (1000nits+) support, enhancing visual quality with striking contrast and vivid colors, ideal for immersive viewing experiences.

## Improve Thermal Management Capabilities

Due to the flip-chip structure of the LED chip, the light-emitting chip used in the same pixel area can be about 40% larger than the front-mounted structure, so that the heat is about 30% lower than the screen with the front-mounted structure when the same brightness is met.



Improve thermal management



Flip chip structure



The light-emitting chip is 40% larger than the front structure

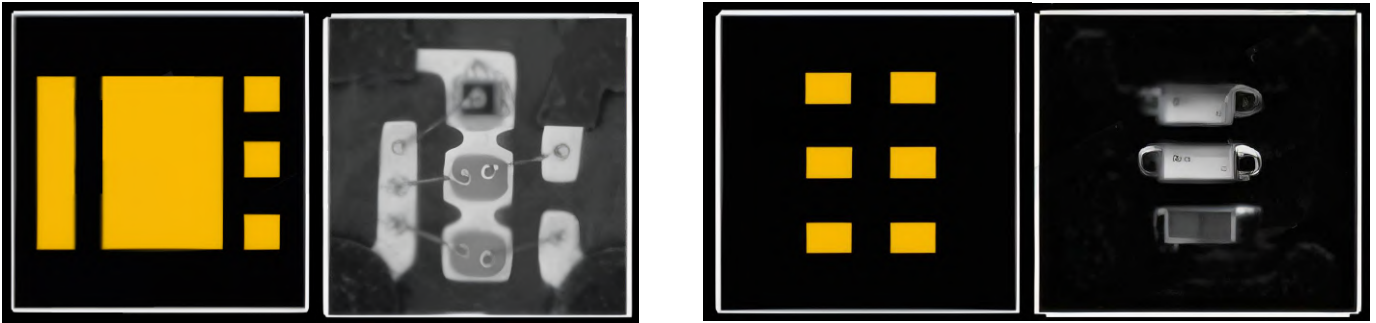


Heat generated is reduced by approximately 30%



## Easier to achieve Micro-Pitch

The Full Flip Chip process reduces the area occupied by the pixel points by up to 40% compared with the front-mounted process, so that more pixels can be accommodated under the same size, thereby achieving a smaller pixel pitch.



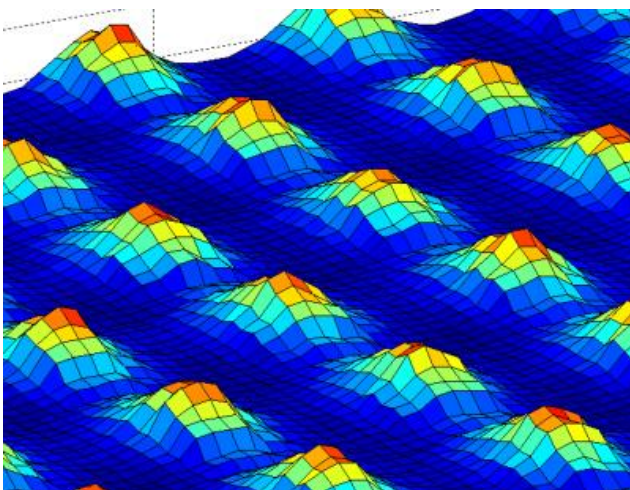
## Highly Integrated Design

The highly integrated world makes troubleshooting very simple. Finding the corresponding faulty component and replacing it can make the screen look brand new.

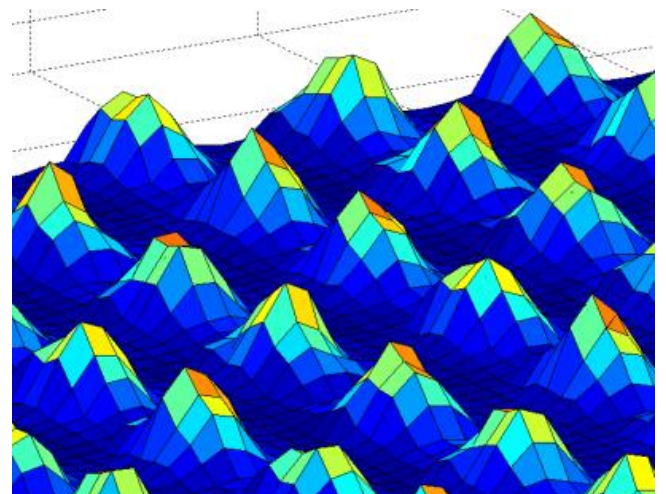


## Healthy Soft Light

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

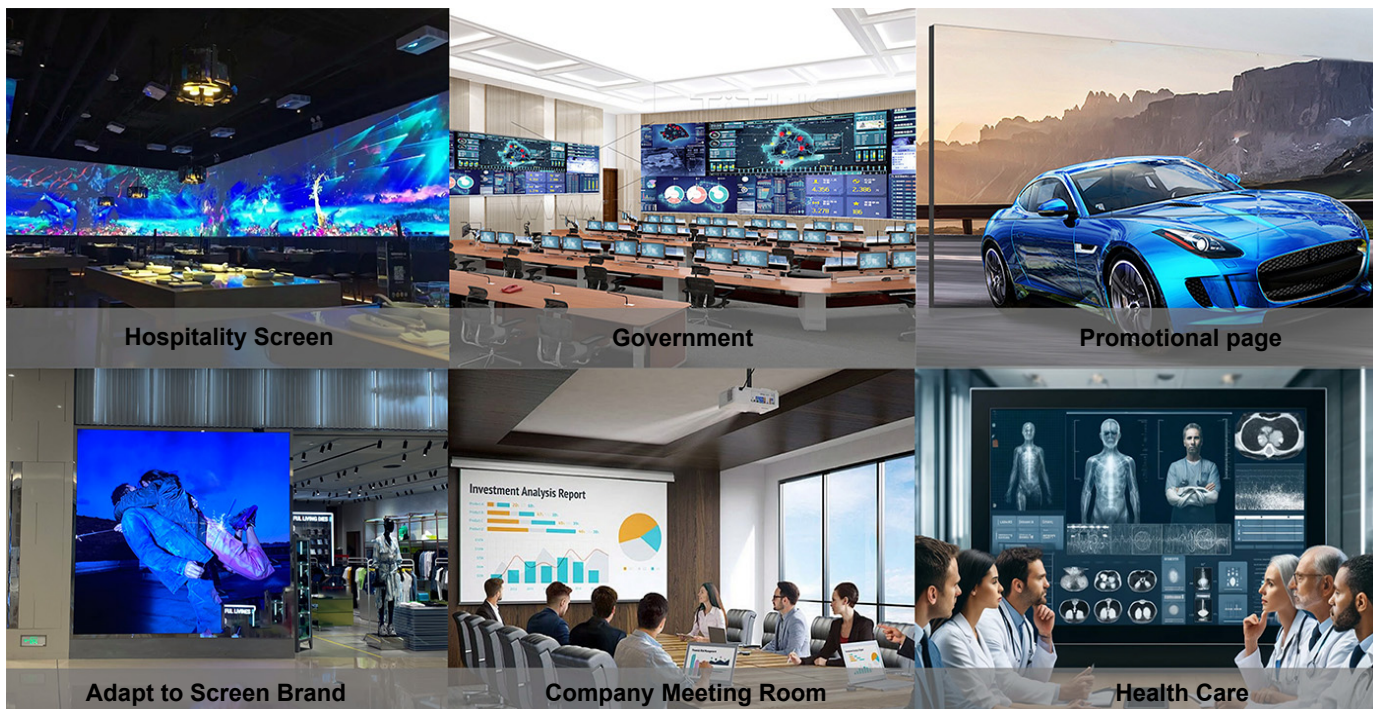


COB



SMD





## SPECIFICATIONS

Product Name	TW31-COB-P0.7H	TW31-COB-P0.9H	TW31-COB-P1.2H	TW31-COB-P1.5H
Pixel Pitch	0.78125mm	0.9375mm	1.25mm	1.5625mm
Panel Material	Die Casting Aluminum			
Brightness	800nit(HDR10)	1000nit (HDR1000)	1000nit(HDR1000)	1000nit(HDR1000)
Pixel Density	1638400Pixel /Sqm	1137777Pixel /Sqm	640000Pixel /Sqm	409600Pixel /Sqm
Module Size	150mm(W)x168.75mm(H)			
Panel Size	600mm(W)x337.5mm(H)x37.7mm(D)			
Module Resolution	192(W)x216(H)	160(W)x180(H)	120(W)x135(H)	96(W)x108(H)
Panel Resolution	768(W)x432(H)	640(W)x360(H)	480(W)x270(H)	384(W)x216(H)
Weight Per Panel	4.6KG	5.1KG	5KG	5KG
Horizontal Viewing Angle	170°			
Vertical Viewing Angle	160°			
Best View Distance	1m~3m	1m~3m	1.5m~3m	1.8m~3m
Power Consumption	145W /Sqm	125W /Sqm	108W /Sqm	108W /Sqm
Max Power Consumption	435W /sqm	370W /sqm	330W /sqm	330W /sqm
Refresh Rate	3840Hz			
Software Manual Adjustment	100 Levels Adjustable			
Lifespan	100,000 hours			