Unilumin

ULWⅢ MIP Pro SERIES

First automatic Production
NPP LED display

What is MIP

MIP（Micro In Package）： Micro LED chips are transferred to the carrier board by using mass transfer technology, package and cut into single pixel-level packages, and subjected to pixel-level inspection and binning.

2012

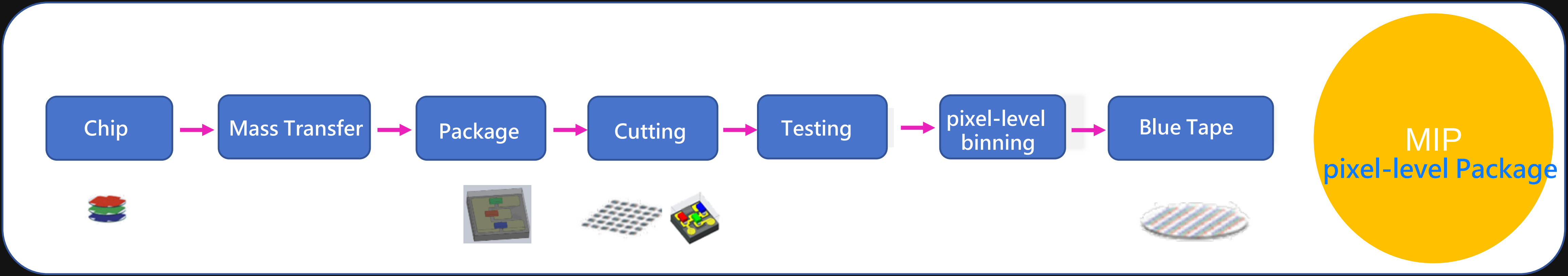
MIP Technology launch

2023

Production began

2024

ULWIII MIP

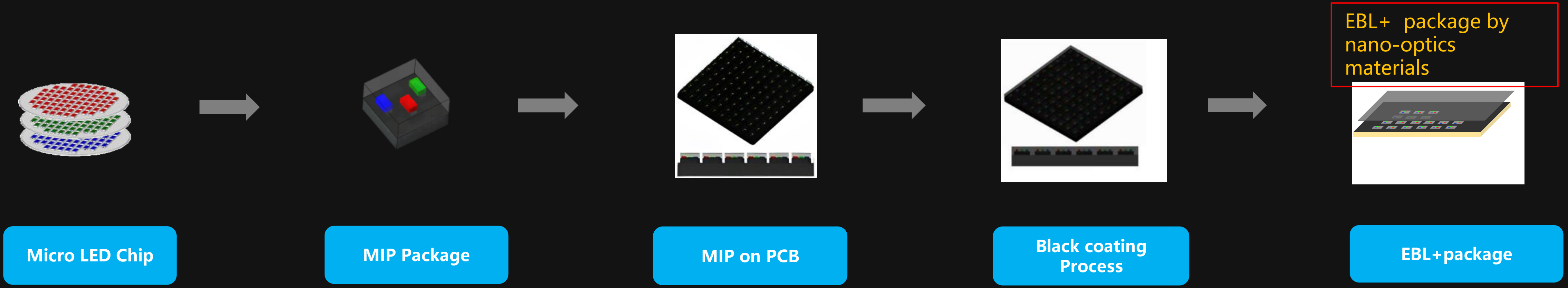


Chip → Mass Transfer → Package → Cutting → Testing → pixel-level binning → Blue Tape

MIP
pixel-level Package

What is Unilumin MIP

MIP ＋ COB Surface Process Technology (EBL+technology)

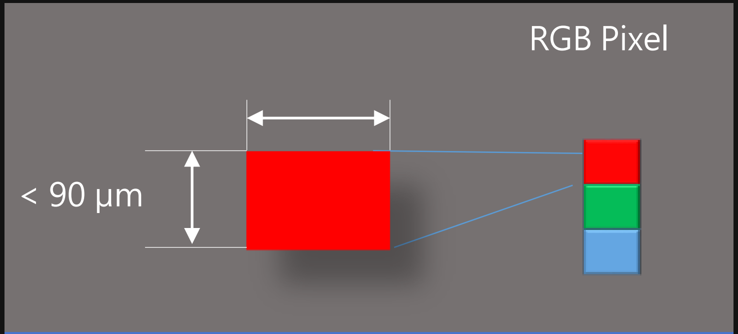


Full flip chip
Mini/Micro chip

MIP Technology Advantages

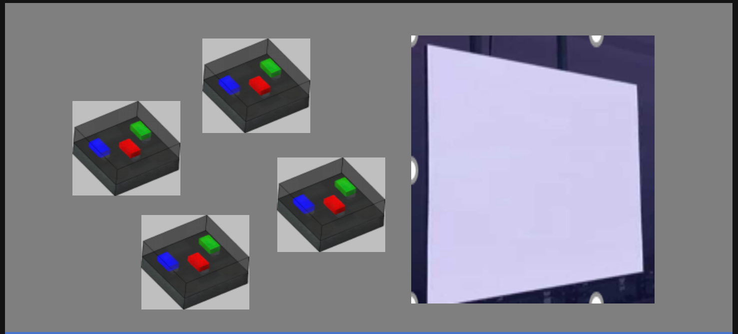
MIP Technology Advantages

- Micro chip package: pixel-level binning, significantly enhances large viewing angle/ black and white screen consistency and uniformity.
- Full flip chip design, ultra-high stability, high luminous efficiency, low power consumption.
- COB optical Processing with surface light source, better eye care.
- Large-size module design, reduces physical splicing gaps, improves flatness.



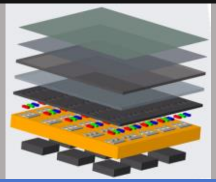
Micro LED

LED chip unilateral length < 90 µm



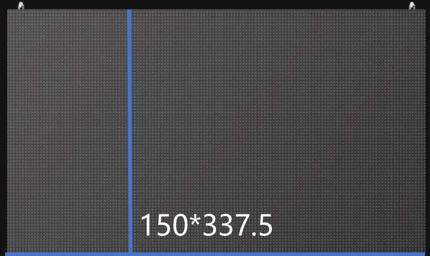
Pixel level light color mixing bin

Better consistency from wide viewing angle



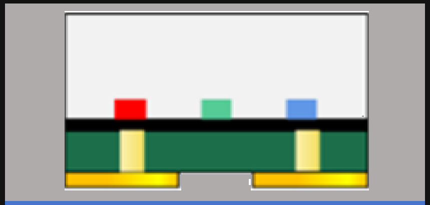
COB surface Process

Surface light source



Larger size ,module

Larger PCB, lesser gaps



Full flip chip RGB

Higher luminous efficiency, lower consumption

ULWⅢ MIP Pro Technology Advantages

ULWⅢ MIP Pro

Chip level package

Pixel-level binning

High consistency over 99%

180° wide viewing angle without color cast

Full flip chip MIP

No welding wire · high stability and longer life-span.

RGB full flip chip, reliability increased by 50%.

Common cathode energy-saving design, higher light efficiency.

EBL+ patented surface Process

Multi-layer nano-optical Processing technology

Pure black | Soft display

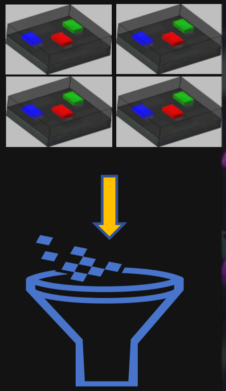
Low reflection

Low touch trace | Low Moiré

3+7 Strong Protection

- Anti-splash
- Anti-dust
- Anti-collision
- Anti-scratch
- Anti- static
- Anti-bump
- Anti-Moiré
- Anti-mildew
- Anti-moisture
- Anti-salt mist

Excellent Visual Performance



Ultra-high consistency over 99%

- Self-developed package
- Pixel-level binning

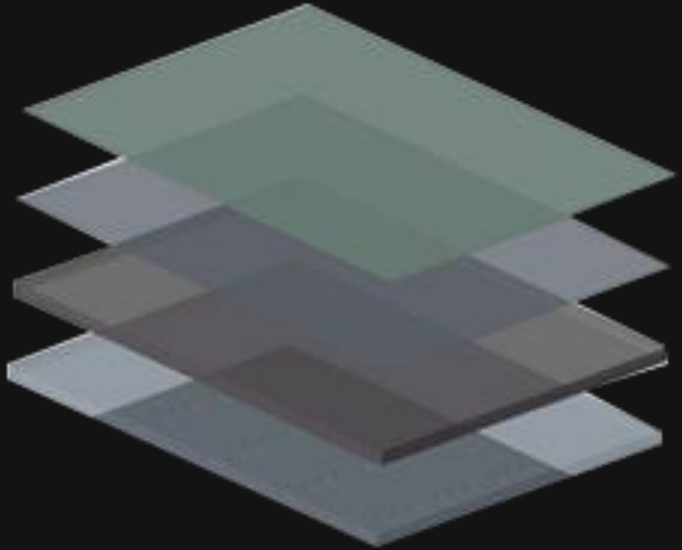
Wide viewing angle without color cast

- 180° horizontal wide viewing angle

Brilliant performance

- High contrast ratio
- Support grayscale 22bit+
- Support HDR display

Excellent Visual Performance



EBL+ (Enhance black level+) Multiple optical Processing

Adopt multilayer nano-optical material, 8000:1 high contrast ratio, presenting extremely deep black visual with no reflections.

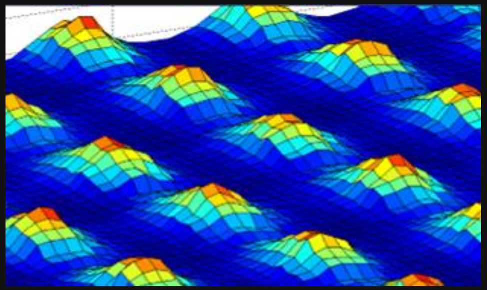
Care For Eyes

Eyes Protection

Surface light source

Higher light-emitting uniformity

Better Protections for eyes



Anti-glare, low reflection

COB surface Process technology,

more comfortable for eyes

Globally certified

TÜVRheinland®

Precisely Right.

Low blue light certification

Prüfzeichen *Test Mark:*

TÜVRheinland®

CERTIFIED

Low Blue Light
(Software
Solution)

www.tuv.com

ID 1111277[redacted]0

3+7 Protections

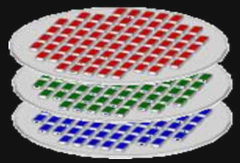
- Anti-collision ☑
- Anti-moisture ☑
- Anti-salt mist ☑

- ☑ Anti-moiré
- ☑ Anti-splash
- ☑ Anti-bump
- ☑ Anti-statics
- ☑ Anti-scratch
- ☑ Anti-mildew
- ☑ Anti-dust

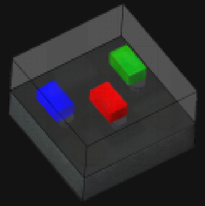
Stability & Green

Full Flip Chip With Common Cathode — Mini & Micro Chip Level Package

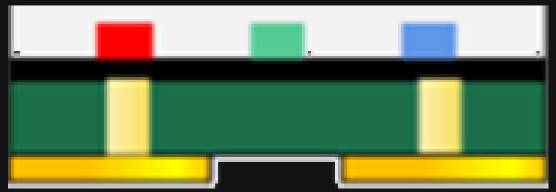
- RGB full flip chip，no welding wires，higher Product stability, longer lifespan, failure rate reduced by 50%.
- Common cathode design, five-side light emission, higher luminous efficiency, power consumption reduced by 34% (compare with regular SMD)



LED chip



MIP package

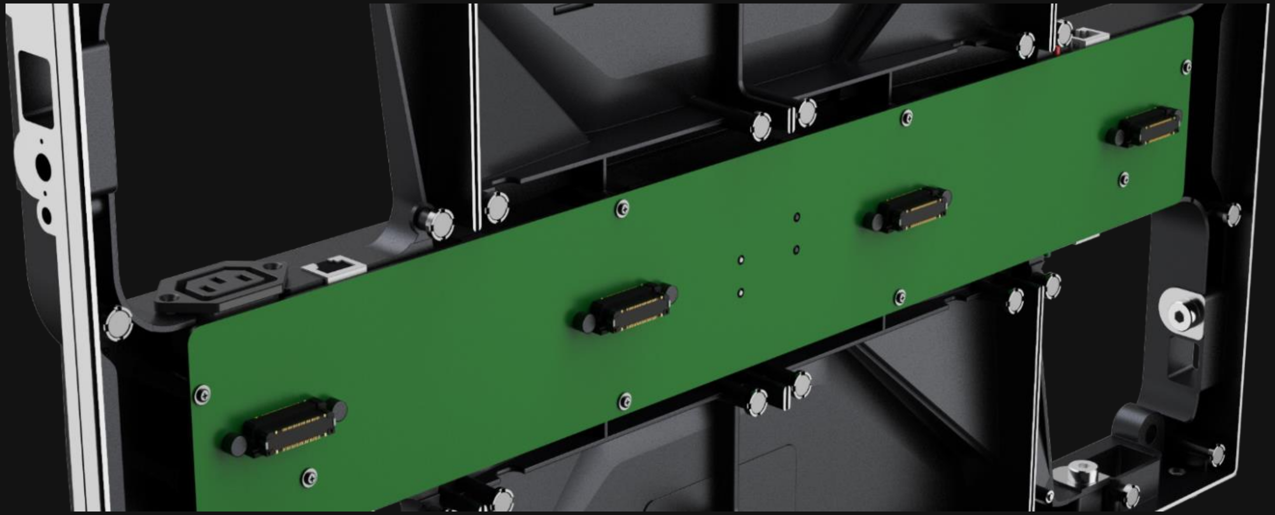


Full flip RGB

High integration， more stable

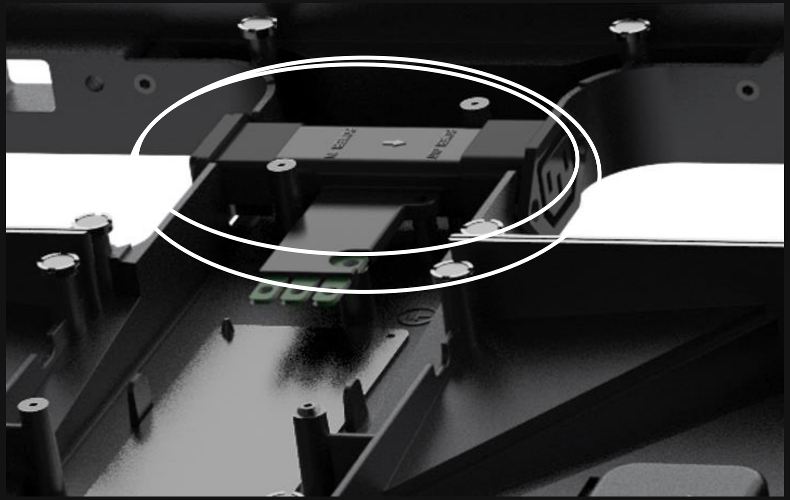
High Integration

- **Receiving card and hub 2-in-1 high integration design** increases signal transmission stability



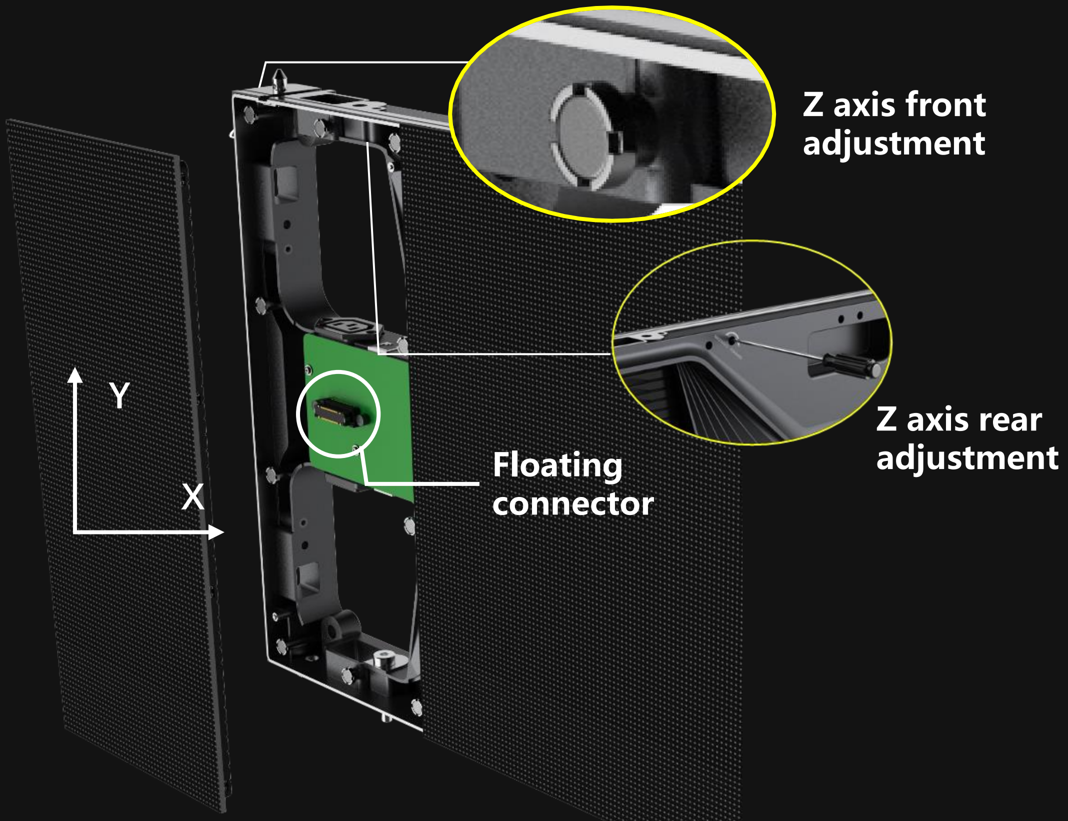
No cable Inside

- power input connects to PSU with integrated IEC connector
- Supporting dual power input for high stability



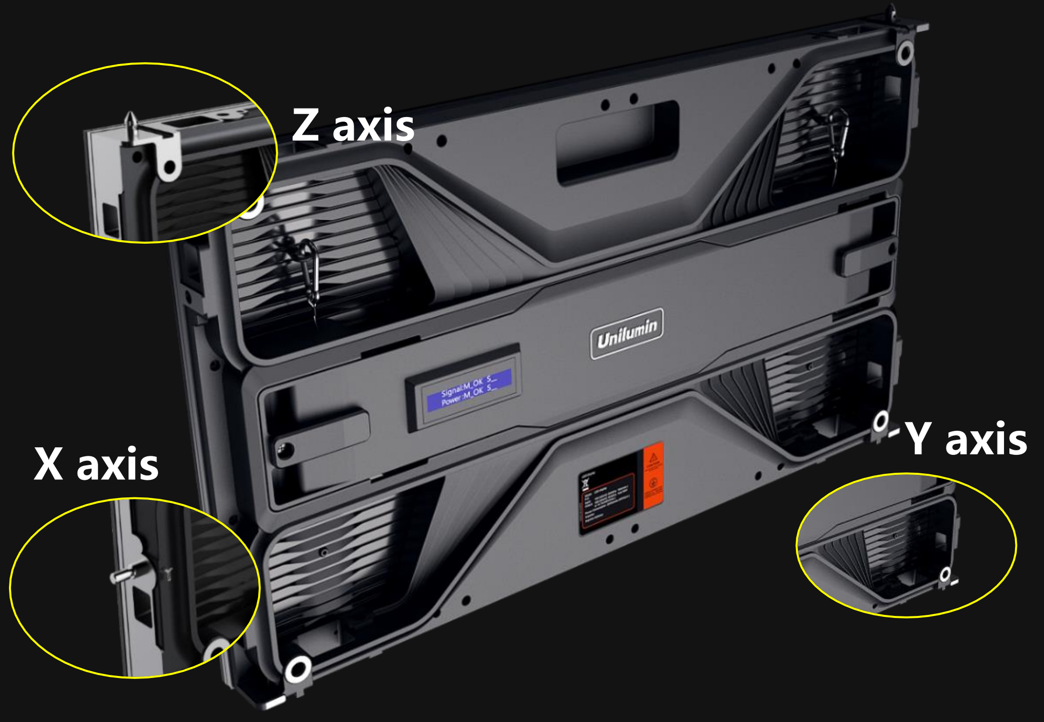
XYZ axis six-way adjustment

Module XYZ axis six-way adjustment



Floating connector, adjusting module gap.
module XYZ axis six-way adjust module flatness

Cabinet XYZ axis six-way adjustment



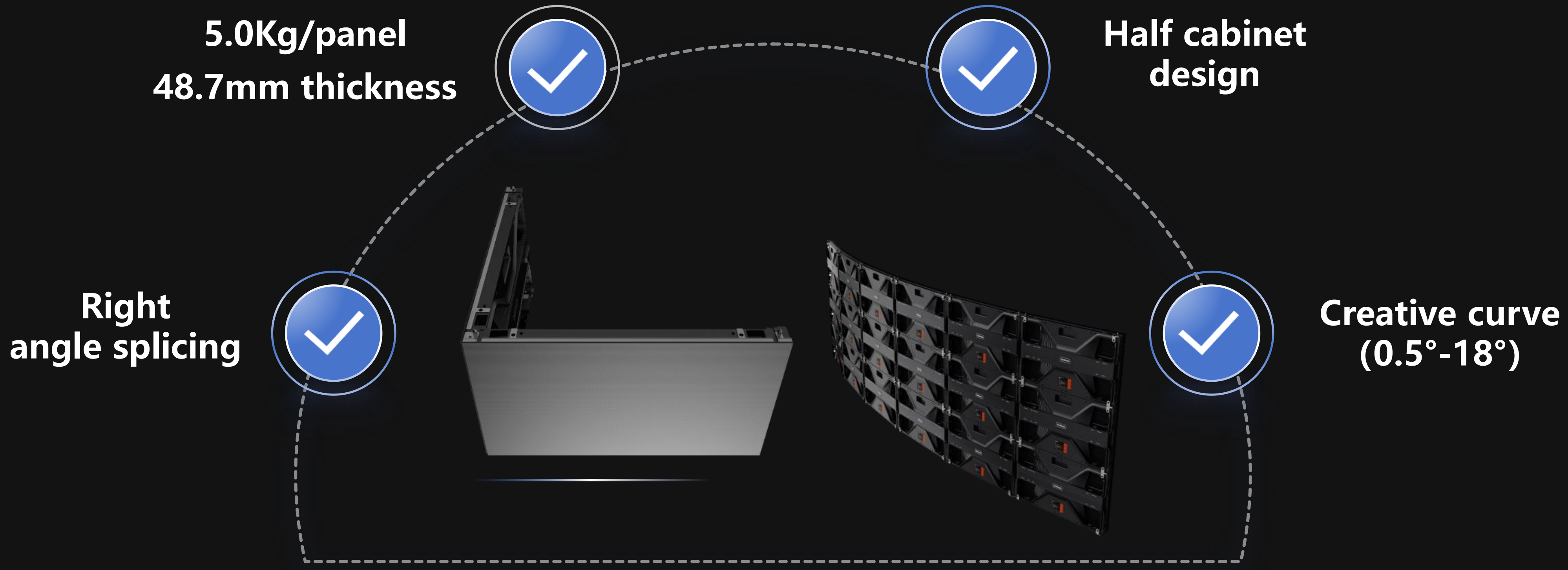
The flatness can be adjusted to 0.1mm

High flexibility

Flexible shape

Support inner curve,right angle and half cabinet

Support max 18° inner curve cabinet splicing， a complete circle can be made up with 20 cabinets



5.0Kg/panel
48.7mm thickness

Half cabinet
design

Right
angle splicing

Creative curve
(0.5°-18°)

Product need to be customized，please consult your regional sales representative for delivery cycle.

Main Applications

Exhibitions

House theaters

Summit forums

Education

Meeting room

Command center

Specification

Product	ULWⅢ MIP Pro		
Pixel Pitch	0.9	1.2	1.5
Panel Size	600×337.5×47.8mm		
Weight	5kg/panel		
Brightness	600nits		
Maintenance	Front and rear maintenance		
Fault monitoring	Indicator light , LCD *		
Input Power<Max>	350±10%W/m²	275±10%W/m²	250±10%W/m²
Input Power<Typical>	115±10%W/m²	90±10%W/m²	80±10%W/m²

Unilumin

THANKS

ULWⅢ MIP Pro