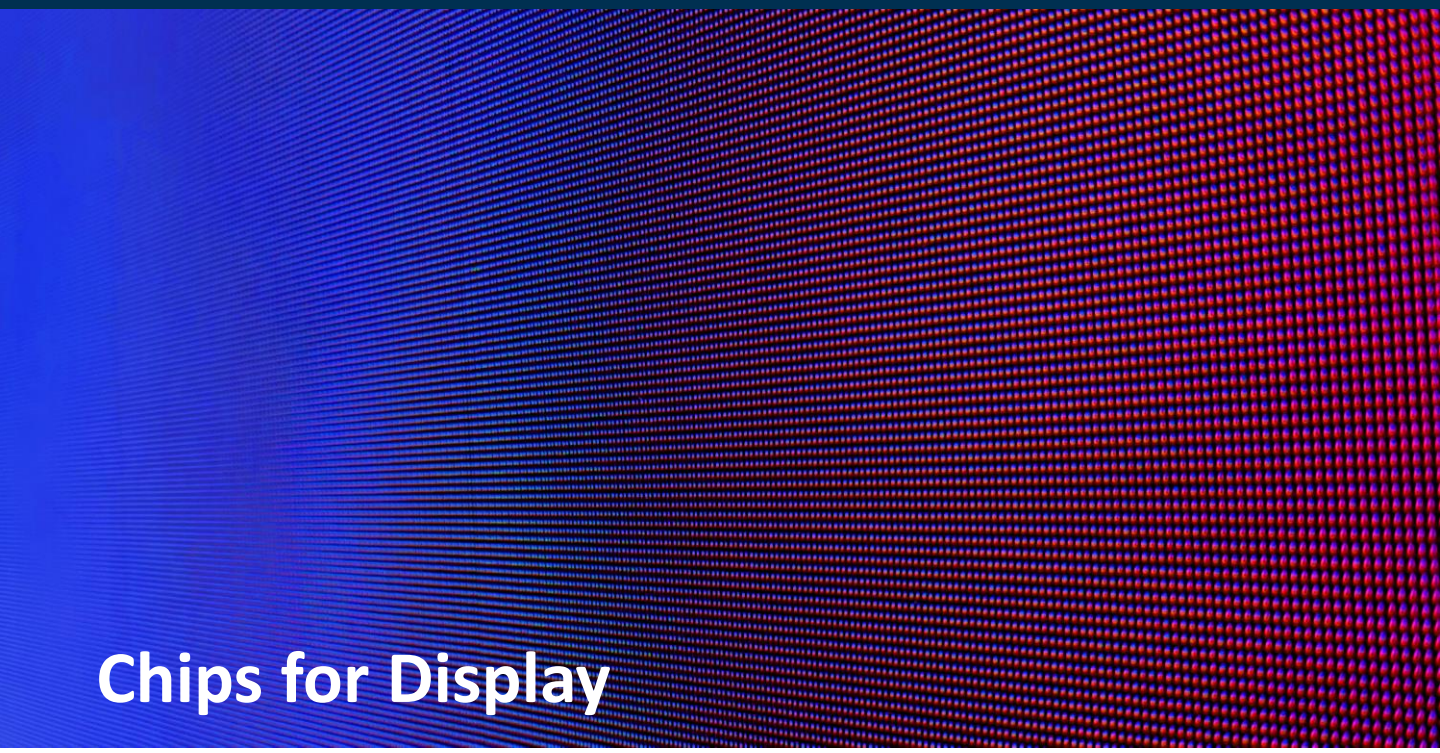
EPISTAR



Chips for Display

EPISTAR keeps striving to develop new technology and provide appropriate LED solutions to partners to create more enjoyable vision experiences. Nowadays display development is ready to move to the next generation.

2010

Edge Type Backlight

High Brightness Chip

Features：

- Thinner panel
- Cost saving

Product Type	F22L	PE26H
Wd (nm)	445 ~ 465	445 ~ 455
Chip Size (mil)	22 x 40	26 x 26
Thickness (μm)	200	150
Power (mW)	250 @ 120 mA	380 @ 225 mA

2014

Direct Type Backlight

High Current Density Chip

Features：

- Better light uniformity
- Higher brightness contrast
- Image quality better than edge type

Product Type	PE39D	F21E
Wd (nm)	445 ~ 460	447.5 ~ 455
Chip Size (mil)	39 x 39	21x43
Thickness (μm)	200	150
Power (mW)	1140 @ 700 mA	700 @ 350 mA

2018

POB Local Dimming Backlight

High Efficiency Chip

Features：

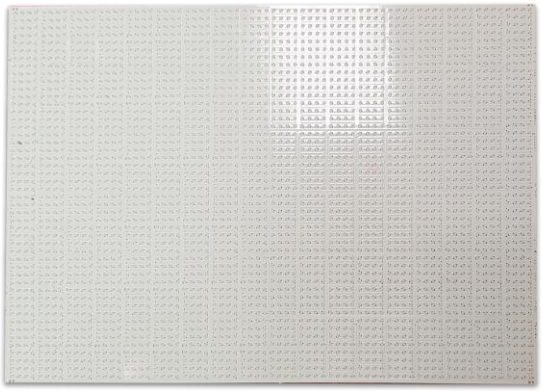
- Lower power consumption
- Higher image contrast
- Better grayscale for good image quality
- Local dimming for HD above

Product Type	PE10E	F09C
Wd (nm)	447 ~ 453	445 ~ 465
Chip Size (mil)	10 x 21	9 x 21
Thickness (μm)	100	150
Power (mW)	35 @ 20mA	110 @ 60mA

2020

COB Mini LED Backlight

High Quality Chip



Features：

- Full-array local dimming technology
- Allowing 4K, 8K image content input
- Exquisite image quality
- For luxury watching experience

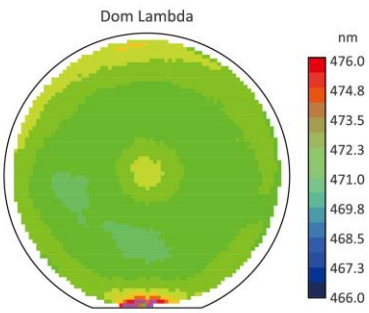
Product Type	PD08D	PE06A
Wd (nm)	445 ~ 460	445 ~ 460
Chip Size (mil)	8 x 17	6 x 18
Thickness (μm)	100	100
Power (mW)	13 @ 5mA	9.4 @ 5mA

EPISTAR

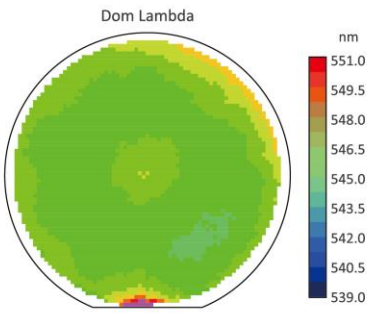
6-inch COW Micro LED Wavelength Uniformity

Good wavelength uniformity of RGB 6-inch epiwafer for micro LED production and utilization.

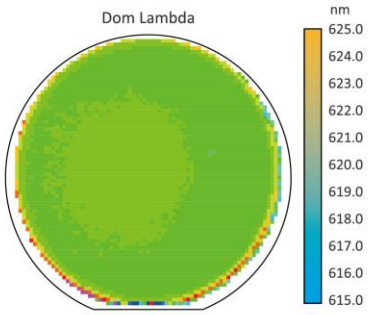
Blue



Green



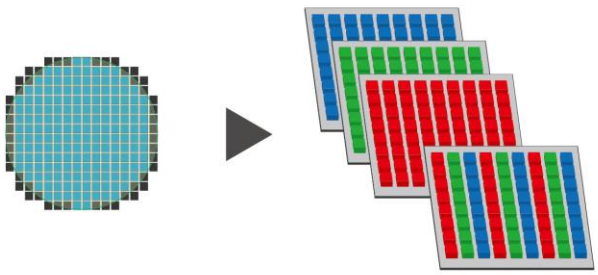
Red



Micro LED Solutions for Mass Transfer

PAM

From Wafer …

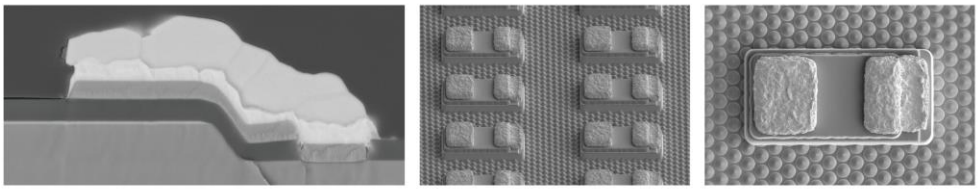


Singulated chips with pre-transfer single color or multiple colors from processed micro LED wafers to a carrier with pre-defined pixel pitch.

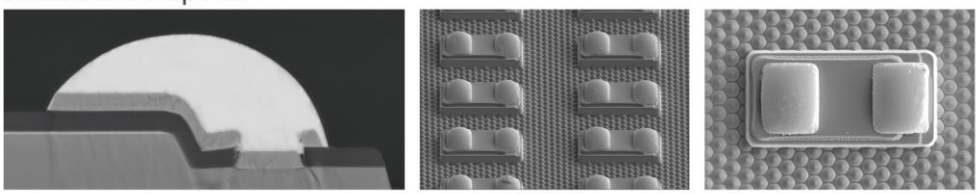
Suitable for mass transfer process to transfer chips to a display backplane.

Advanced Bump Pad

Conventional



Advanced Bump Pad

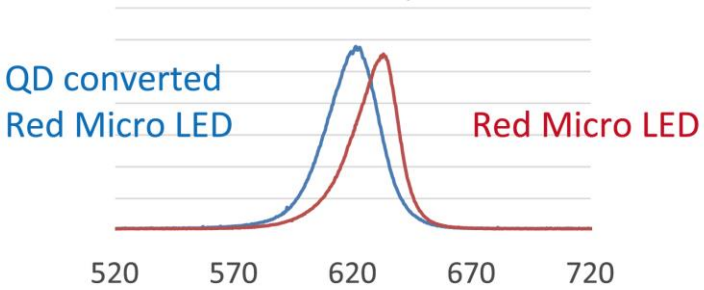


Novel bump structure with low defect for robust soldering process

QD Chip

Solution for monolithic array

To accomplish high color purity and high efficiency micro LED on a monolithic array with red color converted from blue by QD.



Micro LED Display

Features：

- Higher HDR effect and more colorful image display
- Enhancing definition and contrast into higher level
- Ultra high resolution display
- For home cinema/public information display

Courtesy of INNOLUX