

Y E O L I G H T



翌光
Yeolight

以科技创新重新定义光的世界

翌光科技有限公司

Yeolight Technology Co., Ltd.

O L E D

L I G H T I N G



企业简介

Introduction

翌光科技有限公司成立于2015年5月8日，是一家致力于“以科技创新重新定义光的世界”的高科技企业，公司总部位于固安。翌光主要从事新型有机半导体照明技术（OLED）及应用产品的自主研发、规模生产、市场销售等业务。经过多年发展，翌光科技已经成为国内OLED照明行业领军企业。

Founded on May 8, 2015, Yeolight Technology is a high-tech enterprise dedicated to "Redefine the world of light with technological innovation", with its headquarters in Gu'an. Yeolight is mainly engaged in the independent research and development, large-scale production, marketing and sales of new organic semiconductor lighting technology (OLED) and application products. After years of development, Yeolight has become a leading enterprise in the domestic OLED lighting industry.

2016年10月，一期投资5亿元的第2.5代OLED照明规模量产线在河北固安正式投产，该产线是国内首条OLED照明量产线。

In October 2016, the 2.5 generation OLED lighting scale mass production line with an investment of RMB 500 million in the first phase was officially put into operation in Gu'an, Hebei. This production line is currently an advanced mass production line for OLED lighting in China.

2022年5月，规划总投资20亿元的“第4.5代有机发光器件(OLED)产业化”项目在安徽省淮北市相山经济开发区正式开始建设。

In May 2022, the "4.5 Generation Organic Light-Emitting Device (OLED) Industrialisation" project, with a total investment of RMB 2 billion, officially started construction in the Xiangshan Economic Development District in Huaibei City, Anhui Province.

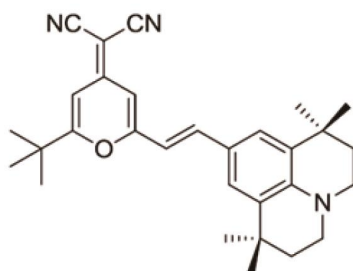


OLED技术

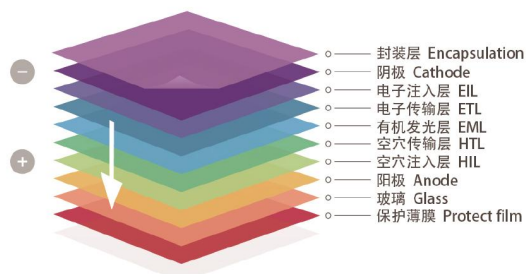
OLED Technology

OLED (Organic light-emitting diode, 有机发光二极管)，是一种在电场驱动下发光的有机半导体器件。其发光原理是载流子通过正负极注入并在发光层复合形成光子的过程。OLED器件结构主要包括基板、透明电极、有机发光层等。将基板材料改为塑料薄膜等柔性基材，还可实现柔性屏体。选取适当的透明电极以及透明基材，还可制作出透明OLED屏体。

OLED (Organic Light Emitting Diode) is an organic material-based area light source. The source of light contains an EML that can respond to electric currents by emitting light. Other layers, such as ETL, HTL and HIL, optimize the flow of electric currents to maximize the EML's light emission. The flexible panel can also be realized by changing the substrate material to a flexible substrate such as a plastic film. Transparent OLED panel can also be fabricated by selecting appropriate transparent electrodes and transparent substrates.



有机材料
Organic Material



OLED器件结构图
OLED Structure

发展历程 Milestone

参观以后很受感动
中国有礼丰导体
照明很有发展
前景希望全国
优势力量联合
起来共同攻关
在世界前面。
师昌绪
二〇一二年清明

两院院士师昌绪参观后题词

2015

05
固安翌光科技有限公司正式成立
Gu'an Yeolight Technology Co.

09
开发出国内首款透明OLED汽车尾灯组

Development of the first transparent OLED automotive taillight cluster in China

11
北京翌光科技有限公司成立
Beijing Yeolight Technology Co.

10

国内首条OLED照明2.5代量产线投入建设

China's first 2.5 generation mass production line for OLED lighting goes into construction

2016

09

翌光被评为高新技术企业

Yeolight was named a high-tech enterprise

与国内最大车灯厂签署战略合作协议

Signed a strategic cooperation agreement with the largest headlight factory in China

10

固安产线启动量产

Gu'an production line starts mass production

2017

01

翌光OLED照明体验中心开幕

Opening of Yeolight OLED Lighting Experience Centre

2018

12

通过IATF16949体系认证

Certified to the IATF 16949 system

2020

04

红旗H9车灯OLED光源进入量产

HongQi H9 taillight OLED light source enters mass production

05

完成数字化OLED光源设计与制造，经过测试达到车载性能要求

Yeolight OLED light source design and manufacturing completed, tested to meet automotive performance requirements

2021

06

安徽淮北翌光项目正式签约

Huaibei Yeolight project officially signed in Anhui Province

2022

05

规划总投资20亿元的“第4.5代有机发光器件(OLED)产业化”项目在安徽省淮北市相山经济开发区开始建设

The "4.5 Generation Organic Light Emitting Device (OLED) Industrialization" project, with a total investment of RMB 2 billion, started construction in Xiangshan Economic Development Zone, Huaibei City, Anhui Province

产品类型 Applications

翌光科技拥有2.5代和4.5代OLED照明生产与模组量产线, 具备OLED车载照明研发和量产能力。目前, 不仅可以生产OLED白光、红光、绿光、黄光等不同颜色OLED光源, 也可以提供透明OLED光源以及柔性OLED光源产品。

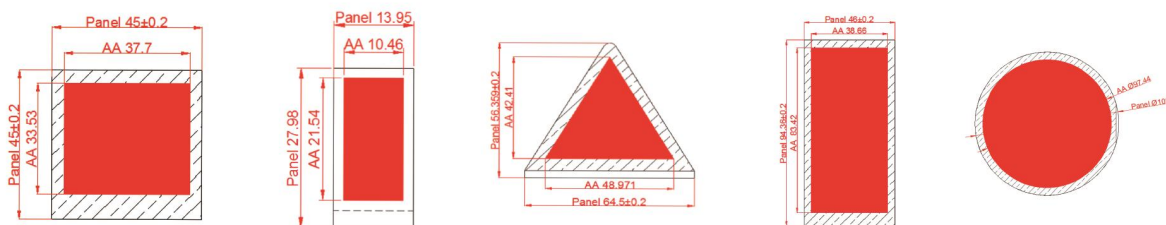
Yeolight Technology has a 2.5 Generation and a 4.5 Generation OLED lighting production and module mass production line. It has the R&D and mass-production capacity for OLED automotive lighting. Currently, it can not only produce OLED light sources in different colours, such as white, red, green and yellow, but also can provide transparent OLED light sources and flexible OLED light source products.

翌光科技产品线覆盖汽车尾灯OLED光源、通用照明白光OLED光源、小型OLED显示屏体以及各种定制化特殊OLED光源等。

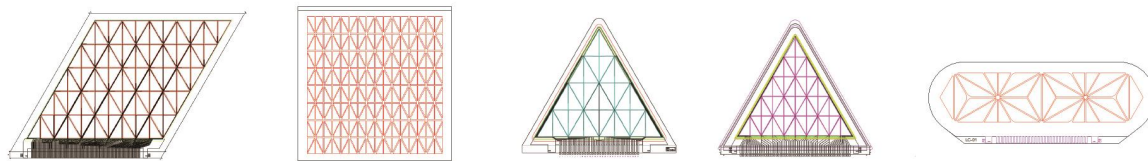
Yeolight' s products include OLED light sources for rear lamps, white OLED light sources for general lighting, small OLED display panels and customised OLED light sources.

下图为翌光科技部分标准屏体, 可以根据客户需求定制不同形状、不同规格、不同发光区的OLED屏体。

Here are some standard panels of Yeolight, different shapes, sizes, light-emitting area divisions can be provided according to customer requirements.

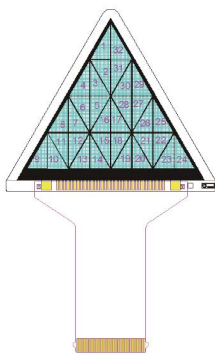


翌光标准屏体 Yeolight Standard Panels

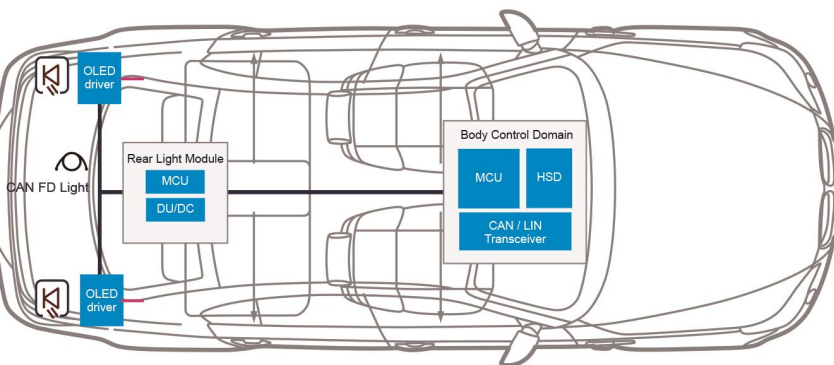


控制方式

Control Method



OLED模组 (OLED屏体+FPC)



控制方式: OLED为恒流驱动器件 (电流与亮度、发光面积成正比, 电压4V-12V), 需采用共阴极高边驱动芯片控制, 如TI的TPS92638 (4channels)、TPS929120 (12channels)、ST的L99LDLH32 (32channels) 等。

Control Method: OLED is a constant-current driver (current proportional to the individual light-emitting area, voltage 4V-12V), need to use common cathode high-side driver chip control, such as TI's TPS92638 (4channels), TPS929120 (12channels), ST's L99LDLH32 (32channels), etc.

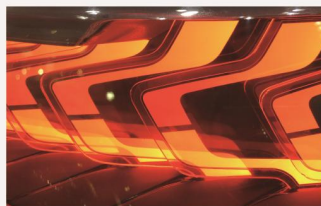
产品优势 Product Advantages



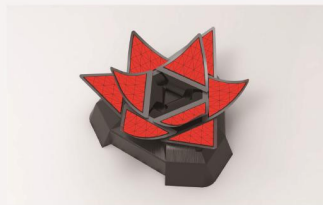
光品质
Light quality



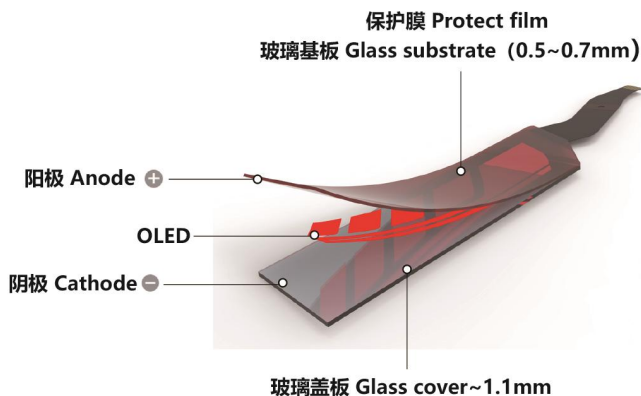
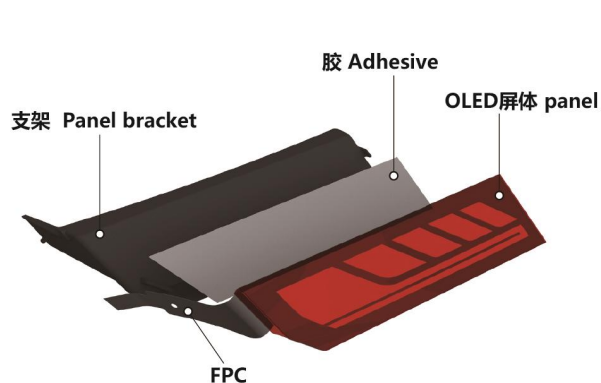
可显示
Display available



透明化
Transparent available



柔性化
Flexible available



红旗H9 OLED屏体小总成
HongQi H9 OLED assembly

不同汽车光源的对比

光源类型



卤素



LED



激光大灯



OLED

光源形式

点状

点状

点状

面状

效率

差

好

优

好

模组

导光、匀光等组件

反射镜、滤光镜等

无需光学组件

成本

低

中

高

高

应用领域

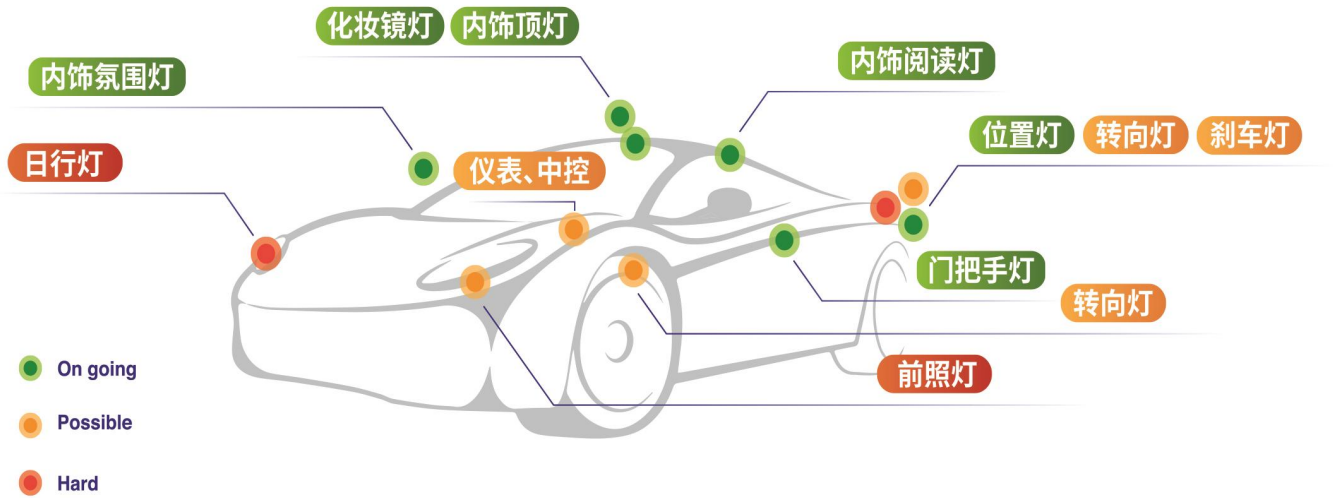
前大灯、尾灯、内饰

前大灯、尾灯、内饰

前大灯

尾灯、内饰

产品应用 Applications



OLED凭借其高颜值、舒适化、数字化、柔性化等优势在汽车照明智能化发展的今天，在众多技术路线中脱颖而出。OLED光源除了轻薄、发光均匀、光照柔和、发热低、无眩光等优势外，也具有透明、柔性、可显示的特点，这些优势可以轻松实现灵活多变的车灯造型，使车灯更具时尚感，进一步丰富了汽车的设计内涵，提升了汽车品牌的辨识度。

The OLED light source, in addition to its thinness, uniformity of light, soft light, low heat and no glare, also has the characteristics of transparency, flexibility and display, which can easily achieve a flexible and changeable lamp shape, making the lamp more fashionable. These advantages make it easy to achieve flexible lamp shapes, making the lights more fashionable, enriching the design connotation of the car and enhancing the recognition of the car brand.

2017年翌光科技与华域视觉合作，成功将OLED尾灯光源应用在小鹏汽车上。2019年与星宇车灯合作，开始为红旗H9车型独家提供汽车尾部位置灯OLED光源。2020年，翌光科技通过对数字化OLED技术瓶颈的突破，多款极具代表性的前沿技术产品应运而生，并将应用于国内外几大主流汽车品牌的新车型上。

In 2017, Yeolight Technology cooperated with Huayu Vision and successfully applied OLED taillight light source to Xiaopeng . 2019, Yeolight Technology cooperated with Xingyu and began to provide OLED light source for the rear position light of the car exclusively for the HongQi H9. In 2020, through the breakthrough of digital OLED technology bottleneck, a number of representative cutting-edge technology products have been created by Yeolight and will be applied to the new models of several major domestic and international car brands.



红旗H9&小鹏汽车
HongQi H9 & XiaoPeng

OLED发光侧标 共有120个可独立控制的像素，其造型为一面飘扬的红旗。通过调节亮度灰阶以及各个独立发光区的点亮顺序，从而得到流畅、立体的红旗飘动效果。



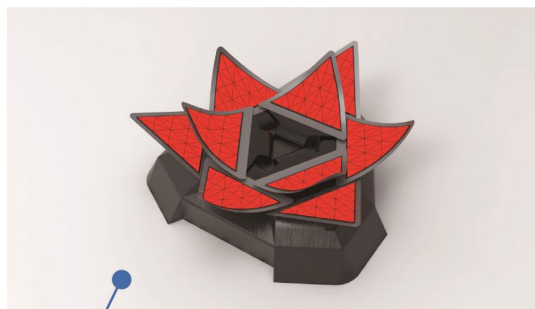
OLED side marker: 120 pixels



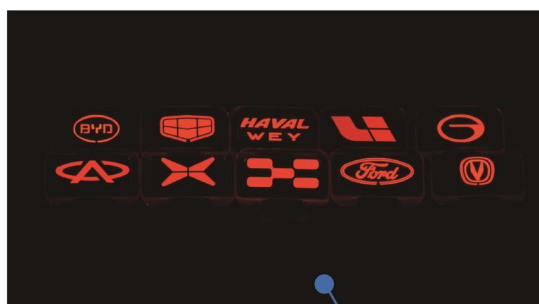
数字化OLED121像素展灯 共有121个像素可显示心跳、心连心、风车等图案，分区发光的设计更好的诠释了数字化车灯，通过对单个发光区的控制，展示不同的图案，实现人车智慧交互。

Digital OLED: 121 pixels

数字化柔性OLED 由9片可以弯折的三角形OLED屏体组成。共有 9×32 个可控像素，造型上可以实现更加立体、多样的设计。



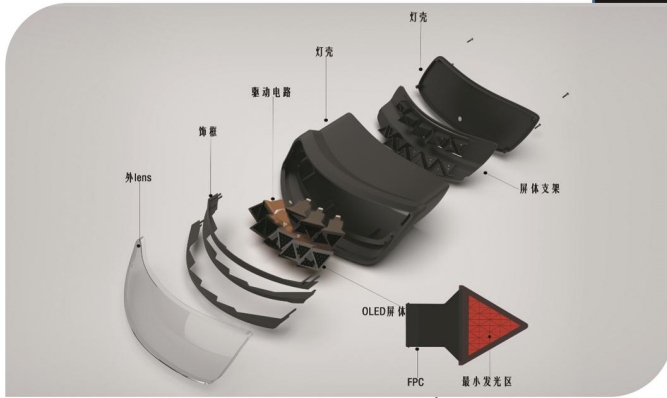
Digital flexible OLED: 9×32 pixels



OLED Logo屏 可以设计和使用在汽车门把手、外饰B柱、方向盘和内饰饰板处，屏体轻薄、发光均匀、logo图形精度高，能够更好地体现汽车的设计元素。

OLED logo

数字化OLED Applications



采用15块OLED屏体上下两层交叠排布，共750个独立可控像素，可以实现动态交互的位置示廓、氛围以及辅助动态转向功能，极大丰富了车灯的视觉体验形式。OLED屏体通过亮度调节来实现灰度变化，再加上三维多角度的造型变化，给大家带来裸眼3D的感官享受。

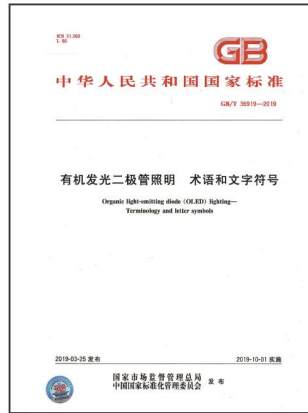
Digital OLED: 15*50 segments

OLED数字化尾灯采用5种屏体形状设计，十余种像素形状设计。共45块OLED屏体，共有1434个形状各异的像素点。可以实现动态美观的交互、装饰功能，定制化的迎宾、欢送功能，以及晶莹剔透的行车示廓功能。

OLED Rear Lamp, Full-Function: position, brake, turning and reverse, with 45 pcs OLED panels, 1434 pixels.



OLED照明国标 GB/T 36919-2019



高新技术企业 High Tech Enterprise



标准认证 Certification



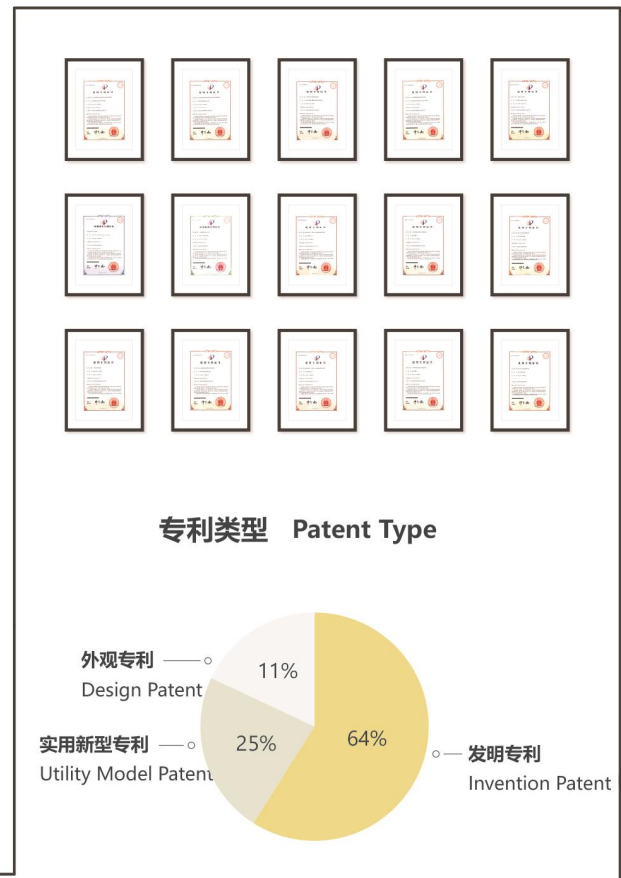
IATF16949



QC080000



ISO9001



截至2022年09月, 翌光共持有专利490余件, 已授权专利281件。其中发明专利为312件, 占比约64%。专利涵盖材料、器件、电路、工艺和设备等领域, 关键技术与核心专利可支撑翌光OLED照明的生产以及应对市场竞争。

2016年9月, 翌光被认定为高新技术企业。

2017年12月, 翌光科技通过ISO9001与QC080000质量体系认证。

2018年1月, 翌光科技获批省级有机发光材料与器件产业技术研究院。

2019年10月, 由翌光主导的国家标准GB/T 36919-2019《有机发光二极管照明 术语和文字符号》正式实施。

2019年11月, 翌光科技获批省级工业研发机构A级。

2020年7月, 翌光科技的“汽车尾灯OLED器件关键技术、工艺及产业化”项目技术成果被中国电子学会鉴定为达到国际先进水平。

2022年8月, 翌光科技获得国家级专精特新“小巨人”企业。



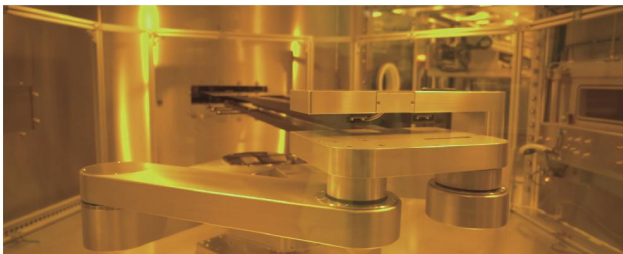
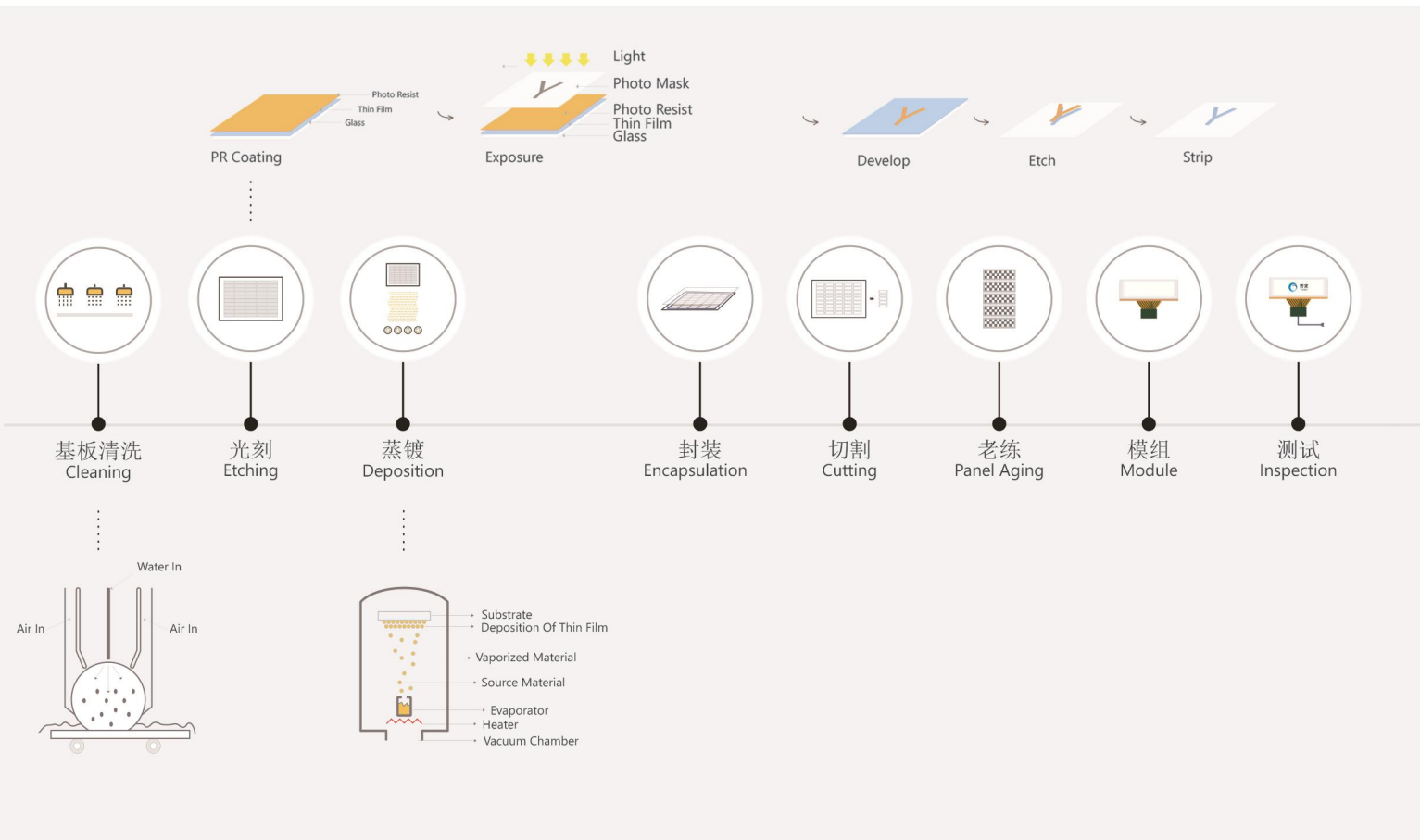
合作伙伴
Partners



...



制备工艺 Fabrication Process



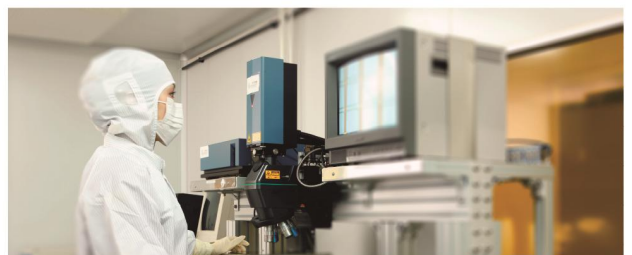
屏体生产自动化、集成化
Automation and integration



无尘车间
Clean room is FS209E Class 1000&100 level



关键工艺自动化监控
Key process automative monitoring



健全的检验体系
Complete inspection system



Light Your Way

www.yeolight.com



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Yeolight OLED Light

