



ProLight Opto Technology Corp.

All-round high power LED packaging service provider

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About ProLight Opto

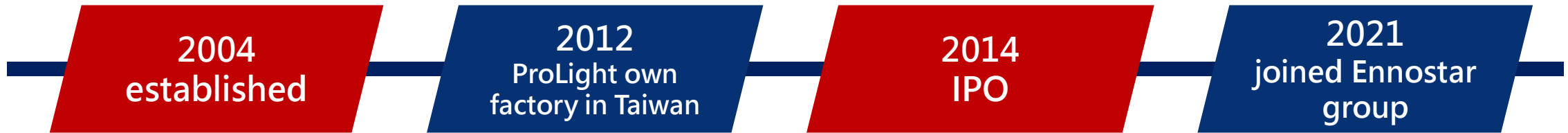
Product line-up

- Automotive
- UV LED
- General lighting
- Specialty lighting
- Entertainment lighting
- IR / VCSEL

Production & Quality

About ProLight

About ProLight



Leadership team

Chairman : HB Chen (Ex-CEO of AUO)

President : Michael Hsing

HQ & Plant : Taoyuan City, Taiwan


Office : Shanghai / Shenzhen

Employee : 300 people

Capacity : 45 KK/ month

Ennostar Group

Ennostar

Epi / Chip	Package / Module	Advanced Compound Semiconductor
EPISTAR	<div> <div> Lextar </div> <div>  ProLight </div> </div> <div> Low-mid power High power </div>	Unikorn
<ul style="list-style-type: none"> • Episky • Epicrystal • Jiangsu Canyang Optoelectronics • Shenzhen Epikylin Optoelectronics 	<ul style="list-style-type: none"> • Yenrich Technology • Hexawave 	
Mini / Micro LED	Sensing	Automotive
	Power Device	5G

Ennostar at a Glance

Founded	January 2021
Paid-in Capital	USD 241 Million (NTD 6.86 Billion)
Group Patents	6,329 (5,531 granted + 798 pending)
Group Revenue (2021)	≈ USD 1,020 Million* (NT 36 Billion)

ProLight's vision & mission

A solid blue diamond shape containing the word "Vision" in white text.

Vision

Realize the infinite possibilities of compound semiconductor applications.

A solid red diamond shape containing the word "Mission" in white text.

Mission

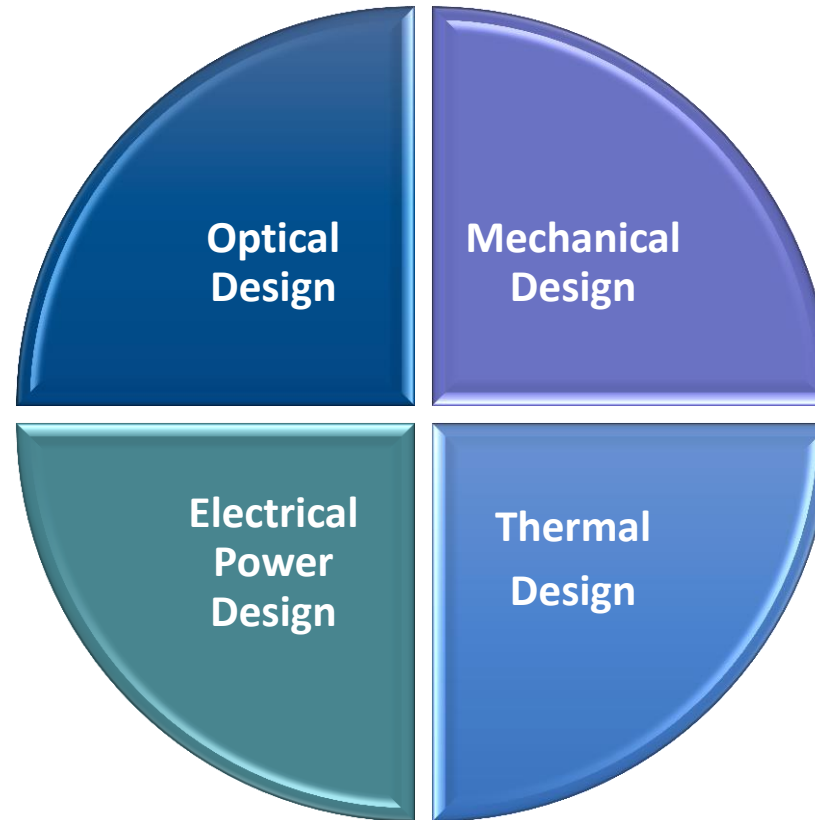
Provide differentiated LED packaging technology for customers with all-round service solutions.

ProLight's capability

Integrated Design · Manufacturer · Service

1. Exclusive Phosphor Tech. to provide excellent color uniformity.
2. Phosphor Color Control Tech.

1. HV LED packaging tech.
2. DOB design.



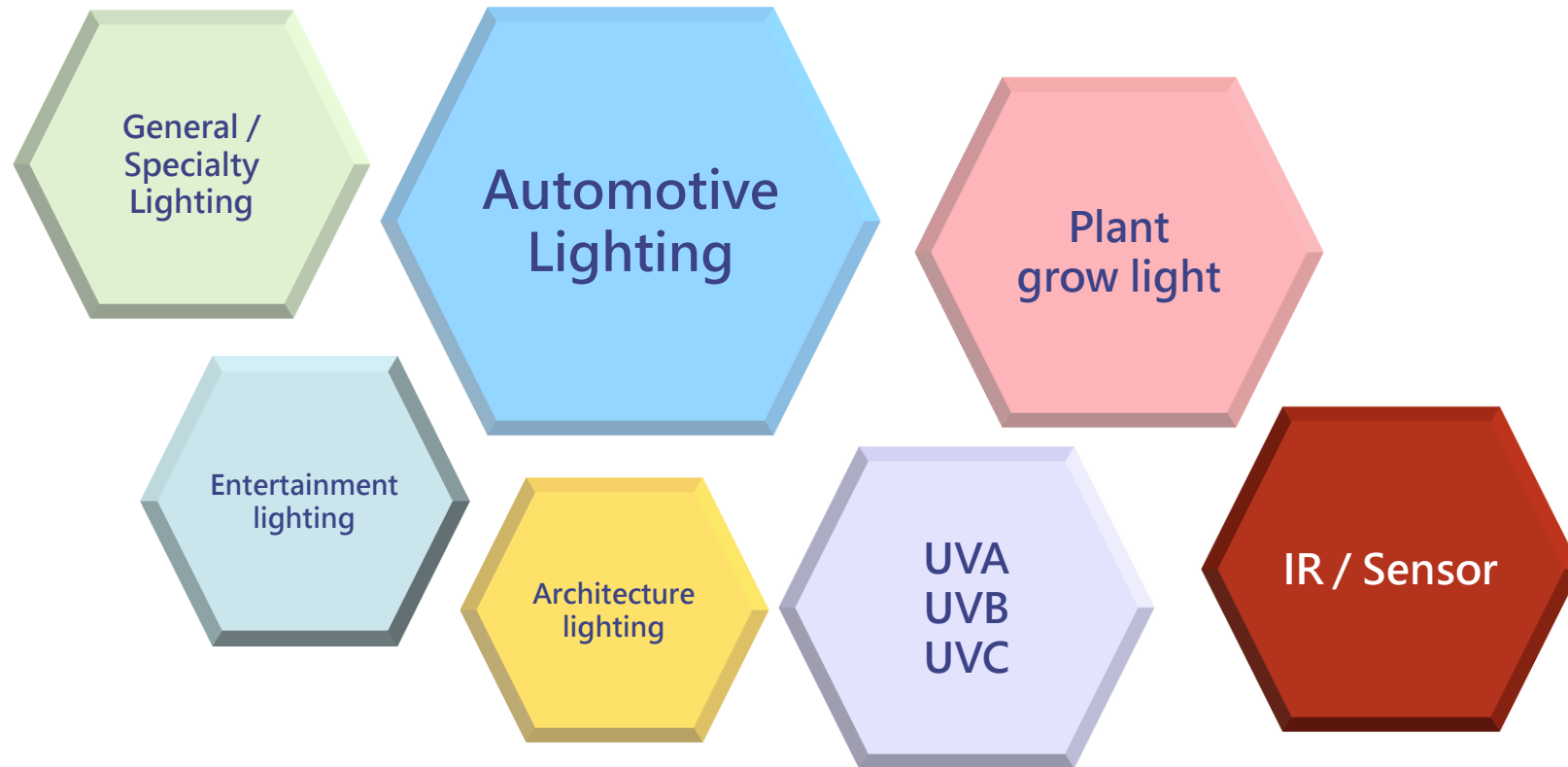
1. All product series passed MSL-1
2. Light module design & SMT production.

1. Dedicated on Vertical / Horizontal / Flip chip design.
2. Various High Thermal Dissipating Substrate design to provide better thermal solution.

Certification



Business segments



ProLight's core product applications

Product line-up

Automotive series

Exterior light



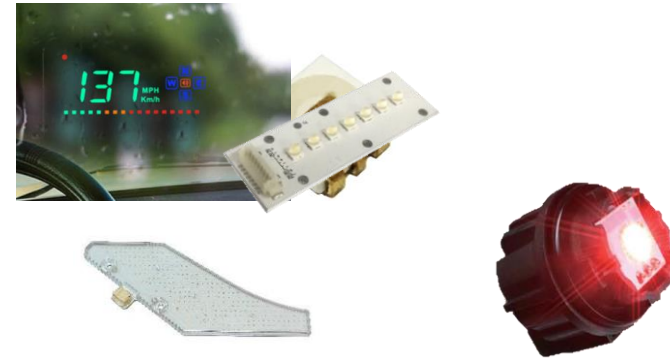
- Headlamp : 1-chip CSP ~9-chip CSP
- Turning light / DRL / Tail light
PLCC6 package : customized-color available
Colors : R/B/W/A/PC Amber



Module



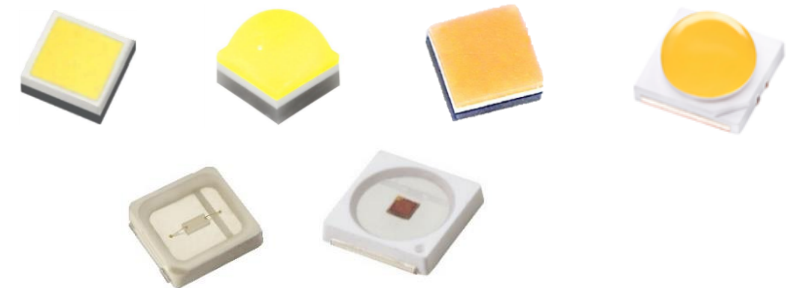
- HUD (Head Up Display)
- Tail light module



Warning Light

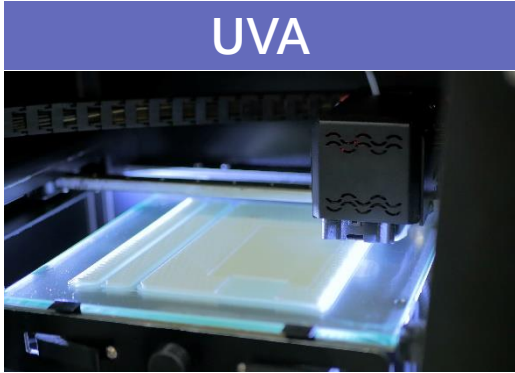


- Various packages :
1616 / 1616+ / 2525 / 3030 / 3535
- Colors : R/B/G/W/A/PC Amber



UV series

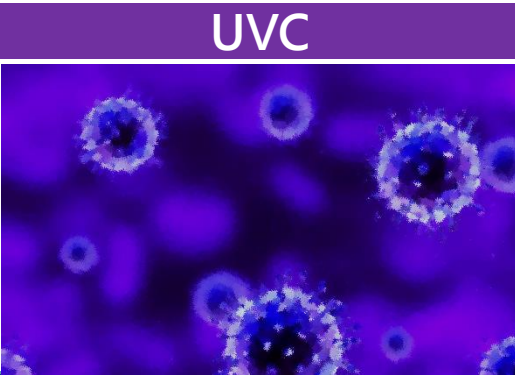
UVA



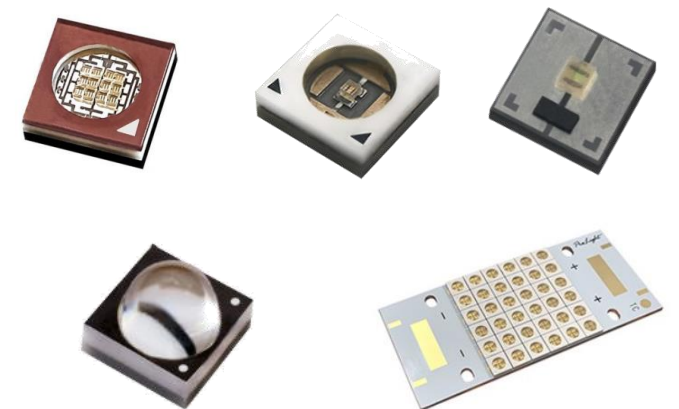
- Application: printing / exposure / ink curing / anti-bacteria
- LED: 3~20W (365nm/385nm/395nm/400nm)
Module: 200W (365nm/385nm/395nm)
- High lux / narrow angle
ProLight is the only one supplying LED with **viewing angle 30° with quartz lens** (better lux)
- Seamless side-by-side module



UVC



- Application: air purification, water sterilization
- **Nano-quartz coating / Quartz lens**
UVC penetration >99%
- Flip chip package
- LED : 0.2~12W (10~150mW)
Module : 100W (1,000mW)

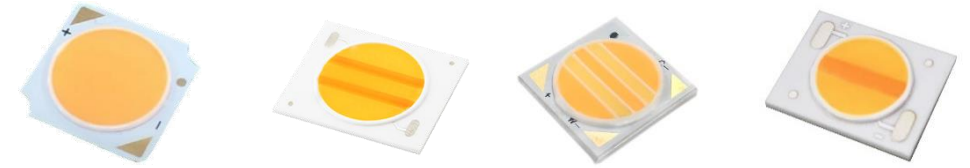


General lighting

Commercial lighting



- High CRI > 90
- Tunable /dim to warm white
- MacAdam 1-step



Human centric



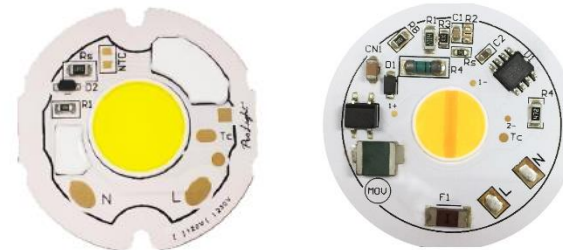
- Reduce blue light hazard
- Increase concentration



Module



- Tunable white
- Exclusive IC power
- AC / DC module



Specialty lighting

Plant growing



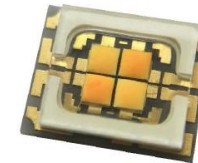
- Package : 3030 / 3535
- Watt : 0.5~4W
- High PPF



Medical



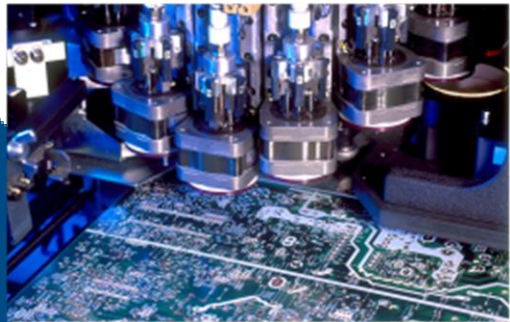
- Surgical lighting : CRI >95, R9 >90
R9 >90 makes the colors of blood, organs, and tissue in the operative field more visible and distinguishable.
- Endoscope : mini LED can be used for Capsule endoscope



Surgical
Light

Endoscope

Industry



- AOI : narrow angle / high flux / good uniformity
- Package : 1616 / 3535



Entertainment Lighting

Architecture



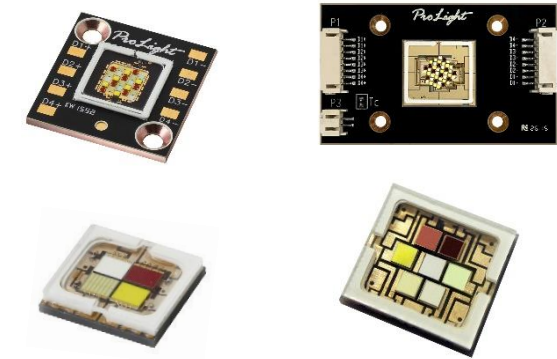
- Exclusive color : customized-color available
- Watt : 0.5W~15W



Stage Light



- COB color : 2-in-1~6-in-1
- LED color : 4-in-1~7-in-1



Studio Light



- CRI >95~98



IR series

IR



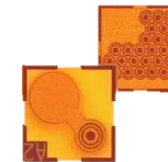
- Applications : CCTV / Car safety system
- Package : 3535 with narrow viewing angle (35° 60° 80° 140°)
- wavelength : 850~1000nm



VCSEL



- Applications : Face ID
- Package : 3030 / 3535



Vcsel chip



Production & Quality

Production control process

Process Control-IQC

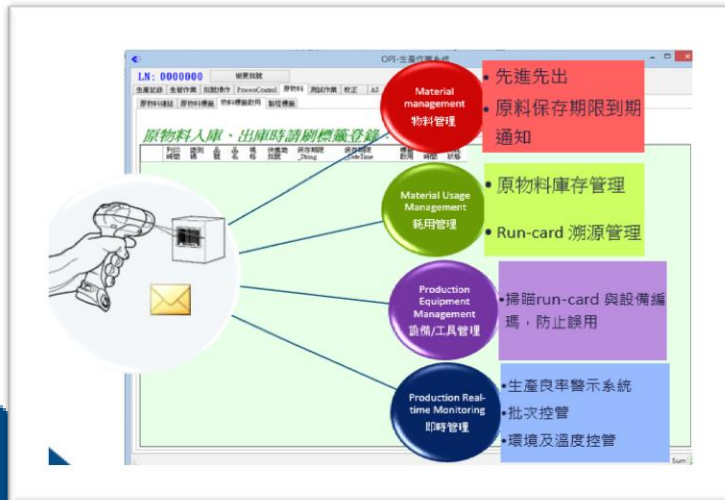
- First in & first use
- Materials Traceability System
- Run-card tracking and management

Auto alert System

- Low Yield Auto-alert / WIP alert
- Specification system
- Delivery date change/ delay notice
- Environment and curing temp. Monitor
- SPC(for automotive) / ORT monitor

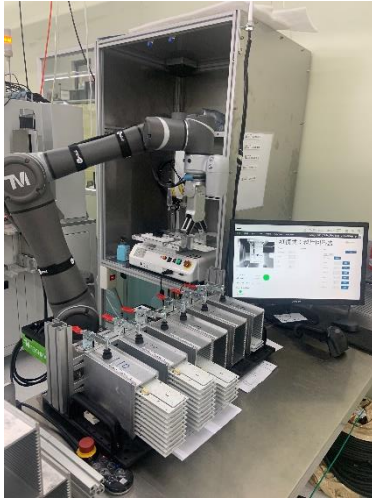
Smart binning

- Intelligent binning & Packing
- Label tracking
- Traceability for each module

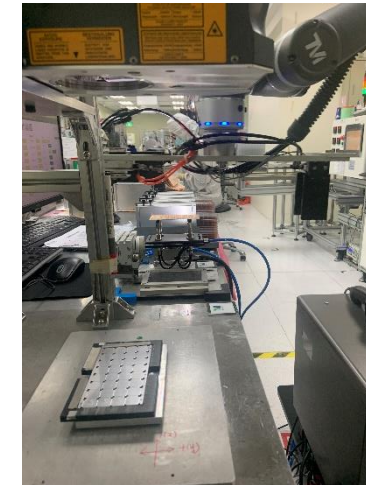


Automated robot arm

Flexible automatic production by robot arm



Phosphor coating station



Laser engraving station

Reliability testing equipment



High temp. life test



Thermal shock chamber



Burn-in life test



Low temp. life test



Wet & Humidity Chamber



IR Reflow chambers





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