

Anrui

安瑞光电
ANRUI OPTOELECTRONICS



Catalog

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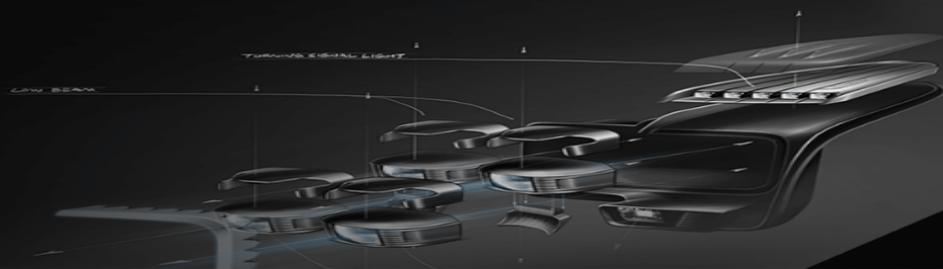
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三安光电股份有限公司（以下简称“三安光电”或公司，证券代码：600703）是具有国际影响力的全色系超高亮度发光二极管外延及芯片生产厂商，总部坐落于美丽的厦门，产业化基地分布在厦门、天津、芜湖、泉州等多个地区，是国家发改委批准的“国家高技术产业化示范工程”企业、国家科技部认定的“半导体照明工程龙头企业”，承担国家“863”、“973”计划等多项重大课题，并拥有国家级博士后科研工作站及国家级企业技术中心。

三安光电的业务主要包括三部分：

全色系超高亮度LED外延片、芯片、化合物太阳能电池及III-V族化合物半导体等的研发、生产与销售。

化合物半导体芯片研发、生产与销售。

汽车照明与安全系统研发、生产与销售。

San'an Optoelectronics Co., Ltd. (hereinafter referred to as "San'an Optoelectronics" or "the Company"; securities code: 600703) is the largest and earliest-established industrialized production base for the top-quality full-color ultra-high bright LED epitaxial wafers and chips in China. Headquartered in the beautiful city Xiamen, the Company has established industrialization bases in different regions, such as Xiamen, Tianjin, Wuhu, Quanzhou, etc. The Company has been rated as the enterprise with "National Model Project of High-tech Industrialization" by the National Development and Reform Commission and the "Leading Company in Semi-Conductor Illumination Projects" by the Ministry of Science and Technology of People's Republic of China. Undertaking several major projects including "863" Program and "973" Program, San'an has established its own National Post-Doctoral Scientific Research Station and National Enterprise Technical Center.

San'an optoelectronics is specialized in 3 business areas:

R & D, production and sales of all-color ultra-high brightness LED epitaxial wafers, chips, compounds, solar cells, and III - group compounds, semiconductors.

R & D, production and marketing of compound semiconductor chips

R & D, production and marketing of automotive lighting and safety systems



安瑞光电为支撑中国业务，布局四个制造基地：华东-芜湖（已建）、西南-重庆（已建，待扩建）、华北-天津（待建）、华南-广州（待建）。To support the domestic business, Anrui has planned 4 manufacturing bases: East China-Wuhu (Constructed), South West China-Chong Qing (Constructed, to be expanded), North China-Tianjin (To be constructed), South China-GuangZhou (To be constructed).

芜湖安瑞光电有限公司成立于2010年，是三安光电股份有限公司全资子公司。公司总部位于安徽芜湖。现拥有安徽芜湖及重庆两个制造地基（其中芜湖基地占地面的约10万平方米，建筑面积约6.5万平方。重庆基地建筑面积约2万平方米）。Wuhu Anrui Optoelectronics Co. Ltd has been established in 2010, a wholly owned subsidiary of San-an Optoelectronics. The company headquarter is located in Anhui Wuhu city. For the time being, there're 2 production bases in Wuhu and Chongqing city. (Wuhu: ground area: 100Km², building area: 65 Km²; Chongqing: building space around 20Km²,)

安瑞光电作为中国汽车灯具工业发展史增速最快的车灯制造企业，安瑞光电主营业务包括汽车级LED光源制造、汽车级电子产品设计制造（重点为本公司使用）、汽车照明系统设计制造三大业务模块。为支撑安瑞光电的长期发展战略，安瑞光电在以汽车照明业务为核心，除主营业务外，又进一步扩展在“可见光通讯、与照明系统相关的传感与控制系统”的前瞻研发工作，并分步实施。Anrui Optoelectronics has been the fastest growing auto lamp enterprise in China since China's auto lamp industry development. Anrui Optoelectronics business covers three models which are automotive LED light source manufacturing, automotive electronic products design and manufacture (mainly for internal production), automotive lighting system design and manufacture. With the purpose of supporting the long-term development strategy of Anrui Optoelectronics, keeping auto lighting business as the core, our company is expanding in the study work of "visible light communication, sensor and control system in relevant with the lighting system" except for the main businesses and planning to implement it step by

为保证我们设计意图的实现，我们在中国布局如下开发机构：

To realize our design intention, we planned below R&D agencies in China.



芜湖安瑞研发中心

Wuhu Anrui R&D Center



芜湖安瑞光电技术总
中心（已建）

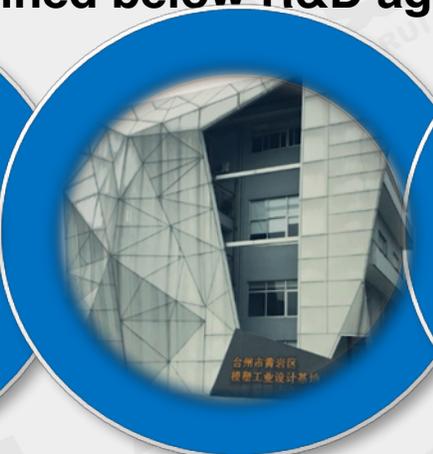


南京电子研发中心

Nanjing Electronics

R&D Center

南京电子研发中心
（已建）



黄岩模具研发中心

Huangyan Mold

R&D Center

浙江黄岩模具技术中
心（已建）



上海前瞻技术研发中心

Shanghai Advanced

Research Center

上海前瞻技术研究中
心（建设中）



天津北方研发中心

Tianjin North R&D

Center (Constructed)

天津北方技术中心
（已建）

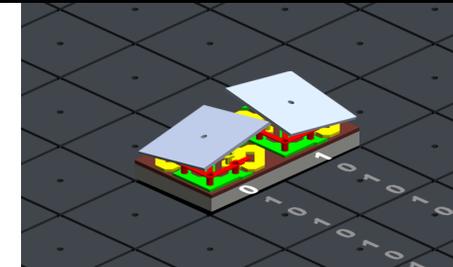
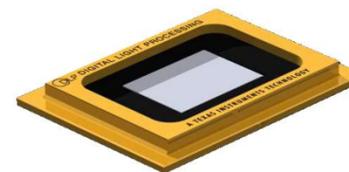
BUICK VERANO(LED ADBXL)



HighBeam 8pcs
LowBeam 8pcs
DRL: 6 pcs

TI: 4pcs
Corner: 3pcs

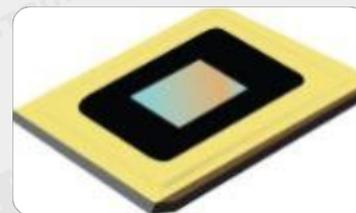
BENZ MAYBACH (DMD)



高达1Million像素的DMD数字化技术，
让照明变的如此美好！



VS



Item	LED Array	DMD
Cost	Low	High 🍷
Develop cycle	Short	Long
User feeling	Normal	Best
Light Efficiency	High	low
Vibration	HiGH	?

1、DMD tech is overuse during the recent years;

DMD技术在先阶段是技术过剩。

2、Strong demands in the development of Headlamp pixel ;

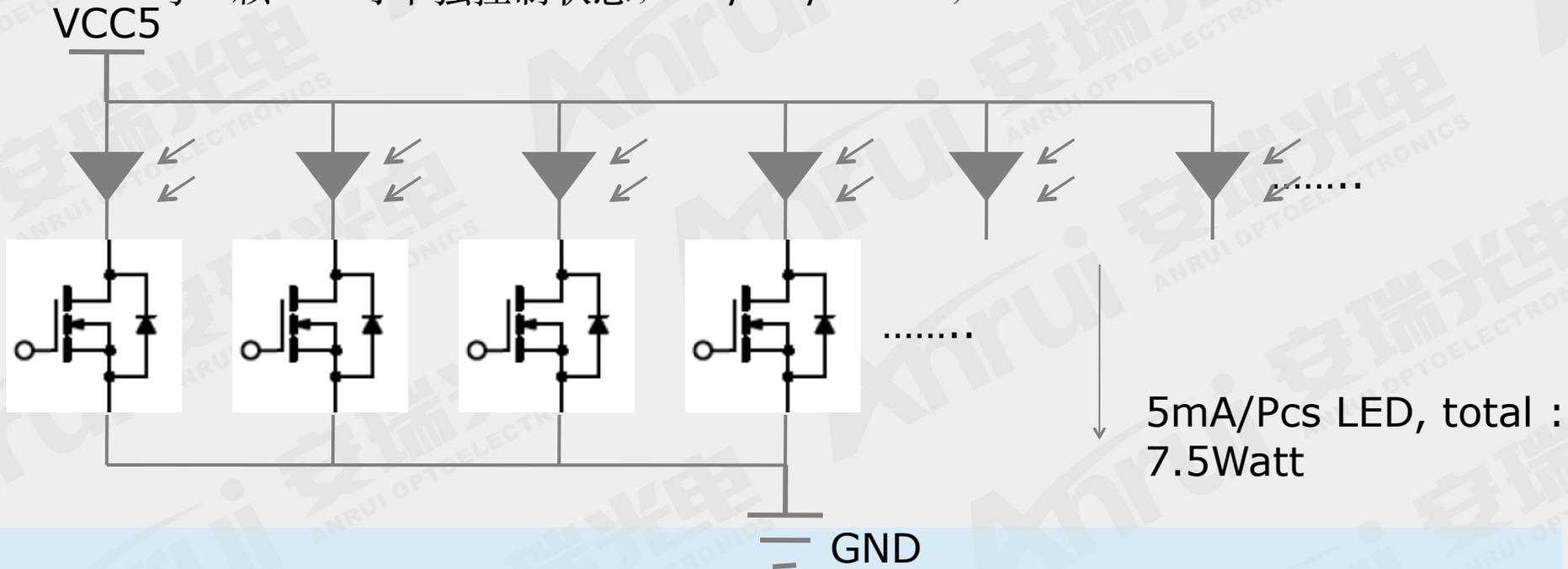
像素化前照灯有强烈的市场需求

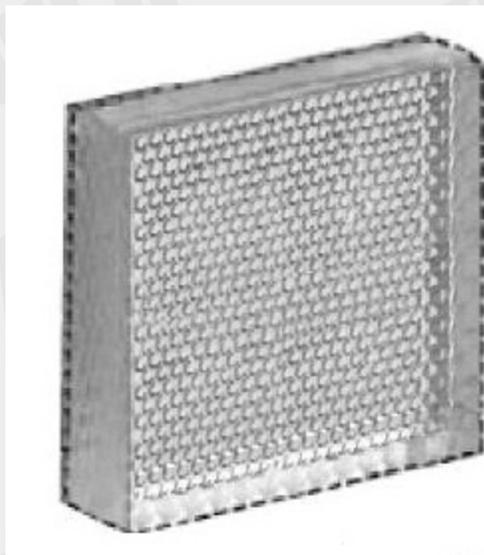
3、Need another plan to satisfy the strong demand?

是否有其它的方案来满足日益增长的需求？

实验条件:

- 1、576pcs (24x24)MiniLED 集成与15mm x10mm的PCBA, 共阳极连接;
- 2、每一颗LED可单独控制状态, On/Off/Dimm;





Mini LED lens array

CAE仿真结果:

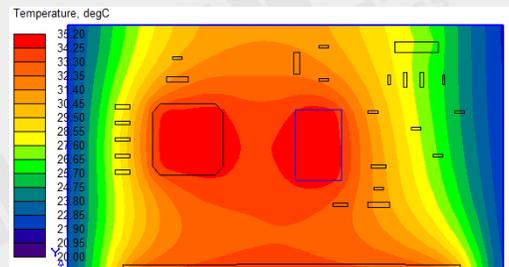
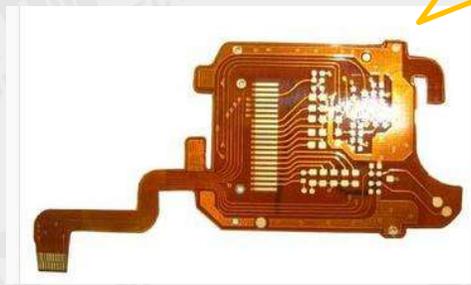


- 1、配光无法满足要求；
 - 2、576pcsLED分辨率偏低；
- 1, light distribution no match the requirements;
2, Resolution ratio

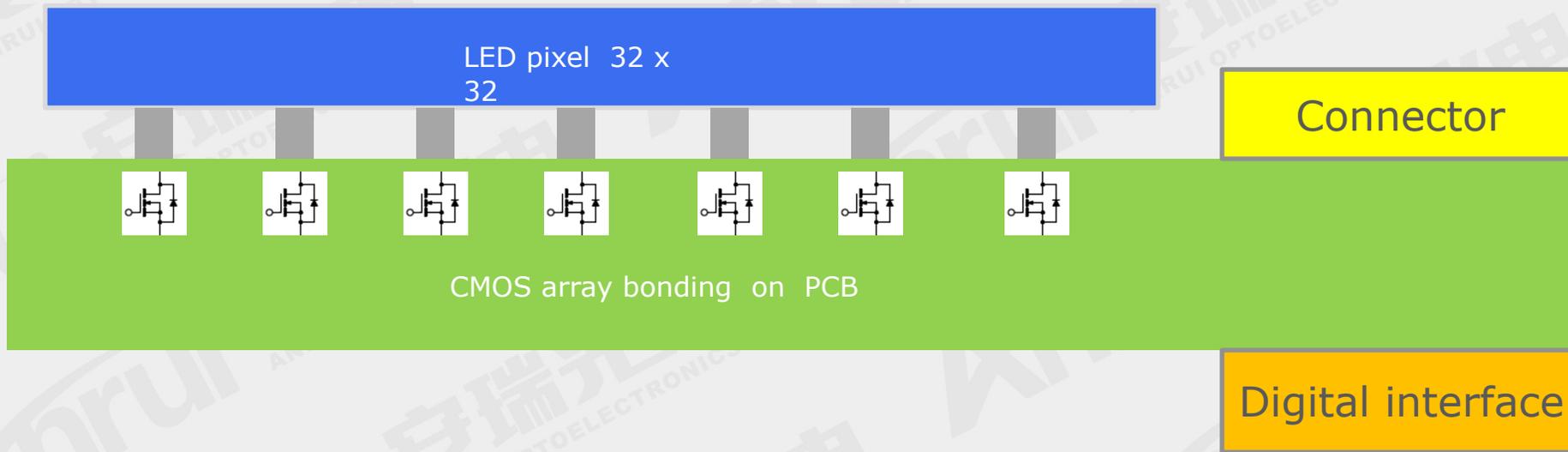


- 3、缺少有效散热方式
Lack of heat radiation

- 4、线束繁杂
Harness complex



LED Module
with Digital
interface





安瑞在中国

Anrui Originated In
China

放眼全球，成为最大的中国LED汽车照明及安全系统集成商。

Globally, China has become the largest automotive lighting and safety system integrator in China led.