



企业宣传画册



地址: 广东省佛山市禅城区华宝南路 18 号
ADD: No.18 South Huabao Road, Chancheng
District, Foshan, Guangdong, P.R. China
网址 (Website) : www.nationstar.com

LED 芯片业务(LED Chips):
电话 (Tel): 86-757-81807068
邮箱 (Mail): Chips@nationstar.com

全彩器件业务(RGB LED):
电话 (Tel): 86-757-82100238-8358
邮箱 (Mail): RGB@nationstar.com

白光器件业务(White LED):
电话 (Tel): 86-757-82109329
邮箱 (Mail): led@nationstar.com

光电子器件业务(Photoelectric Device):
电话 (Tel): 86-757-82100238-8366
邮箱 (Mail): chiplen@nationstar.com

组件业务(LED Module):
电话 (Tel): 86-757-82100238-8380
邮箱 (Mail): ModuleSales@nationstar.com

车载照明与显示业务(Automotive LED):
电话 (Tel): 86-757-82100238-8407
邮箱 (Mail): AutomotiveLED@nationstar.com

2024

时代国星 光芒有你
Time NATIONSTAR, Shining With You



FOSHAN NATIONSTAR OPTOELECTRONICS CO., LTD. (hereinafter referred to as "NATIONSTAR"), established in 1969 with a registered capital of 620 million yuan, is a holding subsidiary and publicly listed company (stock code: 002449) of RISING HOLDINGS Group, a key state-owned enterprise solely owned by the Guangdong provincial government. Specializing in the research, development, production, and sales of LEDs and LED application products, NATIONSTAR is the first enterprise in China to list on the stock market with LED as its main business and one of the earliest manufacturers of LEDs. After 55 years of reform and development, NATIONSTAR occupying an important position in the global LED packaging industry. Its display device market scale ranks among the top in China, and its White LED market scale ranks among the top in the domestic high-end application field. Its component products are core strategic suppliers for internationally renowned home appliance enterprises.

As a national high-tech enterprise, in recent years, NATIONSTAR forming a relatively complete scientific and technological innovation system in the electronic information field. It has established multiple national research platforms such as a postdoctoral research workstation and a national and local joint engineering laboratory for semiconductor lighting materials and devices, undertaken more than 20 national scientific research projects, including the National "863" Program and the National Torch Program, as well as more than 80 provincial and ministerial projects. Particularly focusing on the research and production of LED components, Mini displays, LED epitaxy and chips, and non-visual light sources, NATIONSTAR has made great efforts to tackle key core technologies and strive to solve "bottleneck" problems in the semiconductor field. It occupies a leading technological position in the fields of LED ultra-high-definition displays, new optoelectronic devices and applications, and third-generation power semiconductors. A batch of high-tech products has been successfully applied in important venues such as the 2022 Beijing Winter Olympics, the 70th Anniversary Parade of the Founding of the People's Republic of China, the Boao Forum for Asia, the Olympic Games, and Beijing Daxing International Airport. As of now, NATIONSTAR has applied for more than 1,000 patents and has been granted over 700 patents. It won the First Prize of the National Science and Technology Progress Award in 2019, achieving a major breakthrough for provincial enterprises in winning the First Prize of the National Science and Technology Progress Award. In 2021, the company won the First Prize of the Guangdong Provincial Science and Technology Progress Award for the year 2020. In 2023, it won the China Patent Gold Award and was selected into the list of "benchmark" scientific and technological reform demonstration enterprises by the State-owned Assets Supervision and Administration Commission of the State Council.

Moving forward, NATIONSTAR will persist in serving national strategies, supporting national construction, and leading industry development. We will strengthen, optimize, and expand our core LED packaging business, while specializing, refining, and deepening our presence in emerging industries such as smart displays, smart wearables, and intelligent control modules. To provide customers with high-quality and high-performance products and comprehensive and thoughtful services, and to work hand in hand with more excellent partners to achieve a higher level of win-win development.

佛山市国星光电股份有限公司（简称“国星光电”）成立于1969年，注册资本6.2亿元，是广东省属国有独资重点企业广晟控股集团控股上市公司（股票代码：002449），专业从事研发、生产、销售LED及LED应用产品，是国内第一家以LED为主业首发上市的企业，也是最早生产LED的企业之一。经过55年的改革发展，国星光电在全球LED封装行业占据重要地位，显示器件市场规模名列国内前茅，白光器件市场规模位居高端应用领域国内前列，组件产品为国际知名家电企业的核心战略供货商。

作为国家高新技术企业，近年来国星光电形成了电子信息领域相对完备的科技创新体系，搭建了博士后科研工作站、半导体照明材料及器件国家地方联合工程实验室等多个国家级科研平台，承担了国家“863”计划项目、国家火炬计划项目等国家级科研项目20多项，省部级项目80多项，特别是聚焦LED元器件、Mini显示、LED外延及芯片、非视觉光源等产品的研制、生产，狠抓关键核心技术攻坚，着力破解半导体领域“卡脖子”难题，在LED超高清显示、新型光电子器件及应用、第三代功率半导体等领域占据技术主导地位，一批高科技产品在2022北京冬奥会、新中国成立70周年阅兵、博鳌亚洲论坛、奥运会、北京大兴国际机场等重要场所得到成功应用。截至目前，国星光电已申请专利超千项，已授权专利达超700项，荣获2019年国家科技进步奖一等奖，实现了省属企业国家科技进步一等奖的重大突破。2021年公司荣获2020年度广东省科技进步奖一等奖，2023年荣获中国专利金奖，并入选国务院国资委“标杆”科改示范企业名单。

接下来，国星光电将持续以服务国家战略、支撑国家建设、引领行业发展为己任，做强做优做大LED封装主业，做专做精做深智能显示、智能穿戴、智控模块等新兴产业，为客户提供高品质高性能的产品和全面周到的服务，与更多优秀的合作伙伴携手并进，实现更高水平的共赢发展。



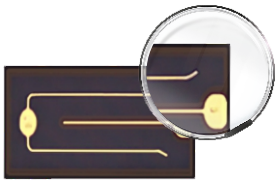
- 国家科学技术进步奖一等奖
1st Prize of National Sci-tech Progress Awards
- 国家科学技术进步奖二等奖
2nd Prize of National Sci-tech Progress Awards
- 中国专利金奖
China Patent Award
- 国家制造业单项冠军企业
Single Champion Product of Manufacturing Industry in China
- 国务院国资委“科改示范企业”标杆
A Benchmark in Scientific and Technological Innovation Enterprises of SASAC
- 国家知识产权示范企业
National Manufacturing Individual Champion Enterprises
- 国家知识产权优势企业
National Intellectual Property Superior Enterprise
- 国家高新技术企业
National High-tech Enterprise
- 中国专利奖优秀奖
China Excellence Patent Award
- 广东省科技进步奖一等奖
1st Prize of Guangdong Sci-Tech Progress Awards
- 广东省技术发明一等奖
1st Prize of Guangdong Tech Invention
- 广东省科技进步奖二等奖
2nd Prize of Guangdong Sci-Tech Progress Awards
- 广东专利优秀奖
Guangdong Patent Award
- 广东省名优高新技术产品
Guangdong's Famous High-tech Products
- 广东省制造业单项冠军产品
Guangdong Provincial Manufacturing Champion Product



LED芯片 LED Chips

公司掌握先进核心技术，拥有可用于照明、显示、背光、紫外等领域的LED外延材料和芯片，并成立全资子公司国星半导体，专门从事LED芯片的开发与制造。

The company has advanced core technology. It has LED epitaxial materials and chips for lighting, display, backlight, UV, etc. The subsidiary of sole investment of NATIONSTAR, NATIONSTAR Semiconductor Company, which specializes in the development and manufacture of LED chips, has been set up.



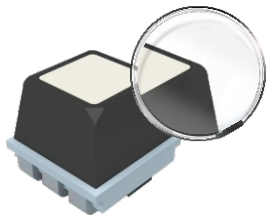
- 高清显示LED芯片
LED Display Chips
- 消费类电子LED芯片
Consumer Electronics Chips
- 车用大功率LED芯片
Automobile High-power Chips
- Mini/Micro LED芯片
Mini/Micro Chips

LED封装 LED Packaging

LED封装为公司主业，其中LED全彩器件市场规模位居国内前列，小间距系列位居全球前列；LED白光器件在高端应用领域市场规模位居国内前列；LED特种器件和LED指示器件也在市场上积累了良好的口碑，并成功进入国际知名品牌供应链。

LED Packaging is the core business of the company. The market scale of the company's LED full-color devices takes the lead in the domestic market and that of the small-spacing products takes the lead in the global market. The market scale of White LED devices in the high-end application field is in the leading position in the domestic market. LED special devices and LED indicators also enjoy a good reputation in the market and they have successfully entered the supply chain of some world-famous brands.

LED显示封装器件 Components for Display



- 户内显示系列
Indoor Display Series
- 户外显示系列
Outdoor Display Series
- 小间距系列
Small Spacing Series
- Mini LED in Package系列
Mini LED in Package Series
- 新型显示内置IC产品系列
Built-in IC Product Series

LED白光封装器件 Components for Lighting



- 高光效照明
General Lighting LED
- 健康全光谱
Eyelove Health Lighting LED
- 智慧&氛围照明
Vehicle & Atmosphere LED
- 户外&工业照明
Outdoor & Industry LED
- 生物光学器件
Landscape Lighting LED
- 背光器件
Backlight LED
- LAMP
LAMP

CHIP LED封装器件 Components for Indicating



- CHIP侧发光
CHIP Side View
- CHIP指示
CHIP Indicator
- CHIP红外光敏
CHIP Infrared and Photo Transistor
- CHIP车载
CHIP Vehicle
- CHIP感测
LAMP

光电耦合器 Optocoupler



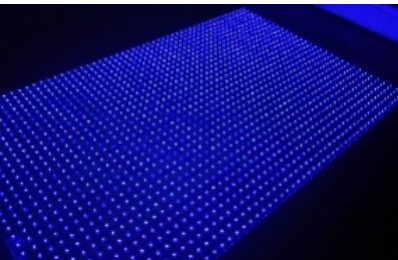
- DIP4/SMD4系列
DIP4/SMD4 Series
- LSOP4系列
LSOP4 Series
- DIP6系列
DIP6 Series
- SOP4系列
SOP4 Series
- SSOP4系列
SSOP4 Series

LED应用 LED Applications

国星组件主要为国际知名家电企业专业定制显示模块、控制板，为电视企业专业开发生产大尺寸LED背光源。国星工程应用主要为植物照明、智能照明及商超工程，提供解决方案。

NATIONSTAR customizes LED display modules and control panels for world-famous household appliance enterprises and it also develops and produces large-sized LED backlight for TV manufacturers. NATIONSTAR engineering application focuses on providing solutions for plant lighting, intelligent lighting and lighting engineering of shopping malls and supermarkets.

LED组件 LED Modules



- Mini LED背光
Mini LED Backlight
- 智能显示模块
Intelligent Display Module
- 氛围灯模组
Atmosphere Lights Module
- TV背光灯条
Backlight Strip for TV
- 智能感应模组
Intelligent Induction Module
- 智能控制
Intelligent Control
- MNT背光灯条
Backlight Strip for MNT
- 轻薄显示
Thin & Light Display
- 家电用小尺寸背光
Small Size Backlight for Appliances
- 车载背光灯条
Backlight Strip for Automotive

汽车专用LED Automotive LED



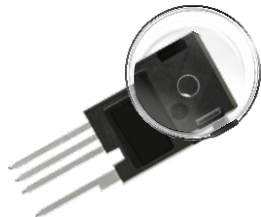
- 车外交互显示器件与模组
Interactive display devices and modules for automotive exterior
- 汽车照明器件
Automotive lighting devices
- 信号灯器件
Automotive signal devices
- 车内屏幕背光器件与模组
Backlight devices and modules for automotive interior
- 汽车内饰灯器件
Automotive interior lighting devices

半导体封测 Semiconductor Packaging and Testing

国星光电积极布局半导体封测领域，在第三代半导体领域拥有SiC功率器件、SiC功率模块、GaN器件三大优势产线系列；同时子公司风华芯电拥有坚实的半导体封测基础和完备的封测产品布局，助力国星光电打造高可靠性及高品质优势的“三代半功率器件封测企业”。

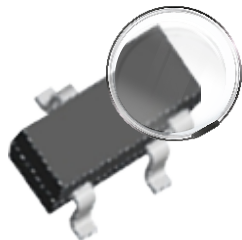
NATIONSTAR Optoelectronics strategically positions itself in the semiconductor packaging and testing sector, excelling in the third-generation semiconductor domain with three prominent production lines: SiC power devices, SiC power modules, and GaN devices. Simultaneously, its subsidiary, Fenghua Semiconductor, boasts a robust foundation and a comprehensive product portfolio in semiconductor packaging and testing, empowering NATIONSTAR Optoelectronics in establishing itself as a "third-generation power semiconductor packaging and testing enterprise" renowned for its high-reliability and top-quality.

第三代半导体 Third Generation Semiconductor



- SiC分立器件
SiC Power Device
- SiC功率模块
SiC Power Module
- GaN-IC
GaN-IC
- GaN电源方案
GaN Power Scheme

集成电路封装测试 IC Packaging and Test



- SOD/SOT系列
SOD/SOT Series
- SOP系列
SOP Series
- DFN/QFN系列
DFN/QFN Series
- TO系列
TO Series



LED高清显示 LED Display

国星LED全彩器件是显示屏的核心发光器件，其具有亮度高、对比度高、可靠性高等特点，可为各类户外显示屏提供高清、绚丽、卓越的显示效果。随着人们对高清显示的需求越来越高，国星Mini显示LED可应用于大尺寸电视、安防监控等领域。

As the core light-emitting unit of display screen, LED full-color devices by NationStar, feature high brightness, contrast and reliability likewise, enabling high-resolution, vibrant and remarkable display of varied screens, set indoors and outdoors. As much as high-definition effects on the rise, NATIONSTAR delivers mini display LED specially for large-size TV, or closed-circuit television cameras (CCTV).



LED显控模组 LED Display Module

国星光电的显控模块主要应用于空调、洗衣机、微波炉、热水器等家用电器的显示面板。作为配件，国星组件产品跟随家用电器走进千家万户，为消费者带来清晰、明快的使用体验。

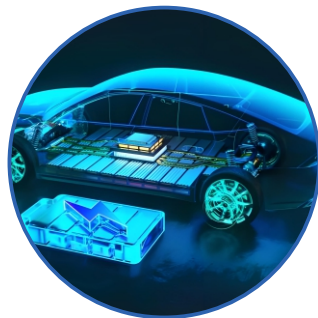
Display modules crafted by NATIONSTAR, mostly go to display panels of household electric appliances, like air conditioner, washing machine, microwave oven, water heater and more. As built-in fittings, NATIONSTAR component products, hand in hand with appliances, have entered households, complete with a clear and crisp use experience.



LED健康智能照明 LED Healthy Intelligent Lighting

白光LED是各类高端照明灯具的核心部件。国星健康、智能照明器件具有光色一致性好、色彩还原度高、长寿命高可靠性等特性，可实现低蓝光、全光谱、自适应类自然光调光应用，广泛应用于教育照明、家居照明、商业照明等应用场景。

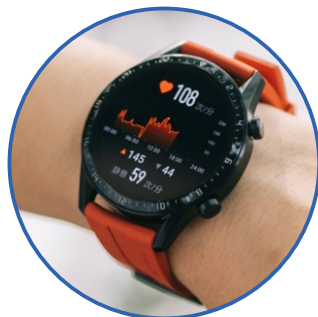
White LED is a core component in various high-end lighting fixtures. NATIONSTAR's health and smart lighting devices feature consistent light color, high color rendering index, long lifespan, and high reliability. They enable low-blue light, full-spectrum, and adaptive natural-light-like dimming applications, widely used in education, home, and commercial lighting scenarios.



半导体封测 Semiconductor Packaging and Testing

国星光电将集成封装和第三代半导体业务作为培育新质生产力的重点方向。子公司风华芯电拥有20余条国际先进水平的半导体封装测试自动化生产线，可生产包括TO、SOT、SOD、SOP、TSSOP、QFN、DFN、IPM等在内的20多个封装系列。产品广泛应用于消费类数码产品、汽车电子、计算机多媒体、网络通讯、工业控制等领域。

NATIONSTAR is nurturing Integrated Packaging and Wide-Bandgap Semiconductors as new quality productive forces. Fenghua Semiconductor Co. Ltd., affiliate company of NATIONSTAR, can provide production for more than 20 types of packages including TO, SOT, SOD, SOP, TSSOP, QFN/DFN, and IPM. The products are using in consumer electronics, automotive electronics, computer devices, network stations, and industrial control fields.



智能光传感 Intelligent Photoelectric Sensor

国星光电智能光传感产品包括光电二极管、光电晶体管以及发射管，可以实现从UV到近红外的光谱范围的发射与接收功能。产品性能和质量稳定，已经广泛适用于各个市场领域，包括汽车、工业、可穿戴设备、消费以及医疗健康。

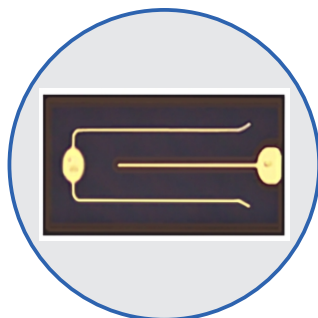
NATIONSTAR intelligent photoelectric sensor products include photodiodes, phototransistors and emission tubes, which can transmit and receive functions in the spectral range from UV to near-infrared. Consistent product performance and quality, which has been widely used in various market sectors, including automotive, industrial, wearables, consumer, and healthcare.



车载LED产品 Automotive LED

国星光电车用系列LED有亮度高、光效高、热阻低、可靠性好的特点，已陆续被应用到长安、上汽、比亚迪、现代、问界、五菱等车型的创新应用。

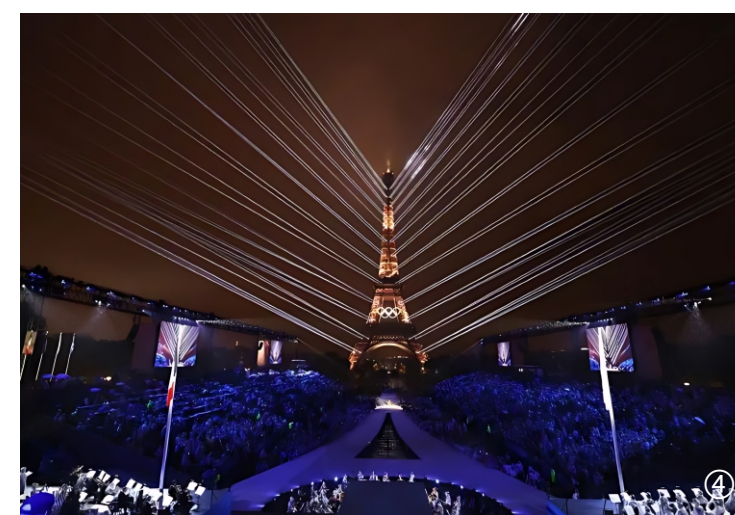
NATIONSTAR's automotive LED products have the characteristics of high luminance, high luminous efficacy, low thermal resistance and high reliability. And Some of them had been used in the creative applications of the electric vehicles, such as IM L6 of SAIC and AVATR 12 of Changan.



GaN基芯片 GaN-based Chips

国星GaN基芯片具有出光效率高，抗静电击穿能力强，发光一致性好，长期可靠性优等特点，随着应用市场的不断开拓，目前已被广泛应于超高清显示、汽车、数码指示、智能穿戴、紫外固化等新兴应用领域。

NATIONSTAR's GaN-based chips offer high light output efficiency, strong resistance to electrostatic breakdown, consistent light emission, and long-term reliability. With the continuous expansion of application markets, they have been widely adopted in emerging fields such as ultra-high-definition displays, automotive, digital signage, smart wearables, and UV curing.



- ①2022北京冬季奥运会开幕式显示屏
LED Display for Opening ceremony of 2022 Beijing Winter Olympic Games
- ②新中国成立70周年联欢活动显示屏
LED Display for Procession and Celebration in Honor of CPC 70th Anniversary
- ③2021庆祝中国共产党成立100周年文艺演出舞台显示屏
Stage Specially LED Display for In Honor Of 2021 CPC's 100th Anniversary Artistic Show
- 2024年巴黎奥运会开幕式现场显示屏
LED Display for Opening ceremony of 2024 Paris Olympic Games



- ①美国纽约时代广场裸眼3D大屏
3D Curved Monitor Set At Times Square,
New York, USA
- ②2017金砖国家峰会
LED Display for BRICS Summit
- ③2018博鳌亚洲论坛显示屏
LED Display for Boao Forum for Asia
- ④2024年阿黛尔慕尼黑演唱会显示屏
LED Display for Adele Live in Munich 2024



- ①佛山石湾宝峰塔亮化工程
Foshan-Baofeng Tower
- ②太原南站西广场亮化工程
Taiyuan-Shopping Mall
- ③青岛火车北站亮化工程
Qindao-North Railway Station
- ④石家庄地铁照明项目
Shijiazhuang-Subway Station



语音模组
显示模组
氛围灯



触摸显示面板



按键显示模组
柔性灯条



紫外杀菌模组



背光产品



车载显示

②

- ①模块应用场景
Module Applications
- ②新式背光应用场景
Backlight Applications

