

股票代码: 002449



Mini LED

产品手册

2023

RGB器件事业部

— RGB LED DIVISION —

 佛山市国星光电股份有限公司
FOSHAN NATIONSTAR OPTOELECTRONICS CO.,LTD.

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公司简介

BRIEF INTRODUCTION OF COMPANY



佛山市国星光电股份有限公司（股票代码：002449）成立于1969年，是专门从事研发、生产、销售LED及LED应用产品的国家高新技术企业。2018年Q2营收位列全球LED封装厂TOP8（IHS Markit）。

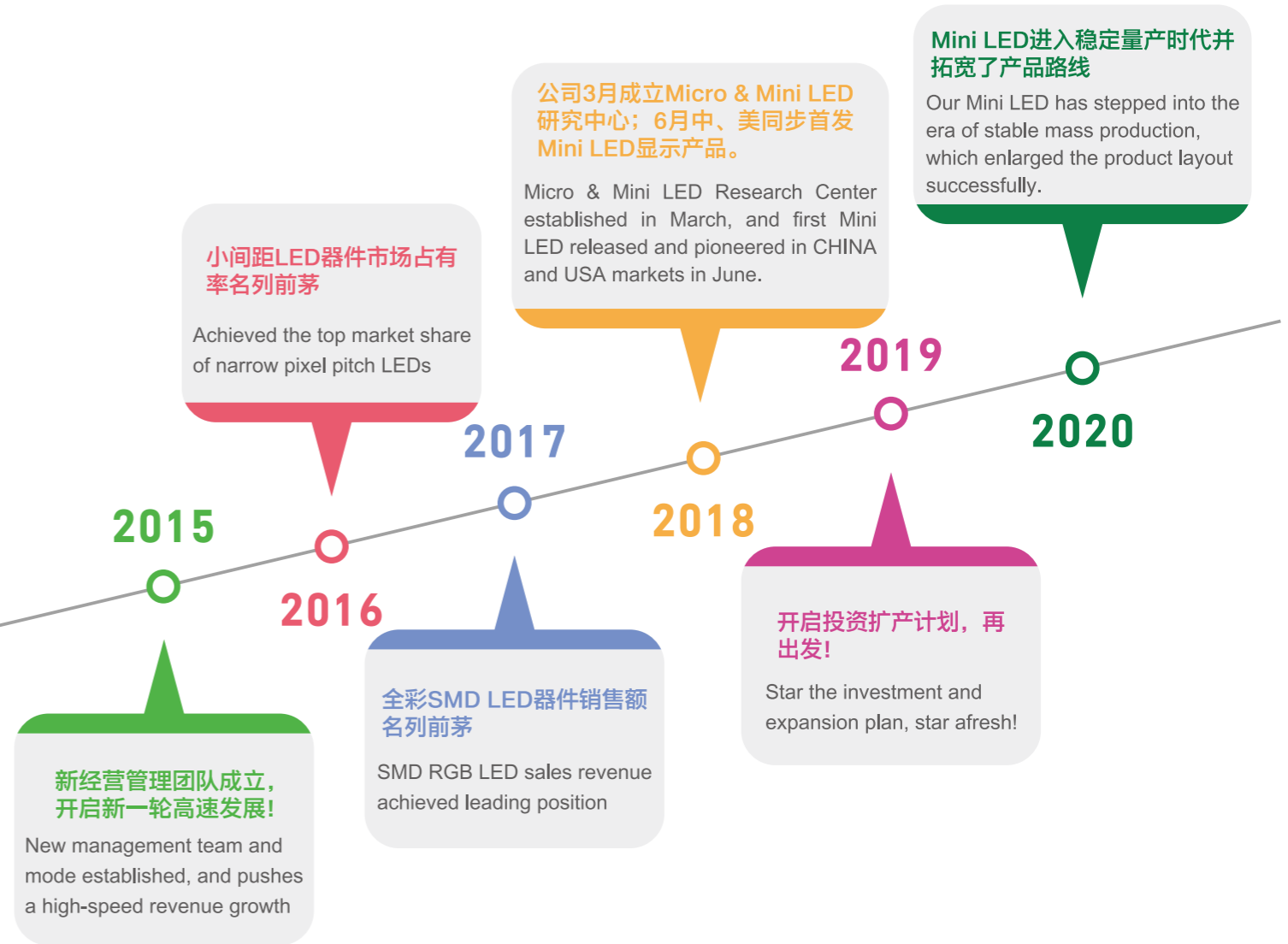
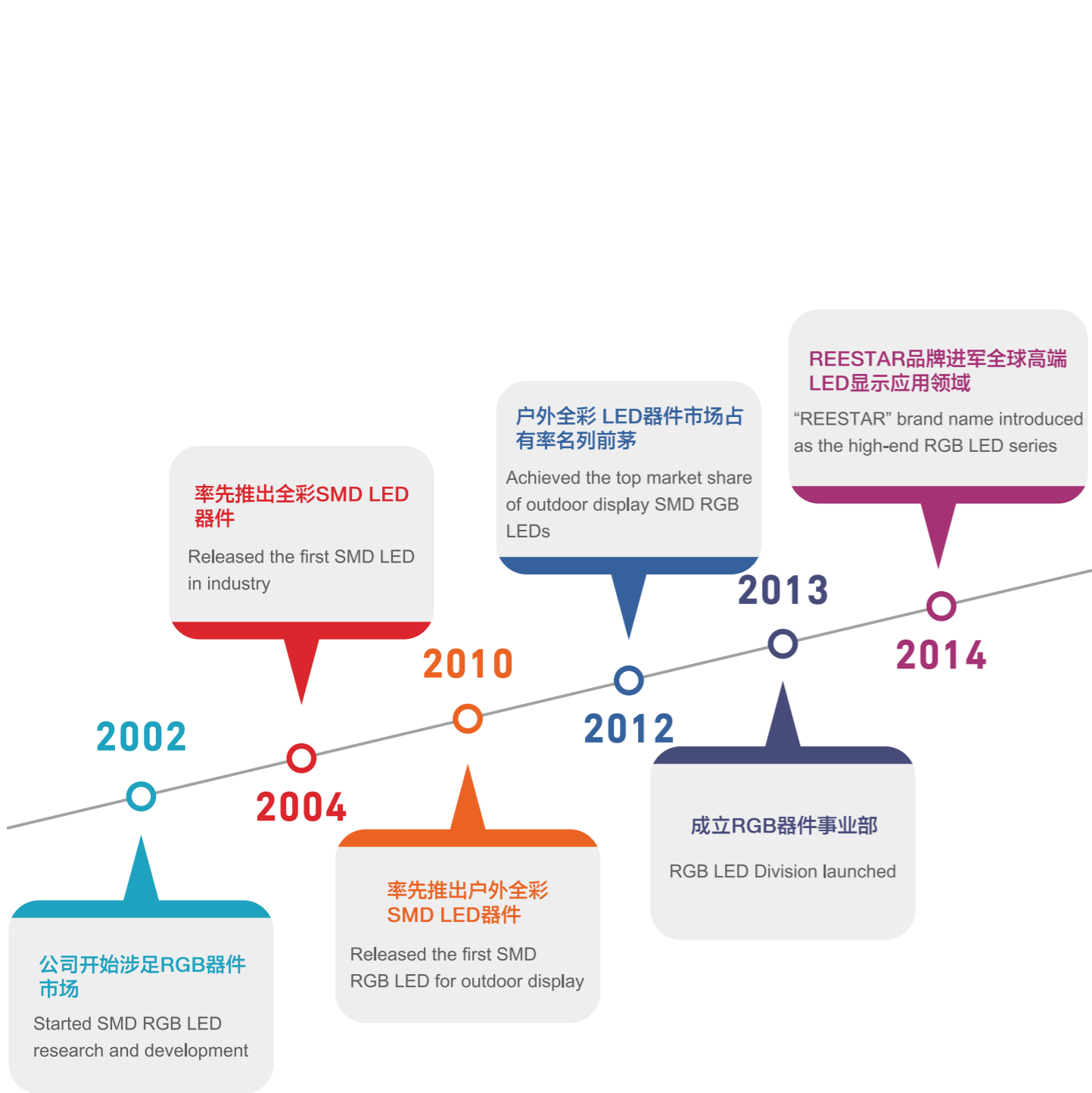
RGB器件事业部是国星光电营业额最大的事业部，其致力于研发、生产、销售LED显示器件、Mini LED显示等产品。

Foshan NATIONSTAR Optoelectronics Co.,Ltd. (SZ stock exchange market code: 002449) was established in 1969, it started to specialized in LED and LED applied products development, manufacturing and sales since 1976. Global TOP 8 LED Encapsulation Manufacture in Q2 2018 (IHS Markit) .

RGB LED Division is the biggest division in NATIONSTAR company. It has been dedicated to develop, manufacture, and sell various SMD RGB display LEDs, as well as Mini LED display products.

RGB器件事业部发展历程

RGB LED DIVISION HISTORY



Micro&Mini LED研究中心简介

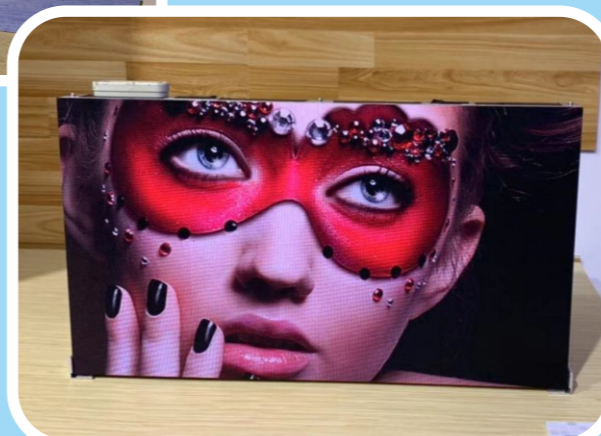
随着LED显示进入更高层次的技术探索阶段，Micro LED & Mini LED已经成为超高清LED显示领域发展的主要趋势。为推动该趋势产业化，国星光电于2018年3月2日率先成立Micro & Mini LED研究中心。6月8日，首款Mini LED全球首发会在广州香格里拉大酒店隆重召开，并在美国Infocomm视听展上同步公开展示。该首款Mini LED（型号IMD-M09）的发布标志着LED显示行业正式步入P0.X时代。

Micro & Mini LED研究中心将致力于Mini LED显示（Pitch: 0.1-0.9mm）、柔性曲面Mini LED显示技术的开发、Micro LED转移及相关技术的开发，力争形成一批具有自主知识产权的技术成果，推动新技术的普及、应用及标准制定，打造国际LED显示封装前沿关键技术的创新基地，引领全球显示封装行业不断实现新高度！

BRIEF INTRODUCTION OF MICRO & MINI LED RESEARCH CENTER

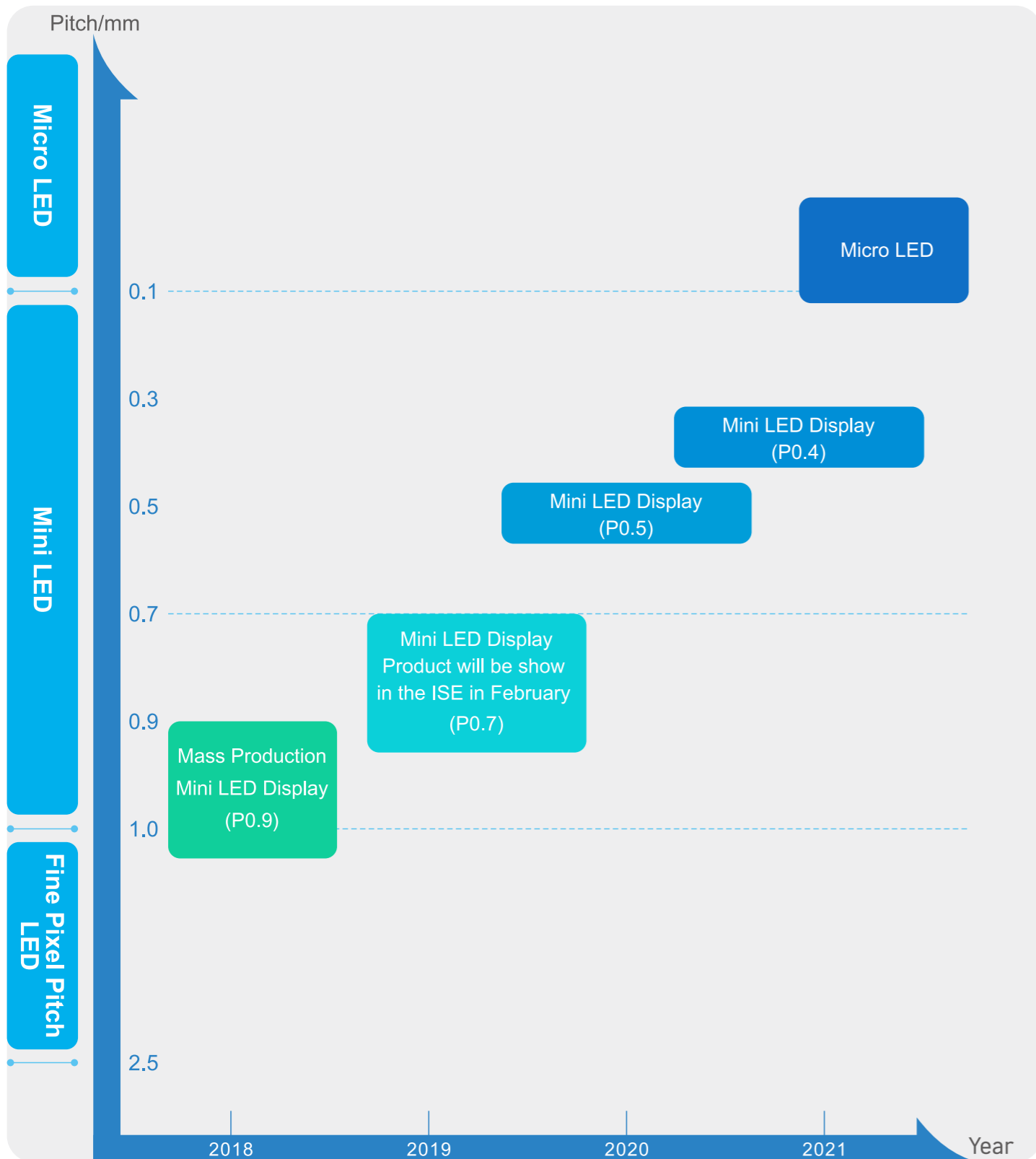
With the rapid trend of exploring higher LED display technology, Micro LED and Mini LED has become the major hot directions for high-end display. As a RGB packaged LED industrial leader, NATIONSTAR set up the Micro & Mini LED Research Center on March 2nd, 2018. Following up, on June 8th the first Mini LED item was released in Guangzhou China and Infocomm Audiovisual Exhibition in USA at the same time, which is an important event to announce that the LED display starts the pitch below 1mm (P0.X era).

The Micro & Mini LED Research Center focuses on the development of Mini LED for display pitch ranges 0.1-0.9mm, packaged Mini LED for soft and curved screen, Micro LED chip massive transfer technology, and etc. This Research Center set these targets: applying the many Micro & Mini LED intellectual property rights, pushing the application of new technologies and standards, creating an innovation base for the key technologies, and leading the global display LED industry to new heights!



Mini LED显示 Road map

MINI LED ROADMAP - FOR DISPLAY APPLICATION



首款IMD产品2018年6月发布并已实现量产
The first IMD product was released and mass production was launched in June 2018

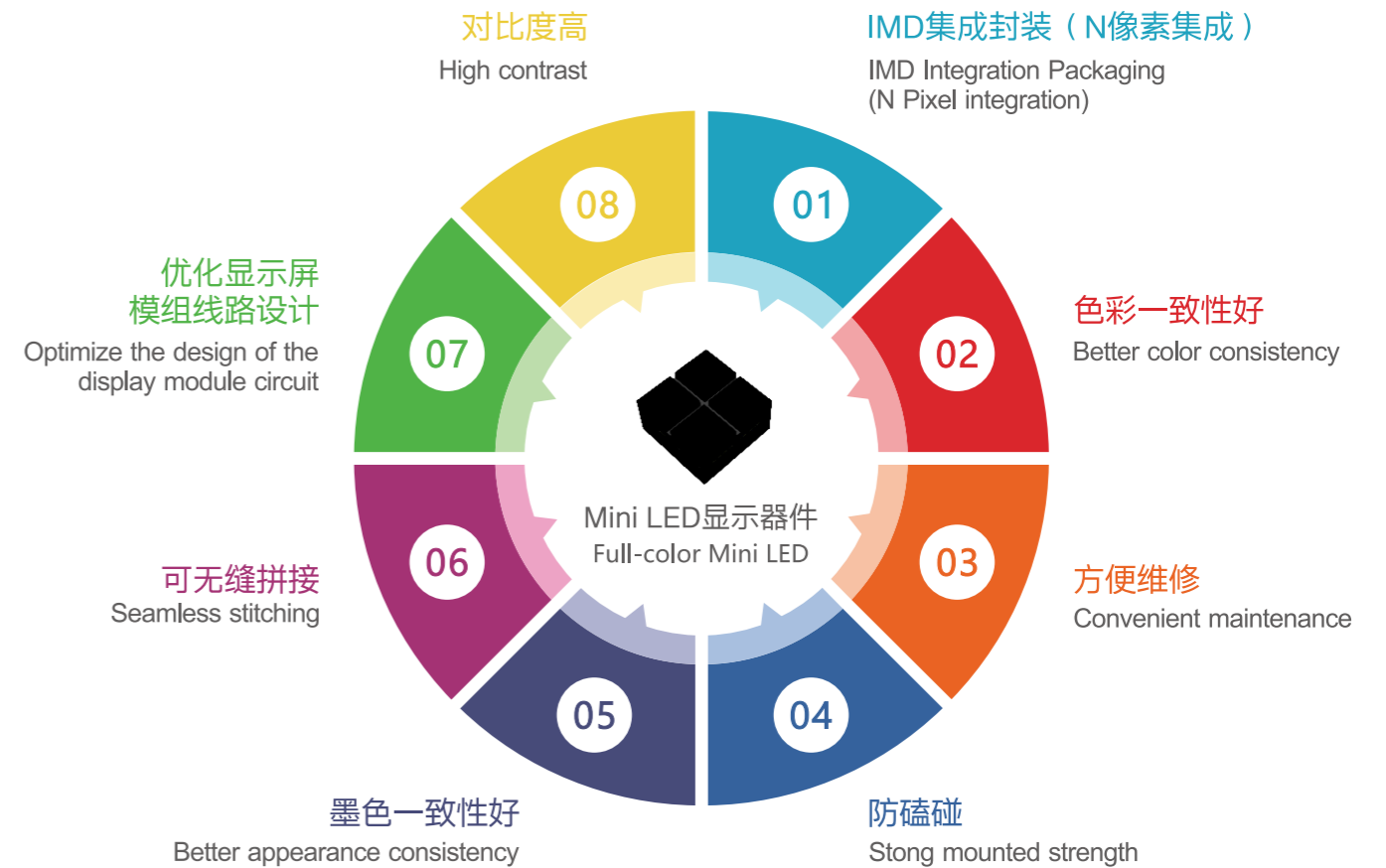
Mini LED优势介绍

INTRODUCTION OF MINI LED FOR DISPLAY APPLICATION

Mini LED显示器件基于IMD (Integrated Matrix Device)集成封装技术通过内部电路连接将相互关联的多个元器件集成封装在一个封装体中，在P1.0以下的Mini LED显示方面具有极大的应用前景。Mini LED显示产品优点如下：

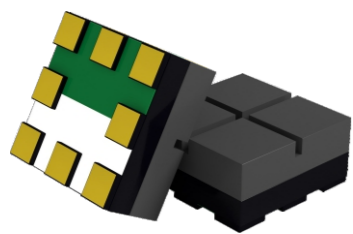
Mini LED Display is an component based on the IMD type device (Integrated mounted device) with the packaging technology. It can integrate multiple components into one package by internal circuit connection. This technology meets various great application prospects in ultra-high density display.

Advantage of Mini LED Display Product:

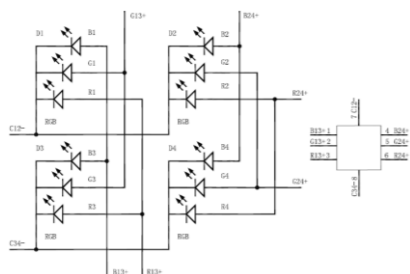


Mini LED显示产品

MINI LED FOR DISPLAY APPLICATION



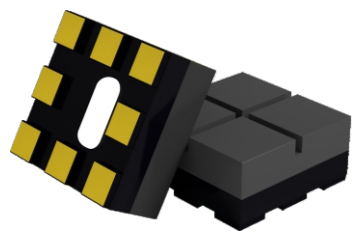
IMD-M09 标准版产品图
IMD-M09 Standard Product Image



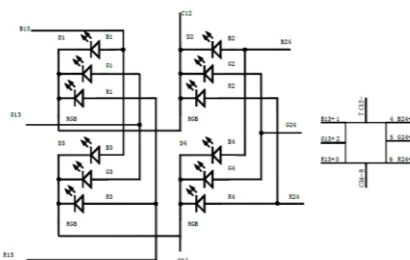
集成电路图
Integrated Circuit Diagram



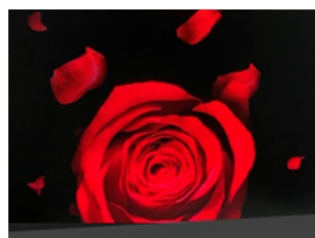
产品应用
LED Application



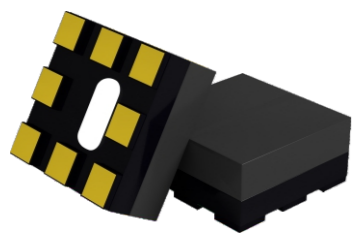
IMD-M09 旗舰版产品图
IMD-M09 Flagship Product Image



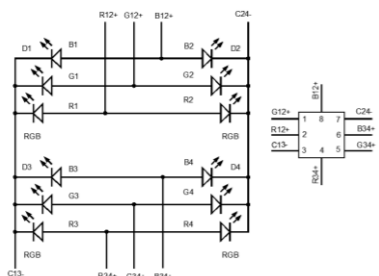
集成电路图
Integrated Circuit Diagram



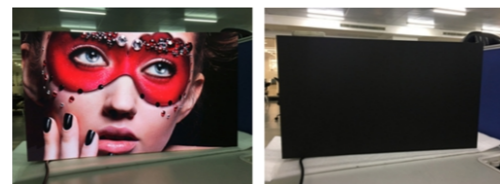
产品应用
LED Application



IMD-M07产品图
IMD-M07 Product Image



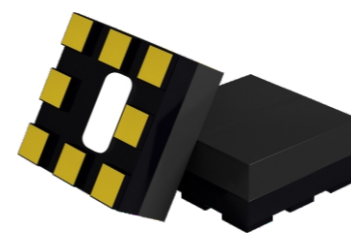
集成电路图
Integrated Circuit Diagram



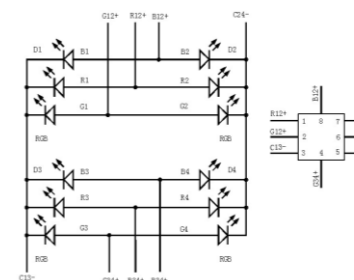
产品应用
LED Application

Mini LED显示产品

MINI LED FOR DISPLAY APPLICATION



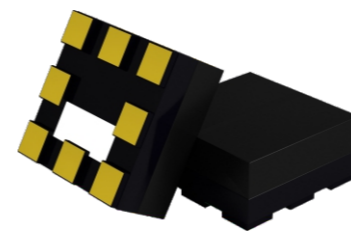
IMD-M06产品图
IMD-M06 Product Image



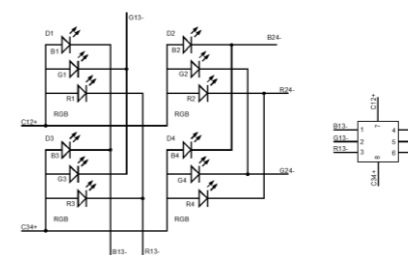
集成电路图
Integrated Circuit Diagram



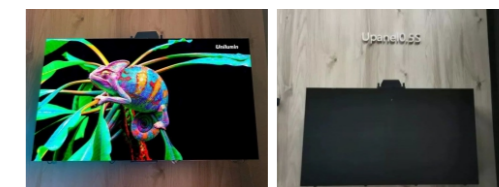
产品应用
LED Application



IMD-M05A产品图
IMD-M05A Product Image



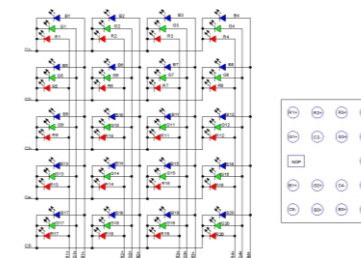
集成电路图
Integrated Circuit Diagram



产品应用
LED Application



IMD-M04产品图
IMD-M04 Product Image



集成电路图
Integrated Circuit Diagram

产品	对比度	亮度cd/m ²	点间距	2K	4K	8K
M09标准版	10000:1	600	0.9	81吋	162吋	324吋
M09旗舰版	20000:1	1000	0.9	81吋	162吋	324吋
M07	12000:1	1200	0.7	65吋	136吋	272吋
M06	15000:1	1500	0.6	54吋	108吋	216吋
M05A	20000:1	2000	0.5	51吋	103吋	206吋
M04	10000:1	1000	0.4	40吋	81吋	162吋

Mini LED显示应用案例

APPLICATIONS OF MINI LED DISPLAY



IMD-M07 会议一体机

Mini LED显示应用案例

APPLICATIONS OF MINI LED DISPLAY



IMD-M09T 南京公安局专业会议室屏



安徽省气象局智慧大屏 (艾比森CR0.9)

IMD-M09T 安徽省气象局 (艾比森CR0.9)



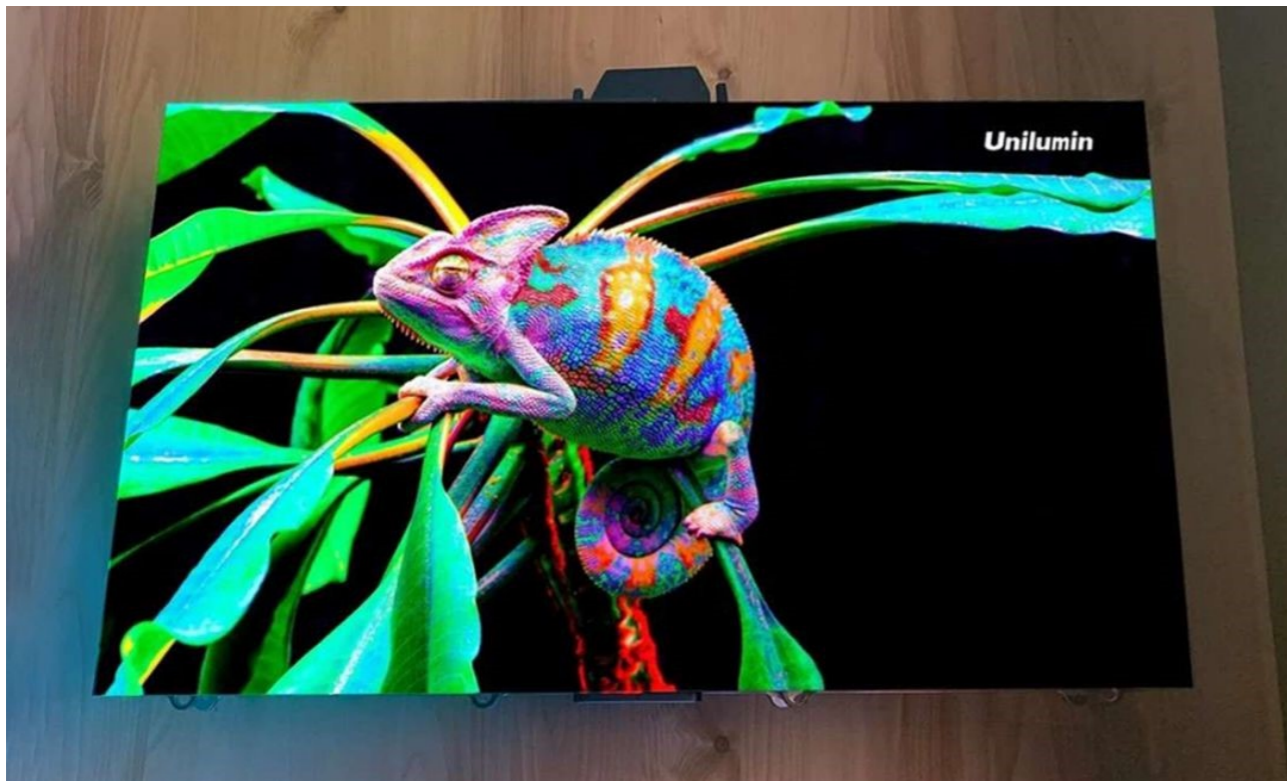
IMD-M07 IFA展 (TCL的132"电影墙)

Mini LED显示应用案例

APPLICATIONS OF MINI LED DISPLAY



媲美液晶的IMD-M07亮相上海UDE展



IMD-M05在ISLE展正式发布