LED Pixel Letters

Section 1:	**LED Pixel Letters / Dot Matrix LED Letters / LED Point Light Letters** LED Pixel Letters are custom illuminated sign letters built with a **formed metal shell, perforated face panel, and waterproof LED point light modules**. The face panel is perforated according to the **letter shape and stroke layout**, allowing LED modules to create a bright dot-matrix lighting effect. Most projects use **single-color illumination**, while **RGB color, chasing, gradient, or programmable dynamic lighting effects** can be customized for stronger night-time impact. **Applications:** ● Shopping malls & commercial complexes ● High-rise facade brand signs ● Retail streets & flagship stores ● Entertainment venues, cinemas & nightlife districts ● Stadiums, public facilities & transport hubs

Section 3: Key Advantages

Icon: **High-Mounted Facade Visibility** Dense LED point light modules create strong visibility for high-mounted building signs, large logos, and long-distance night exposure.	Icon: **Rigid Metal Face & Safer Structure** Perforated metal face panels keep thin strokes, logos, and custom fonts stable without deformation, improving safety for large outdoor signage.	Icon: **Day-to-Night Advertising Impact** The metal face shows brand color in daytime, while single-color, RGB, chasing, gradient, or programmable LED effects enhance night-time attraction.

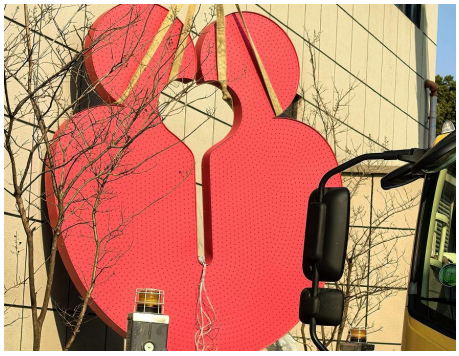
Project Challenges & DIKA SIGN ® Solutions

Product Challenge 01

Weak visibility for high-mounted facade signs

Large facade signs, rooftop logos, and commercial building letters must stay visible from long distance, especially at night.

✘ Standard illuminated signs may look weak on large building elevations.
✘ Poor LED spacing can create dark spots, hot spots, or broken dot patterns.
✘ Uncontrolled brightness may cause glare, color inconsistency, or uneven visual impact.



DIKA SIGN ® Solution

✓ LED point spacing planned by letter size, stroke width, viewing distance, and target brightness.
✓ LED density, power zoning, and wiring paths coordinated before production.
✓ Single-color illumination, RGB, chasing, gradient, or programmable effects customized by project needs.

Solution Value

✓ Stronger long-distance visibility for building facades and rooftop signs.
✓ Clearer and more even dot-matrix lighting effect at night.
✓ Better advertising exposure for malls, retail entrances, and landmark buildings.

Product Challenge 02

Face panel deformation and high-altitude safety risk

For large logos, wide-stroke letters, or custom fonts, the face structure must stay flat, stable, and safe in outdoor environments.

✘ Acrylic face panels may deform, crack, or age under sun exposure.
✘ Large letter strokes can lose flatness if the panel structure is not rigid enough.
✘ High-mounted signs face wind load, vibration, and installation safety risks.



DIKA SIGN ® Solution

✓ Formed metal letter shell with perforated aluminum face panel.
✓ Perforation layout made according to letter shape, stroke width, and LED module position.
✓ Internal reinforcement, fixing points, brackets, and back frames coordinated with site drawings.
✓ Lightweight aluminum structure used to reduce wall load and installation risk.

Solution Value

✓ More stable face appearance without deformation.
✓ Safer structure for high-mounted outdoor signage.
✓ Better suited for large logos, wide strokes, and custom brand fonts.
✓ Lower installation load compared with heavier metal structures.

Product Challenge 03

Waterproofing, wiring, and long-term LED maintenance risk

LED pixel letters contain many LED point modules, so waterproofing, power zoning, wiring, and maintenance access directly affect service life.

✘ Multiple LED nodes increase potential failure points.
✘ Rainwater, dust, condensation, and heat can damage LED modules and circuits.
✘ Poor wiring organization makes troubleshooting slow after installation.



DIKA SIGN ® Solution

✓ Waterproof LED point light modules and outdoor-rated wiring system.
✓ Sealing, drainage, ventilation, and service-access details built into the letter structure.
✓ Segmented circuits, labeled wiring, power zoning, and tested circuits before delivery.
✓ Modular LED layout designed for easier replacement and maintenance.

Solution Value

✓ Lower electrical failure risk in outdoor environments.
✓ Faster troubleshooting and LED replacement after installation.
✓ More stable long-term performance for commercial building signs.
✓ Reduced after-sales risk for sign companies and project contractors.

Product Types

Product Type	Key Feature	Best For
Single-Color LED Pixel Letters	Stable white, blue, red, warm white, or custom brand-color illumination.	Corporate building signs, shopping malls, commercial complexes, rooftop signs, and large facade logos.
RGB LED Pixel Letters	Color-changing LED point modules for stronger night-time visual attraction.	Entertainment venues, retail streets, commercial landmarks, night economy districts, and promotional facade signage.
Programmable LED Pixel Letters	Supports chasing, gradient, segmented lighting, and programmable dynamic effects.	Media-style facades, event spaces, brand campaigns, large commercial displays, and landmark signage projects.
Custom Logo & Facade Pixel	Perforated metal face panels follow custom logo shapes, wide	Large brand logos, high-mounted facade signs, custom fonts, and outdoor building

Product Type	Key Feature	Best For
Letters	strokes, and special brand fonts.	identity signage.

Section 6: Why Choose DIKA SIGN ®?

图标+ **Made Light · Built to Last** Lightweight aluminum structures and durable finishes help reduce installation load, site risk, and long-term maintenance costs. **Aluminum or Stainless Steel?**	图标+ **Project-Ready Manufacturing** From shop drawings to packing, every production detail is coordinated for smoother fabrication, installation, and delivery. **See How We Deliver Projects**	图标+ **30 Years of Signage Expertise** 30 years of project experience helps control engineering details, fabrication quality, schedule risks, and final delivery. **About DIKA SIGN ®**	图标+ **OEM / ODM Partner Only** We support sign companies and design firms as an OEM/ODM factory partner, without competing for end clients. **Partner With DIKA SIGN ®**

Section 7: FAQ

Q1: What are LED Pixel Letters?

A: LED Pixel Letters are custom illuminated sign letters made with a **formed metal shell, perforated face panel, and waterproof LED point light modules**. The LED modules are arranged by letter shape and stroke layout to create a bright dot-matrix lighting effect.

Q2: Are LED Pixel Letters the same as LED display letters?

A: No. They are not LED display screens. LED Pixel Letters are metal sign letters with waterproof LED point lights installed through the perforated face panel. They are mainly used for illuminated logos, building signs, and facade advertising.

Q3: Are LED Pixel Letters suitable for outdoor building signs?

A: Yes. With aluminum or metal construction, sealed LED modules, drainage, ventilation, power zoning, and proper mounting details, they are suitable for malls, rooftops, retail facades, and exterior commercial signage.

Q4: Can LED Pixel Letters be single-color, RGB, or programmable?

A: Yes. Most projects use single-color illumination, such as white, blue, red, or brand colors. RGB color, chasing, gradient, and programmable dynamic lighting effects can also be customized when required.

Q5: How do you control brightness and avoid uneven lighting?

A: DIKA SIGN plans LED spacing, module density, power distribution, viewing distance, and target brightness during engineering, then tests the lighting effect before delivery.

Q6: How are large LED Pixel Letters installed and maintained?

A: Large letters can be made in split sections with mounting templates, back frames, labeled wiring, access panels, and modular LED circuits for easier installation, troubleshooting, and maintenance.

LED 点阵字

第 1 节：	**LED 点阵字 / 点阵 LED 字 / LED 点光源字** LED 点阵字是由成型金属字壳、穿孔面板和防水 LED 点光源模块组成的定制发光标识字。 面板按字形和笔画结构进行穿孔，使 LED 模块形成明亮的点阵发光效果。 多数项目采用单色发光，也可定制 RGB 色彩、追逐、渐变或可编程动态照明效果，以增强夜间视觉冲击力。 **应用场景：** ● 购物中心与商业综合体 ● 高层建筑立面品牌标识 ● 零售街区与旗舰店 ● 娱乐场所、电影院与夜生活街区 ● 体育场、公共设施与交通枢纽

第 3 节：关键优势

图标： **高空立面可视性** 密集排布的 LED 点光源模块，为高空建筑标识、大型 LOGO 和远距离夜间观看提供更强可视性。	图标： **稳定金属面板与更安全结构** 穿孔金属面板可保持细笔画、LOGO 和定制字体稳定不变形，提升大型户外标识的安全性。	图标： **白天到夜晚的广告效果** 金属面板白天呈现品牌色；夜晚通过单色、RGB、追逐、渐变或可编程 LED 效果增强吸引力。

项目挑战与 DIKA SIGN ® 解决方案

产品挑战 01

高空立面标识可视性弱

大型立面标识、楼顶 LOGO 和商业建筑发光字必须在远距离保持清晰可见，尤其是在夜间。

✘ 普通发光标识在大型建筑立面上容易显得亮度不足。
✘ LED 点距不合理会产生暗点、亮点或断点式发光效果。
✘ 亮度控制不当会导致眩光、色差或夜间视觉不均。



DIKA SIGN ® 解决方案

✓ 根据字尺寸、笔画宽度、观看距离和目标亮度规划 LED 点距。
✓ 在生产前协调 LED 密度、电源分区和布线路径。
✓ 根据项目需求定制单色、RGB、追逐、渐变或可编程效果。

方案价值

✓ 增强建筑立面和楼顶标识的远距离可视性。
✓ 夜间点阵发光效果更清晰、更均匀。
✓ 为商场、零售入口和地标建筑带来更好的广告曝光。

产品挑战 02

面板变形与高空安全风险

对于大型 LOGO、宽笔画字母或定制字体，面板结构必须在户外环境中保持平整、稳定和安全。

✘ 亚克力面板在日晒下可能变形、开裂或老化。
✘ 如果面板结构刚性不足，大笔画字形容易失去平整度。
✘ 高空标识需要面对风荷载、振动和安装安全风险。



DIKA SIGN ® 解决方案

✓ 成型金属字壳搭配穿孔铝面板。
✓ 按字形、笔画宽度和 LED 模块位置进行穿孔排版。
✓ 内部加强、固定点、支架和背架与现场图纸协同设计。
✓ 采用轻量化铝结构，降低墙体荷载和安装风险。

方案价值

✓ 面板外观更稳定，不易变形。
✓ 更适合高空户外标识的安全结构需求。
✓ 适用于大型 LOGO、宽笔画和定制品牌字体。
✓ 相比更重的金属结构，可降低安装荷载。

产品挑战 03

防水、布线与长期 LED 维护风险

LED 点阵字包含大量 LED 点光源模块，因此防水、电源分区、布线和检修设计会直接影响使用寿命。

✘ 多个 LED 节点会增加潜在故障点。
✘ 雨水、灰尘、冷凝水和热量可能损坏 LED 模块和电路。
✘ 布线混乱会导致安装后排查和维修效率低。



DIKA SIGN ® 解决方案

✓ 采用防水 LED 点光源模块和户外级布线系统。
✓ 在字壳结构中集成密封、排水、通风和检修细节。
✓ 分段电路、标识化布线、电源分区，并在出货前完成电路测试。
✓ 模块化 LED 排布，便于后期更换和维护。

方案价值

✓ 降低户外环境中的电气故障风险。
✓ 安装后排查和 LED 更换更快捷。
✓ 提升商业建筑标识的长期稳定性。
✓ 降低标识公司和项目承包商的售后风险。

产品类型

产品类型	核心特点	适合场景
单色 LED 点阵字	白色、蓝色、红色、暖白色或定制品牌色，发光稳定。	企业建筑标识、购物中心、商业综合体、楼顶标识和大型立面 LOGO。
RGB LED 点阵字	变色 LED 点光源模块，增强夜间视觉吸引力。	娱乐场所、零售街区、商业地标、夜经济街区和促销型立面标识。
可编程 LED 点阵字	支持追逐、渐变、分段照明和可编程动态效果。	媒体化立面、活动空间、品牌推广、大型商业展示和地标标识项目。
定制 LOGO 与立面点阵字	穿孔金属面板可匹配定制 LOGO 形状、宽笔画和特殊品牌字体。	大型品牌 LOGO、高空立面标识、定制字体和户外建筑形象标识。

第 6 节：为什么选择 DIKA SIGN ®?

图标+ **更轻 · 更耐久** 轻量化铝结构与耐久表面处理，有助于降低安装荷载、现场风险和长期维护成本。 **铝材还是不锈钢？**	图标+ **项目就绪型制造** 从深化图纸到包装，每个生产细节都经过协调，确保制造、安装和交付更顺畅。 **查看我们的项目交付方式**	图标+ **30 年标识项目经验** **30 年项目经验帮助控制工程细节、制造质量、进度风险和最终交付。** **关于 DIKA SIGN ®**	图标+ **只做 OEM/ODM 合作伙伴** 我们作为 OEM/ODM 工厂伙伴，支持标识公司与设计公司，不与客户争夺终端项目。 **与 DIKA SIGN ® 合作**

第 7 节：常见问题

Q1：什么是 LED 点阵字？

A：LED 点阵字是由成型金属字壳、穿孔面板和防水 LED 点光源模块组成的定制发光标识字。LED 模块按字形和笔画结构排布，形成明亮清晰的点阵发光效果。

Q2：LED 点阵字和 LED 显示屏字一样吗？

A：不一样。它不是 LED 显示屏，而是在金属标识字的穿孔面板上安装防水 LED 点光源，主要用于发光 LOGO、建筑标识和立面广告。

Q3：LED 点阵字适合户外建筑标识吗？

A：适合。通过铝制或金属结构、密封 LED 模块、排水通风、电源分区和合理安装节点，可用于商场、楼顶、零售立面和户外商业标识。

Q4：LED 点阵字可以做单色、RGB 或可编程效果吗？

A：可以。多数项目采用白色、蓝色、红色或品牌色等单色发光；也可根据需求定制 RGB 色彩、追逐、渐变和可编程动态照明效果。

Q5：如何控制亮度并避免发光不均？

A：DIKA SIGN 在工程深化阶段规划 LED 点距、模块密度、电源分配、观看距离和目标亮度，并在出货前测试发光效果。

Q6：大型 LED 点阵字如何安装和维护？

A：大型字可分段制作，并配置安装模板、背架、标识化布线、检修口和模块化 LED 线路，便于安装、排查和后期维护。