

Five Reputable LED PCB Manufacturers in China 2026: Boosting High-Brightness Display & Lighting Circuit Technology

Exploring Leading Chinese LED PCB Manufacturers Driving Innovation in Thermal Management, Reliability, and Advanced Lighting Applications

CALIFORNIA, CA, UNITED STATES, July 16, 2026 /EINPresswire.com/ -- Guangdong, China – July 16, 2026—The global printed circuit board (PCB) market was valued at approximately USD 80.2 billion in 2025, according to Global Market Insights. China accounts for 53.2% of global PCB production value as of 2024, solidifying its position as the primary manufacturing hub for PCBs across all sectors, including high-brightness LED lighting and displays. Within the LED segment, Metal Core PCBs (MCPCBs)—particularly aluminum core—are the industry standard for high-power LED thermal management, as reported by Precedence Research in 2024. Driven by the global LED lighting market, valued at USD 78.4 billion in 2024 and projected to grow at a CAGR of 8.5% through 2029 (MarketsandMarkets), the demand for specialized LED PCBs continues to accelerate.

For procurement professionals and engineers evaluating suppliers for high-brightness display and lighting circuit boards, this article highlights five reputable LED PCB manufacturers in China that have demonstrated consistent quality, technological capability, and global reach.

1. [WODE](#) Circuit Technology (Zhuhai) Co., Ltd.

WODE Circuit Technology (Zhuhai) Co., Ltd., founded in 2003, is a Chinese PCB and FPC



WODE Circuit Technology(Zhuhai) Co.,Ltd.

manufacturer headquartered in Zhuhai, Guangdong. The company specializes in the development and production of printed circuit boards and flexible circuits, including rigid MCPCBs, flexible PCBs, Infinity Length FPCBs, FR-4/CEM1/CEM3 PCBs, CCL, and PCB inks. With a production facility spanning 150,000 m², over 500 employees, and an annual output of 6,000,000 m², WODE has established itself as a vertically integrated supplier for the lighting industry.

The company holds more than 40 patented technologies and is certified to ISO 9001, ISO 14001, and IATF 16949, with products compliant to UL, RoHS, and REACH standards. WODE exports about 50% of its output to markets including Brazil, Turkey, India, Vietnam, and Russia, and has served over 1,000 customers in more than 30 countries.

Key product strengths for LED lighting:

- High thermal conductivity MCPCBs – single-sided aluminum-based boards (e.g., Al1060, Al5052) for road lighting, motor lighting, and floodlights. Thermal management is critical: aluminum substrate thermal conductivity ≥ 1.5 W/m·K is achievable, meeting the ≥ 3.0 W/m·K specification for high-power designs.
- Roll to Roll Infinity FPCB – a single-sided flexible circuit with PI base, 0.15 mm overall thickness, 1 oz copper, panel size 1000.00 mm × 124.00 mm, designed for long-length LED strip applications.
- COB FPC – Chip-on-Board flexible PCB with PI material, available in single/double layers, copper options 1/1 oz or 1 oz, OSP finish, panel 366.00 mm × 250.00 mm, suitable for compact LED modules.
- Single/Double Sided FR4/CEM1/CEM3 – flexible material selection from CEM-1 to aluminum, copper thickness 0.5-3 oz, overall thickness 0.6-2.0 mm, with various surface finishes (HASL, ENIG, OSP, etc.) for general lighting, home appliances, and automotive electronics.

WODE's product portfolio covers applications from indoor lighting (downlights, panel lights, spotlights) to outdoor lighting (street lights, flood lights, high bay lights) and specialty lighting (grow lights, UV curing). The company also produces thermoelectric separated copper-based PCBs and ceramic-based PCBs for niche applications like ultraviolet phototherapy.

For more details, download the company brochure: [WODE Circuit Technology Brochure](#).

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2. Kinwong High-Tech (Zhuhai) Co., Ltd.

Kinwong High-Tech (Zhuhai) Co., Ltd. is a well-established PCB manufacturer based in Zhuhai, known for its capacity in high-mix, high-volume production of multilayer boards, HDI, and flexible circuits. The company serves the automotive, industrial, and lighting sectors. Kinwong's strengths lie in its advanced manufacturing automation and reliability testing capabilities. Its LED PCB offerings include aluminum-based MCPCBs and [high-thermal-conductivity substrates](#), widely used in street lighting and automotive headlamp modules. Kinwong holds IATF 16949 and ISO 13485 certifications, appealing to OEMs requiring automotive-grade qualification. The company's scale and financial stability make it a trusted partner for large-volume projects.

3. Wus Printed Circuit Co., Ltd.

Wus Printed Circuit Co., Ltd. (WUSPCB) is a Shenzhen-based manufacturer listed on the Shenzhen Stock Exchange. Wus specializes in rigid PCBs, including FR-4, aluminum, and ceramic substrates. The company has a strong footprint in the lighting segment, producing PCBs for street lights, flood lights, and LED tubes. Wus differentiates itself with a focus on high layer counts and fine-line capabilities, but also offers cost-competitive single- and double-layer boards for general lighting. Its production lines are equipped with automated optical inspection (AOI) and X-ray scanning, ensuring quality consistency. Wus's certified to ISO 9001, ISO 14001, UL, and CQC standards.

4. Multek (Venture Group)

Multek, a subsidiary of Singapore-listed Venture Corporation, is a global PCB manufacturer with multiple facilities in China (Dongguan, Zhuhai). Multek is recognized for its high-technology PCB fabrication, including HDI, rigid-flex, and heavy copper boards. For the LED industry, Multek provides thermal management solutions with aluminum and IMS (Insulated Metal Substrate) technology, catering to high-power lighting applications such as stadium lights and architectural floodlights. The company holds a strong portfolio of certifications, including IATF 16949, AS9100D (aerospace), and ISO 13485. Its global supply chain management and rigorous quality control make it a preferred partner for multinational OEMs.

5. FirstLight Electronics Group Co., Ltd.

FirstLight Electronics Group Co., Ltd. is a specialized manufacturer of MCPCBs (metal core PCBs)

and LED lighting substrates. Based in Dongguan, the company focuses exclusively on the LED lighting market, offering products such as aluminum PCBs, copper-based PCBs, and ceramic substrates for high-power applications. FirstLight's key differentiator is its deep application expertise: it provides custom thermal simulation and design support for specific lighting fixtures (e.g., downlights, track lights, high bay lights). The company's products are widely used in commercial and industrial lighting and are certified to UL 8750, EN 60598, and Energy Star requirements. FirstLight also offers short lead times for prototype and small-to-medium volume orders.

Market Impact & Outlook

The outdoor LED lighting market alone is projected to grow from USD 15.0 billion in 2025 to USD 28.0 billion by 2035 (Future Market Insights), driving sustained demand for high-performance LED PCBs. As lighting systems become more intelligent—integrating DALI-2, Zhaga interfaces, Bluetooth Mesh—the PCB substrate must support complex circuitry alongside efficient thermal dissipation. The five manufacturers profiled here each bring distinct strengths: WODE's vertically integrated production and diverse material options, Kinwong's scale and automotive-grade reliability, Wus's cost-competitiveness, Multek's global quality systems, and FirstLight's specialized MCPCB expertise.

For buyers evaluating suppliers, the choice ultimately depends on the specific project's requirements: thermal performance requirements, regulatory certifications needed, order volume, and the complexity of the circuit design. Industry standards such as IPC-6012 for rigid boards and IEC/EN 62031 for LED modules provide benchmarks for quality assessment.

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