

Global Power Electronics Patent Intelligence Market 2026 – Strategic Analysis of Leading Companies, Technology Trends, Manufacturing, Innovation, and Competitive Landscape

<https://marketpublishers.com/r/P56085CD4E3AEN.html>

Date: September 2026

Pages: 200

Price: US\$ 4,150.00 (Single User License)

ID: P56085CD4E3AEN

Abstracts

The Global Power Electronics Patent Intelligence report provides an in-depth analysis of the intellectual property landscape within the global power electronics industry by evaluating patent filing activities, technology innovation trends, patent ownership, research activities, and emerging innovation domains. The report enables organizations to monitor technology leadership, assess competitive intellectual property positions, identify licensing opportunities, and support strategic decisions related to research, product development, and technology commercialization.

The study examines global patent portfolios across power semiconductor devices (MOSFETs, IGBTs, diodes), wide-bandgap technologies (SiC and GaN power devices), power modules and packaging, gate drive and control circuits, DC-DC converters and power conversion topologies, thermal management and multi-physics simulation technologies, solid-state transformer architectures, and next-generation power electronics platforms . It also analyzes patent filing trends, leading patent holders, technology domains, geographic distribution, citation analysis, and emerging innovators to provide actionable intelligence on the evolving power electronics innovation ecosystem.

The report further highlights patent commercialization opportunities, licensing activities, research collaborations, and future technology directions to help organizations strengthen innovation strategies and intellectual property portfolios.

Key Coverage

Power electronics patent landscape

Patent filing trends

Technology domain analysis

Leading patent holders

Patent portfolio benchmarking

Geographic patent distribution

Citation analysis

Licensing landscape

White-space opportunities

Future patent outlook

Target Audience

Chief Intellectual Property Officers (CIPOs)

Intellectual Property & Patent Teams

Research & Development (R&D) Teams

Power Electronics Technology Developers

Innovation Management Teams

Technology Scouting Teams

Product Development Teams

Semiconductor Manufacturers

Automotive OEMs

Renewable Energy Companies

Universities & Research Institutions

Government & Research Organizations

Technology Transfer Offices

Investment & Venture Capital Firms

Legal & Licensing Professionals

What This Report Offers

Comprehensive power electronics patent landscape assessment

Patent filing and publication trend analysis

Patent portfolio benchmarking

Leading patent holder and assignee analysis

Power electronics technology domain analysis

Geographic patent distribution assessment

Patent citation and quality analysis

Inventor and innovation activity assessment

Licensing and patent commercialization insights

Freedom-to-operate intelligence

Emerging innovation and white-space opportunity identification

Future intellectual property and technology outlook

Key Companies Covered (Illustrative)

Renesas Electronics Corporation

Wolfspeed Inc.

Infineon Technologies AG

STMicroelectronics N.V.

Toshiba Corporation

Fuji Electric Co., Ltd.

Mitsubishi Electric Corporation

Sumitomo Electric Industries, Ltd.

ROHM Co., Ltd.

Hitachi, Ltd.

Denso Corporation

Global Power Technology Co., Ltd.

BYD Company Limited

NXP Semiconductors N.V.

and other leading patent holders and industry participants.

Contents

1 EXECUTIVE SUMMARY

2 RESEARCH METHODOLOGY

- 2.1 Research Methodology
- 2.2 Patent Search Methodology
- 2.3 Data Sources
- 2.4 Scope of the Study
- 2.5 Assumptions & Limitations

3 PATENT LANDSCAPE OVERVIEW

- 3.1 Power Electronics Industry Overview
- 3.2 Power Electronics Technology Landscape
- 3.3 Patent Ecosystem
- 3.4 Patent Classification
- 3.5 Innovation Drivers
- 3.6 Regulatory Framework
- 3.7 IP Trends

4 GLOBAL PATENT LANDSCAPE

- 4.1 Patent Filing Trends
- 4.2 Patent Publications
- 4.3 Granted Patents
- 4.4 Patent Families
- 4.5 Geographic Distribution
- 4.6 Technology Domains

5 PATENT PORTFOLIO BENCHMARKING

- 5.1 Leading Patent Holders
- 5.2 Company Patent Comparison
- 5.3 University Patent Activity
- 5.4 Research Institute Patent Activity
- 5.5 Startup Patent Activity
- 5.6 Patent Quality Assessment

6 TECHNOLOGY DOMAIN ANALYSIS

- 6.1 Power Semiconductor Devices (MOSFETs, IGBTs, Diodes)
- 6.2 Silicon Carbide (SiC) Power Devices and Modules
- 6.3 Gallium Nitride (GaN) Power Devices
- 6.4 Power Modules and Advanced Packaging
- 6.5 Gate Drive, Control Circuits, and Converters
- 6.6 Thermal Management and Multi-Physics Simulation

7 PATENT INTELLIGENCE

- 7.1 Citation Analysis
- 7.2 Inventor Analysis
- 7.3 Assignee Analysis
- 7.4 Patent Expiry Analysis
- 7.5 Licensing Landscape
- 7.6 Freedom-to-Operate Overview

8 STRATEGIC DEVELOPMENTS

- 8.1 Licensing Agreements
- 8.2 Patent Acquisitions
- 8.3 Cross-Licensing Activities
- 8.4 Technology Partnerships
- 8.5 Government Programs
- 8.6 Future IP Strategies

9 REGIONAL PATENT ANALYSIS

- 9.1 North America
- 9.2 Europe
- 9.3 China
- 9.4 Japan
- 9.5 South Korea
- 9.6 India
- 9.7 Southeast Asia
- 9.8 Other Regions

10 EMERGING INNOVATORS

- 10.1 High-Growth Companies
- 10.2 University Spin-offs
- 10.3 Startups by Region
- 10.4 Venture Capital Activity
- 10.5 Unicorn Tracking
- 10.6 Disruptive Technologies

11 FUTURE TECHNOLOGY OUTLOOK

- 11.1 White Space Analysis
- 11.2 Threat Analysis
- 11.3 Opportunity Mapping
- 11.4 Future Leaders
- 11.5 Strategic Recommendations

12 COMPANY PROFILES

- 12.1 Renesas Electronics Corporation
- 12.2 Wolfspeed Inc.
- 12.3 Infineon Technologies AG
- 12.4 STMicroelectronics N.V.
- 12.5 Toshiba Corporation
- 12.6 Fuji Electric Co., Ltd.
- 12.7 Mitsubishi Electric Corporation
- 12.8 Sumitomo Electric Industries, Ltd.
- 12.9 ROHM Co., Ltd.
- 12.10 Hitachi, Ltd.
- 12.11 Denso Corporation
- 12.12 Global Power Technology Co., Ltd.
- 12.13 BYD Company Limited
- 12.14 NXP Semiconductors N.V.
- 12.15 Texas Instruments Incorporated
- 12.16 ON Semiconductor
- 12.17 Navitas Semiconductor
- 12.18 Efficient Power Conversion Corporation (EPC)
- 12.19 Qorvo
- 12.20 MACOM Technology Solutions

- 12.21 Panasonic Holdings Corporation
- 12.22 No. 55 Research Institute, China Electronics Technology Group Corp
- 12.23 University of Electronic Science and Technology of China (UESTC)
- 12.24 Xidian University
- 12.25 TankeBlue

13 LIST OF TABLES

- Table 1 Power Electronics Patent Landscape Overview
- Table 2 Patent Filing and Publication Trends
- Table 3 Leading Patent Holders
- Table 4 Patent Portfolio Comparison
- Table 5 Patent Distribution by Technology Domain
- Table 6 Geographic Patent Distribution
- Table 7 Patent Citation and Quality Comparison
- Table 8 Emerging Power Electronics Patent Innovators

14 LIST OF FIGURES

- Fig 1 Power Electronics Patent Ecosystem
- Fig 2 Global Patent Filing Landscape
- Fig 3 Patent Filing Trend
- Fig 4 Patent Technology Domain Distribution
- Fig 5 Leading Patent Holders
- Fig 6 Geographic Patent Distribution
- Fig 7 Patent Citation and Innovation Network
- Fig 8 Emerging Power Electronics Technology Patent Landscape

I would like to order

Product name: Global Power Electronics Patent Intelligence Market 2026 – Strategic Analysis of Leading Companies, Technology Trends, Manufacturing, Innovation, and Competitive Landscape

Product link: <https://marketpublishers.com/r/P56085CD4E3AEN.html>

Price: US\$ 4,150.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/P56085CD4E3AEN.html>