+357 96 030922
info@marketpublishers.com

# Shunt Resistor Market – Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Type (Low-ohm Shunt Resistors, Medium-ohm Shunt Resistors, High-ohm Shunt Resistors, Precision Shunt Resistors), By Application (Automotive, Consumer Electronics, Telecommunications, Industrial Equipment, Medical Devices, Renewable Energy, Others), By Material (Metal Shunt Resistors, Alloy Shunt Resistors, Carbon Shunt Resistors, Silicon Shunt Resistors), By Region, By Competition, 2020-2030F

https://marketpublishers.com/r/S2423E926E12EN.html
Date: June 2025
Pages: 188
Price: US$ 4,500.00 (Single User License)
ID: S2423E926E12EN

## Abstracts

### Market Overview

The Global Shunt Resistor Market was valued at USD 2.1 billion in 2024 and is projected to reach USD 2.9 billion by 2030, growing at a CAGR of 5.5% during the forecast period. The market is experiencing robust growth due to the accelerating adoption of electric vehicles (EVs), where shunt resistors are vital in battery management systems for precise current measurement during charging and discharging. The increasing shift toward renewable energy sources such as solar and wind also contributes to market demand, with these resistors supporting accurate current monitoring to enhance system performance. Additionally, industrial automation and the ongoing miniaturization of electronic devices are driving the use of high-precision, space-efficient SMD shunt resistors. Technological advancements have improved their thermal stability and performance, expanding their use in EVs, smart

+357 96 030922
info@marketpublishers.com

electronics, and clean energy systems. As consumer electronics, IoT devices, and wearables continue to proliferate, the need for efficient power management will further reinforce the global demand for shunt resistors.

**Key Market Drivers**

Rapid Adoption of Electric Vehicles (EVs) and Battery Management Systems (BMS)

The global transition to electric mobility is significantly boosting demand for shunt resistors, especially in advanced battery management systems (BMS) integral to EVs. These components provide accurate current sensing critical to managing charging cycles, discharging, and overall battery efficiency. Driven by climate change mitigation efforts and stringent emission policies, countries worldwide are supporting EV development through subsidies, infrastructure expansion, and clean energy mandates. This shift increases the need for high-precision current measurement devices. Notably, in November 2024, the U.S. Department of Energy (DOE) committed USD 11 million to HVDC transmission network development, indirectly strengthening demand for shunt resistors in energy monitoring and grid stabilization applications.

**Key Market Challenges**

Intense Competition and Price Sensitivity Impacting Profit Margins

The global shunt resistor market faces substantial pricing pressure due to intense competition among numerous manufacturers, ranging from global electronics conglomerates to niche component suppliers. This competitive landscape often leads to commoditization in standard resistor segments, resulting in downward pricing trends that erode profit margins. Manufacturers must continuously improve production efficiency while maintaining high-performance standards to remain competitive. The price-sensitive nature of some sectors—such as consumer electronics and low-margin industrial applications—further complicates profitability. Even as specialized applications like EVs or renewable energy demand advanced and more costly resistor designs, many buyers continue to prioritize affordability, forcing suppliers to strike a delicate balance between innovation and cost-efficiency.

**Key Market Trends**

Increasing Adoption of Surface-Mount Device (SMD) Shunt Resistors and Miniaturization

+357 96 030922
info@marketpublishers.com

A major trend reshaping the shunt resistor market is the rising preference for SMD shunt resistors, driven by the need for compact and efficient components in modern electronic designs. As industries prioritize device miniaturization, traditional through-hole resistors are being replaced by surface-mount alternatives that offer smaller form factors and improved performance. SMD resistors are especially favored in automotive, consumer electronics, industrial automation, and telecom applications, where space-saving and high-frequency operation are critical. These resistors provide enhanced electrical properties, such as lower parasitic effects and better thermal performance. Advancements in SMT assembly and automated production lines are accelerating the adoption of SMD resistors, enabling manufacturers to meet high-volume demand with improved reliability and reduced manufacturing costs.

**Key Market Players**

Vishay Intertechnology, Inc.

Ohmite Manufacturing Company

Panasonic Corporation

Bourns, Inc.

TE Connectivity Ltd.

KOA Corporation

Susumu Co., Ltd.

Yageo Corporation

**Report Scope:**

In this report, the Global Shunt Resistor Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

Shunt Resistor Market, By Type:

+357 96 030922
info@marketpublishers.com

Low-ohm Shunt Resistors

Medium-ohm Shunt Resistors

High-ohm Shunt Resistors

Precision Shunt Resistors

Shunt Resistor Market, By Application:

Automotive

Consumer Electronics

Telecommunications

Industrial Equipment

Medical Devices

Renewable Energy

Others

Shunt Resistor Market, By Material:

Metal Shunt Resistors

Alloy Shunt Resistors

Carbon Shunt Resistors

Silicon Shunt Resistors

Shunt Resistor Market, By Region:

North America

United States

+357 96 030922
info@marketpublishers.com

- Canada
- Mexico

Europe

- Germany
- France
- United Kingdom
- Italy
- Spain

Asia Pacific

- China
- India
- Japan
- South Korea
- Australia

South America

- Brazil
- Colombia
- Argentina

Middle East & Africa

+357 96 030922
info@marketpublishers.com

Saudi Arabia

UAE

South Africa

**Competitive Landscape**

Company Profiles: Detailed analysis of the major companies present in the Global Shunt Resistor Market.

**Available Customizations:**

Global Shunt Resistor Market report with the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

**Company Information**

Detailed analysis and profiling of additional market players (up to five).

+357 96 030922
info@marketpublishers.com

# Contents

+357 96 030922
info@marketpublishers.com



## 6. NORTH AMERICA SHUNT RESISTOR MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

## 7. EUROPE SHUNT RESISTOR MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com



## 8. ASIA PACIFIC SHUNT RESISTOR MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com



## 9. MIDDLE EAST & AFRICA SHUNT RESISTOR MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com



## 10. SOUTH AMERICA SHUNT RESISTOR MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

## I would like to order

Product name: Shunt Resistor Market – Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Type (Low-ohm Shunt Resistors, Medium-ohm Shunt Resistors, High-ohm Shunt Resistors, Precision Shunt Resistors), By Application (Automotive, Consumer Electronics, Telecommunications, Industrial Equipment, Medical Devices, Renewable Energy, Others), By Material (Metal Shunt Resistors, Alloy Shunt Resistors, Carbon Shunt Resistors, Silicon Shunt Resistors), By Region, By Competition, 2020-2030F

Product link: https://marketpublishers.com/r/S2423E926E12EN.html

Price: US$ 4,500.00 (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/S2423E926E12EN.html