

# Global Metal Foil SMD Resistors Market 2023 by Manufacturers, Regions, Type and Application, Forecast to 2029

https://marketpublishers.com/r/G86DBA43B0FBEN.html

Date: October 2023

Pages: 119

Price: US\$ 3,480.00 (Single User License)

ID: G86DBA43B0FBEN

## **Abstracts**

According to our (Global Info Research) latest study, the global Metal Foil SMD Resistors market size was valued at USD 324.1 million in 2022 and is forecast to a readjusted size of USD 510.3 million by 2029 with a CAGR of 6.7% during review period.

Metal foil resistors are precision electronic components used in various electronic circuits to provide accurate and stable resistance values. They are known for their high precision, low temperature coefficient, and excellent long-term stability. Metal foil resistors are typically used in applications where precise resistance values are crucial, such as in instrumentation, precision measuring equipment, medical devices, and aerospace electronics.

#### Drivers:

Demand for Precision Electronics: The increasing demand for precision and accuracy in electronic devices and circuits, particularly in applications like medical equipment, aerospace, and telecommunications, drives the need for high-precision resistors like metal foil SMD resistors.

Growing Automation and Robotics: The growth of automation and robotics industries requires highly accurate sensors and control systems, which, in turn, boosts the demand for precise resistors.

Miniaturization Trends: As electronic devices continue to shrink in size, SMD components become essential. Metal foil SMD resistors are ideal for miniaturized



electronics due to their compact size and precision.

Telecommunications and Data Centers: The expansion of telecommunications networks and data centers necessitates precise resistors for signal conditioning and data processing equipment.

Emerging Markets: As emerging markets in Asia, Latin America, and Africa witness increased industrialization and technological adoption, the demand for electronic components like SMD resistors grows.

Rising Demand for Electric Vehicles (EVs): The EV market requires advanced electronics for battery management, power conversion, and charging systems, driving demand for high-precision resistors in this sector.

#### Restrictions:

Price Competition: The market for SMD resistors can be highly competitive, with pricing pressures due to the presence of multiple manufacturers. This can impact profit margins for companies.

Technological Challenges: Developing and manufacturing metal foil SMD resistors with extremely low tolerances and high precision can be technically challenging and costly.

Market Saturation: In mature markets, such as consumer electronics, the market for SMD resistors may become saturated, limiting growth opportunities.

Material Costs: Fluctuations in the costs of materials like metal alloys can affect production costs for metal foil resistors.

Integration of Functions: Some applications are moving toward integrated solutions, where resistors are embedded within semiconductor chips or other components, potentially reducing the demand for discrete SMD resistors.

The Global Info Research report includes an overview of the development of the Metal Foil SMD Resistors industry chain, the market status of Industrial (High Precision Resistor, Precision Resistor), Aerospace and Defense (High Precision Resistor, Precision Resistor), and key enterprises in developed and developing market, and analysed the cutting-edge technology, patent, hot applications and market trends of Metal Foil SMD Resistors.



Regionally, the report analyzes the Metal Foil SMD Resistors markets in key regions. North America and Europe are experiencing steady growth, driven by government initiatives and increasing consumer awareness. Asia-Pacific, particularly China, leads the global Metal Foil SMD Resistors market, with robust domestic demand, supportive policies, and a strong manufacturing base.

#### **Key Features:**

The report presents comprehensive understanding of the Metal Foil SMD Resistors market. It provides a holistic view of the industry, as well as detailed insights into individual components and stakeholders. The report analysis market dynamics, trends, challenges, and opportunities within the Metal Foil SMD Resistors industry.

The report involves analyzing the market at a macro level:

Market Sizing and Segmentation: Report collect data on the overall market size, including the sales quantity (K Units), revenue generated, and market share of different by Type (e.g., High Precision Resistor, Precision Resistor).

Industry Analysis: Report analyse the broader industry trends, such as government policies and regulations, technological advancements, consumer preferences, and market dynamics. This analysis helps in understanding the key drivers and challenges influencing the Metal Foil SMD Resistors market.

Regional Analysis: The report involves examining the Metal Foil SMD Resistors market at a regional or national level. Report analyses regional factors such as government incentives, infrastructure development, economic conditions, and consumer behaviour to identify variations and opportunities within different markets.

Market Projections: Report covers the gathered data and analysis to make future projections and forecasts for the Metal Foil SMD Resistors market. This may include estimating market growth rates, predicting market demand, and identifying emerging trends.

The report also involves a more granular approach to Metal Foil SMD Resistors:

Company Analysis: Report covers individual Metal Foil SMD Resistors manufacturers, suppliers, and other relevant industry players. This analysis includes studying their



financial performance, market positioning, product portfolios, partnerships, and strategies.

Consumer Analysis: Report covers data on consumer behaviour, preferences, and attitudes towards Metal Foil SMD Resistors This may involve surveys, interviews, and analysis of consumer reviews and feedback from different by Application (Industrial, Aerospace and Defense).

Technology Analysis: Report covers specific technologies relevant to Metal Foil SMD Resistors. It assesses the current state, advancements, and potential future developments in Metal Foil SMD Resistors areas.

Competitive Landscape: By analyzing individual companies, suppliers, and consumers, the report present insights into the competitive landscape of the Metal Foil SMD Resistors market. This analysis helps understand market share, competitive advantages, and potential areas for differentiation among industry players.

Market Validation: The report involves validating findings and projections through primary research, such as surveys, interviews, and focus groups.

Market Segmentation

Metal Foil SMD Resistors market is split by Type and by Application. For the period 2018-2029, the growth among segments provides accurate calculations and forecasts for consumption value by Type, and by Application in terms of volume and value.

Market segment by Type

High Precision Resistor

Precision Resistor

Market segment by Application

Industrial

Aerospace and Defense



	Medical
	Telecommunication
	Automotive
	Others
Major players covered	
	Vishay Precision Group
	Susumu
	Bourns
	Viking Tech
	Walsin Technology
	Ever Ohms
	Ta-I Technology
	Ohmite
	TT Electronics
	Tateyama Kagaku
	Cyntec
	MEGATRON
	Stackpole Electronics
	Jining Tiangeng Electric



#### MEGATRON Elektronik

Littelfuse

Market segment by region, regional analysis covers

North America (United States, Canada and Mexico)

Europe (Germany, France, United Kingdom, Russia, Italy, and Rest of Europe)

Asia-Pacific (China, Japan, Korea, India, Southeast Asia, and Australia)

South America (Brazil, Argentina, Colombia, and Rest of South America)

Middle East & Africa (Saudi Arabia, UAE, Egypt, South Africa, and Rest of Middle East & Africa)

The content of the study subjects, includes a total of 15 chapters:

Chapter 1, to describe Metal Foil SMD Resistors product scope, market overview, market estimation caveats and base year.

Chapter 2, to profile the top manufacturers of Metal Foil SMD Resistors, with price, sales, revenue and global market share of Metal Foil SMD Resistors from 2018 to 2023.

Chapter 3, the Metal Foil SMD Resistors competitive situation, sales quantity, revenue and global market share of top manufacturers are analyzed emphatically by landscape contrast.

Chapter 4, the Metal Foil SMD Resistors breakdown data are shown at the regional level, to show the sales quantity, consumption value and growth by regions, from 2018 to 2029.

Chapter 5 and 6, to segment the sales by Type and application, with sales market share and growth rate by type, application, from 2018 to 2029.

Chapter 7, 8, 9, 10 and 11, to break the sales data at the country level, with sales



quantity, consumption value and market share for key countries in the world, from 2017 to 2022.and Metal Foil SMD Resistors market forecast, by regions, type and application, with sales and revenue, from 2024 to 2029.

Chapter 12, market dynamics, drivers, restraints, trends and Porters Five Forces analysis.

Chapter 13, the key raw materials and key suppliers, and industry chain of Metal Foil SMD Resistors.

Chapter 14 and 15, to describe Metal Foil SMD Resistors sales channel, distributors, customers, research findings and conclusion.



#### **Contents**

#### 1 MARKET OVERVIEW

- 1.1 Product Overview and Scope of Metal Foil SMD Resistors
- 1.2 Market Estimation Caveats and Base Year
- 1.3 Market Analysis by Type
- 1.3.1 Overview: Global Metal Foil SMD Resistors Consumption Value by Type: 2018

#### Versus 2022 Versus 2029

- 1.3.2 High Precision Resistor
- 1.3.3 Precision Resistor
- 1.4 Market Analysis by Application
  - 1.4.1 Overview: Global Metal Foil SMD Resistors Consumption Value by Application:

#### 2018 Versus 2022 Versus 2029

- 1.4.2 Industrial
- 1.4.3 Aerospace and Defense
- 1.4.4 Medical
- 1.4.5 Telecommunication
- 1.4.6 Automotive
- 1.4.7 Others
- 1.5 Global Metal Foil SMD Resistors Market Size & Forecast
  - 1.5.1 Global Metal Foil SMD Resistors Consumption Value (2018 & 2022 & 2029)
  - 1.5.2 Global Metal Foil SMD Resistors Sales Quantity (2018-2029)
  - 1.5.3 Global Metal Foil SMD Resistors Average Price (2018-2029)

#### **2 MANUFACTURERS PROFILES**

- 2.1 Vishay Precision Group
  - 2.1.1 Vishay Precision Group Details
  - 2.1.2 Vishay Precision Group Major Business
  - 2.1.3 Vishay Precision Group Metal Foil SMD Resistors Product and Services
  - 2.1.4 Vishay Precision Group Metal Foil SMD Resistors Sales Quantity, Average Price,

#### Revenue, Gross Margin and Market Share (2018-2023)

- 2.1.5 Vishay Precision Group Recent Developments/Updates
- 2.2 Susumu
  - 2.2.1 Susumu Details
  - 2.2.2 Susumu Major Business
  - 2.2.3 Susumu Metal Foil SMD Resistors Product and Services
  - 2.2.4 Susumu Metal Foil SMD Resistors Sales Quantity, Average Price, Revenue,



Gross Margin and Market Share (2018-2023)

- 2.2.5 Susumu Recent Developments/Updates
- 2.3 Bourns
  - 2.3.1 Bourns Details
  - 2.3.2 Bourns Major Business
  - 2.3.3 Bourns Metal Foil SMD Resistors Product and Services
- 2.3.4 Bourns Metal Foil SMD Resistors Sales Quantity, Average Price, Revenue,

Gross Margin and Market Share (2018-2023)

- 2.3.5 Bourns Recent Developments/Updates
- 2.4 Viking Tech
  - 2.4.1 Viking Tech Details
  - 2.4.2 Viking Tech Major Business
- 2.4.3 Viking Tech Metal Foil SMD Resistors Product and Services
- 2.4.4 Viking Tech Metal Foil SMD Resistors Sales Quantity, Average Price, Revenue,

Gross Margin and Market Share (2018-2023)

- 2.4.5 Viking Tech Recent Developments/Updates
- 2.5 Walsin Technology
  - 2.5.1 Walsin Technology Details
  - 2.5.2 Walsin Technology Major Business
  - 2.5.3 Walsin Technology Metal Foil SMD Resistors Product and Services
  - 2.5.4 Walsin Technology Metal Foil SMD Resistors Sales Quantity, Average Price,

Revenue, Gross Margin and Market Share (2018-2023)

- 2.5.5 Walsin Technology Recent Developments/Updates
- 2.6 Ever Ohms
  - 2.6.1 Ever Ohms Details
  - 2.6.2 Ever Ohms Major Business
- 2.6.3 Ever Ohms Metal Foil SMD Resistors Product and Services
- 2.6.4 Ever Ohms Metal Foil SMD Resistors Sales Quantity, Average Price, Revenue,

Gross Margin and Market Share (2018-2023)

- 2.6.5 Ever Ohms Recent Developments/Updates
- 2.7 Ta-I Technology
  - 2.7.1 Ta-I Technology Details
  - 2.7.2 Ta-I Technology Major Business
  - 2.7.3 Ta-I Technology Metal Foil SMD Resistors Product and Services
  - 2.7.4 Ta-I Technology Metal Foil SMD Resistors Sales Quantity, Average Price,

Revenue, Gross Margin and Market Share (2018-2023)

- 2.7.5 Ta-I Technology Recent Developments/Updates
- 2.8 Ohmite
- 2.8.1 Ohmite Details



- 2.8.2 Ohmite Major Business
- 2.8.3 Ohmite Metal Foil SMD Resistors Product and Services
- 2.8.4 Ohmite Metal Foil SMD Resistors Sales Quantity, Average Price, Revenue,

Gross Margin and Market Share (2018-2023)

- 2.8.5 Ohmite Recent Developments/Updates
- 2.9 TT Electronics
  - 2.9.1 TT Electronics Details
  - 2.9.2 TT Electronics Major Business
  - 2.9.3 TT Electronics Metal Foil SMD Resistors Product and Services
  - 2.9.4 TT Electronics Metal Foil SMD Resistors Sales Quantity, Average Price,

Revenue, Gross Margin and Market Share (2018-2023)

- 2.9.5 TT Electronics Recent Developments/Updates
- 2.10 Tateyama Kagaku
  - 2.10.1 Tateyama Kagaku Details
  - 2.10.2 Tateyama Kagaku Major Business
  - 2.10.3 Tateyama Kagaku Metal Foil SMD Resistors Product and Services
  - 2.10.4 Tateyama Kagaku Metal Foil SMD Resistors Sales Quantity, Average Price,

Revenue, Gross Margin and Market Share (2018-2023)

- 2.10.5 Tateyama Kagaku Recent Developments/Updates
- 2.11 Cyntec
  - 2.11.1 Cyntec Details
  - 2.11.2 Cyntec Major Business
  - 2.11.3 Cyntec Metal Foil SMD Resistors Product and Services
  - 2.11.4 Cyntec Metal Foil SMD Resistors Sales Quantity, Average Price, Revenue,

Gross Margin and Market Share (2018-2023)

- 2.11.5 Cyntec Recent Developments/Updates
- 2.12 MEGATRON
  - 2.12.1 MEGATRON Details
  - 2.12.2 MEGATRON Major Business
  - 2.12.3 MEGATRON Metal Foil SMD Resistors Product and Services
  - 2.12.4 MEGATRON Metal Foil SMD Resistors Sales Quantity, Average Price,

Revenue, Gross Margin and Market Share (2018-2023)

- 2.12.5 MEGATRON Recent Developments/Updates
- 2.13 Stackpole Electronics
  - 2.13.1 Stackpole Electronics Details
  - 2.13.2 Stackpole Electronics Major Business
  - 2.13.3 Stackpole Electronics Metal Foil SMD Resistors Product and Services
- 2.13.4 Stackpole Electronics Metal Foil SMD Resistors Sales Quantity, Average Price,

Revenue, Gross Margin and Market Share (2018-2023)



- 2.13.5 Stackpole Electronics Recent Developments/Updates
- 2.14 Jining Tiangeng Electric
  - 2.14.1 Jining Tiangeng Electric Details
  - 2.14.2 Jining Tiangeng Electric Major Business
  - 2.14.3 Jining Tiangeng Electric Metal Foil SMD Resistors Product and Services
  - 2.14.4 Jining Tiangeng Electric Metal Foil SMD Resistors Sales Quantity, Average

Price, Revenue, Gross Margin and Market Share (2018-2023)

- 2.14.5 Jining Tiangeng Electric Recent Developments/Updates
- 2.15 MEGATRON Elektronik
  - 2.15.1 MEGATRON Elektronik Details
  - 2.15.2 MEGATRON Elektronik Major Business
  - 2.15.3 MEGATRON Elektronik Metal Foil SMD Resistors Product and Services
  - 2.15.4 MEGATRON Elektronik Metal Foil SMD Resistors Sales Quantity, Average

Price, Revenue, Gross Margin and Market Share (2018-2023)

- 2.15.5 MEGATRON Elektronik Recent Developments/Updates
- 2.16 Littelfuse
  - 2.16.1 Littelfuse Details
  - 2.16.2 Littelfuse Major Business
  - 2.16.3 Littelfuse Metal Foil SMD Resistors Product and Services
- 2.16.4 Littelfuse Metal Foil SMD Resistors Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2018-2023)
  - 2.16.5 Littelfuse Recent Developments/Updates

# 3 COMPETITIVE ENVIRONMENT: METAL FOIL SMD RESISTORS BY MANUFACTURER

- 3.1 Global Metal Foil SMD Resistors Sales Quantity by Manufacturer (2018-2023)
- 3.2 Global Metal Foil SMD Resistors Revenue by Manufacturer (2018-2023)
- 3.3 Global Metal Foil SMD Resistors Average Price by Manufacturer (2018-2023)
- 3.4 Market Share Analysis (2022)
- 3.4.1 Producer Shipments of Metal Foil SMD Resistors by Manufacturer Revenue (\$MM) and Market Share (%): 2022
- 3.4.2 Top 3 Metal Foil SMD Resistors Manufacturer Market Share in 2022
- 3.4.2 Top 6 Metal Foil SMD Resistors Manufacturer Market Share in 2022
- 3.5 Metal Foil SMD Resistors Market: Overall Company Footprint Analysis
  - 3.5.1 Metal Foil SMD Resistors Market: Region Footprint
  - 3.5.2 Metal Foil SMD Resistors Market: Company Product Type Footprint
- 3.5.3 Metal Foil SMD Resistors Market: Company Product Application Footprint
- 3.6 New Market Entrants and Barriers to Market Entry



#### 3.7 Mergers, Acquisition, Agreements, and Collaborations

#### **4 CONSUMPTION ANALYSIS BY REGION**

- 4.1 Global Metal Foil SMD Resistors Market Size by Region
  - 4.1.1 Global Metal Foil SMD Resistors Sales Quantity by Region (2018-2029)
- 4.1.2 Global Metal Foil SMD Resistors Consumption Value by Region (2018-2029)
- 4.1.3 Global Metal Foil SMD Resistors Average Price by Region (2018-2029)
- 4.2 North America Metal Foil SMD Resistors Consumption Value (2018-2029)
- 4.3 Europe Metal Foil SMD Resistors Consumption Value (2018-2029)
- 4.4 Asia-Pacific Metal Foil SMD Resistors Consumption Value (2018-2029)
- 4.5 South America Metal Foil SMD Resistors Consumption Value (2018-2029)
- 4.6 Middle East and Africa Metal Foil SMD Resistors Consumption Value (2018-2029)

#### **5 MARKET SEGMENT BY TYPE**

- 5.1 Global Metal Foil SMD Resistors Sales Quantity by Type (2018-2029)
- 5.2 Global Metal Foil SMD Resistors Consumption Value by Type (2018-2029)
- 5.3 Global Metal Foil SMD Resistors Average Price by Type (2018-2029)

#### **6 MARKET SEGMENT BY APPLICATION**

- 6.1 Global Metal Foil SMD Resistors Sales Quantity by Application (2018-2029)
- 6.2 Global Metal Foil SMD Resistors Consumption Value by Application (2018-2029)
- 6.3 Global Metal Foil SMD Resistors Average Price by Application (2018-2029)

#### 7 NORTH AMERICA

- 7.1 North America Metal Foil SMD Resistors Sales Quantity by Type (2018-2029)
- 7.2 North America Metal Foil SMD Resistors Sales Quantity by Application (2018-2029)
- 7.3 North America Metal Foil SMD Resistors Market Size by Country
  - 7.3.1 North America Metal Foil SMD Resistors Sales Quantity by Country (2018-2029)
- 7.3.2 North America Metal Foil SMD Resistors Consumption Value by Country (2018-2029)
  - 7.3.3 United States Market Size and Forecast (2018-2029)
  - 7.3.4 Canada Market Size and Forecast (2018-2029)
  - 7.3.5 Mexico Market Size and Forecast (2018-2029)

#### **8 EUROPE**



- 8.1 Europe Metal Foil SMD Resistors Sales Quantity by Type (2018-2029)
- 8.2 Europe Metal Foil SMD Resistors Sales Quantity by Application (2018-2029)
- 8.3 Europe Metal Foil SMD Resistors Market Size by Country
- 8.3.1 Europe Metal Foil SMD Resistors Sales Quantity by Country (2018-2029)
- 8.3.2 Europe Metal Foil SMD Resistors Consumption Value by Country (2018-2029)
- 8.3.3 Germany Market Size and Forecast (2018-2029)
- 8.3.4 France Market Size and Forecast (2018-2029)
- 8.3.5 United Kingdom Market Size and Forecast (2018-2029)
- 8.3.6 Russia Market Size and Forecast (2018-2029)
- 8.3.7 Italy Market Size and Forecast (2018-2029)

#### 9 ASIA-PACIFIC

- 9.1 Asia-Pacific Metal Foil SMD Resistors Sales Quantity by Type (2018-2029)
- 9.2 Asia-Pacific Metal Foil SMD Resistors Sales Quantity by Application (2018-2029)
- 9.3 Asia-Pacific Metal Foil SMD Resistors Market Size by Region
  - 9.3.1 Asia-Pacific Metal Foil SMD Resistors Sales Quantity by Region (2018-2029)
- 9.3.2 Asia-Pacific Metal Foil SMD Resistors Consumption Value by Region (2018-2029)
  - 9.3.3 China Market Size and Forecast (2018-2029)
  - 9.3.4 Japan Market Size and Forecast (2018-2029)
  - 9.3.5 Korea Market Size and Forecast (2018-2029)
  - 9.3.6 India Market Size and Forecast (2018-2029)
  - 9.3.7 Southeast Asia Market Size and Forecast (2018-2029)
  - 9.3.8 Australia Market Size and Forecast (2018-2029)

#### 10 SOUTH AMERICA

- 10.1 South America Metal Foil SMD Resistors Sales Quantity by Type (2018-2029)
- 10.2 South America Metal Foil SMD Resistors Sales Quantity by Application (2018-2029)
- 10.3 South America Metal Foil SMD Resistors Market Size by Country
- 10.3.1 South America Metal Foil SMD Resistors Sales Quantity by Country (2018-2029)
- 10.3.2 South America Metal Foil SMD Resistors Consumption Value by Country (2018-2029)
  - 10.3.3 Brazil Market Size and Forecast (2018-2029)
  - 10.3.4 Argentina Market Size and Forecast (2018-2029)



#### 11 MIDDLE EAST & AFRICA

- 11.1 Middle East & Africa Metal Foil SMD Resistors Sales Quantity by Type (2018-2029)
- 11.2 Middle East & Africa Metal Foil SMD Resistors Sales Quantity by Application (2018-2029)
- 11.3 Middle East & Africa Metal Foil SMD Resistors Market Size by Country
- 11.3.1 Middle East & Africa Metal Foil SMD Resistors Sales Quantity by Country (2018-2029)
- 11.3.2 Middle East & Africa Metal Foil SMD Resistors Consumption Value by Country (2018-2029)
  - 11.3.3 Turkey Market Size and Forecast (2018-2029)
  - 11.3.4 Egypt Market Size and Forecast (2018-2029)
  - 11.3.5 Saudi Arabia Market Size and Forecast (2018-2029)
  - 11.3.6 South Africa Market Size and Forecast (2018-2029)

#### 12 MARKET DYNAMICS

- 12.1 Metal Foil SMD Resistors Market Drivers
- 12.2 Metal Foil SMD Resistors Market Restraints
- 12.3 Metal Foil SMD Resistors Trends Analysis
- 12.4 Porters Five Forces Analysis
  - 12.4.1 Threat of New Entrants
  - 12.4.2 Bargaining Power of Suppliers
  - 12.4.3 Bargaining Power of Buyers
  - 12.4.4 Threat of Substitutes
  - 12.4.5 Competitive Rivalry

#### 13 RAW MATERIAL AND INDUSTRY CHAIN

- 13.1 Raw Material of Metal Foil SMD Resistors and Key Manufacturers
- 13.2 Manufacturing Costs Percentage of Metal Foil SMD Resistors
- 13.3 Metal Foil SMD Resistors Production Process
- 13.4 Metal Foil SMD Resistors Industrial Chain

#### 14 SHIPMENTS BY DISTRIBUTION CHANNEL

#### 14.1 Sales Channel



- 14.1.1 Direct to End-User
- 14.1.2 Distributors
- 14.2 Metal Foil SMD Resistors Typical Distributors
- 14.3 Metal Foil SMD Resistors Typical Customers

#### 15 RESEARCH FINDINGS AND CONCLUSION

#### **16 APPENDIX**

- 16.1 Methodology
- 16.2 Research Process and Data Source
- 16.3 Disclaimer



## **List Of Tables**

#### LIST OF TABLES

- Table 1. Global Metal Foil SMD Resistors Consumption Value by Type, (USD Million), 2018 & 2022 & 2029
- Table 2. Global Metal Foil SMD Resistors Consumption Value by Application, (USD Million), 2018 & 2022 & 2029
- Table 3. Vishay Precision Group Basic Information, Manufacturing Base and Competitors
- Table 4. Vishay Precision Group Major Business
- Table 5. Vishay Precision Group Metal Foil SMD Resistors Product and Services
- Table 6. Vishay Precision Group Metal Foil SMD Resistors Sales Quantity (K Units),
- Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)
- Table 7. Vishay Precision Group Recent Developments/Updates
- Table 8. Susumu Basic Information, Manufacturing Base and Competitors
- Table 9. Susumu Major Business
- Table 10. Susumu Metal Foil SMD Resistors Product and Services
- Table 11. Susumu Metal Foil SMD Resistors Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)
- Table 12. Susumu Recent Developments/Updates
- Table 13. Bourns Basic Information, Manufacturing Base and Competitors
- Table 14. Bourns Major Business
- Table 15. Bourns Metal Foil SMD Resistors Product and Services
- Table 16. Bourns Metal Foil SMD Resistors Sales Quantity (K Units), Average Price
- (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)
- Table 17. Bourns Recent Developments/Updates
- Table 18. Viking Tech Basic Information, Manufacturing Base and Competitors
- Table 19. Viking Tech Major Business
- Table 20. Viking Tech Metal Foil SMD Resistors Product and Services
- Table 21. Viking Tech Metal Foil SMD Resistors Sales Quantity (K Units), Average
- Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)
- Table 22. Viking Tech Recent Developments/Updates
- Table 23. Walsin Technology Basic Information, Manufacturing Base and Competitors
- Table 24. Walsin Technology Major Business
- Table 25. Walsin Technology Metal Foil SMD Resistors Product and Services
- Table 26. Walsin Technology Metal Foil SMD Resistors Sales Quantity (K Units),
- Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share



#### (2018-2023)

- Table 27. Walsin Technology Recent Developments/Updates
- Table 28. Ever Ohms Basic Information, Manufacturing Base and Competitors
- Table 29. Ever Ohms Major Business
- Table 30. Ever Ohms Metal Foil SMD Resistors Product and Services
- Table 31. Ever Ohms Metal Foil SMD Resistors Sales Quantity (K Units), Average Price
- (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)
- Table 32. Ever Ohms Recent Developments/Updates
- Table 33. Ta-I Technology Basic Information, Manufacturing Base and Competitors
- Table 34. Ta-I Technology Major Business
- Table 35. Ta-I Technology Metal Foil SMD Resistors Product and Services
- Table 36. Ta-I Technology Metal Foil SMD Resistors Sales Quantity (K Units), Average
- Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)
- Table 37. Ta-I Technology Recent Developments/Updates
- Table 38. Ohmite Basic Information, Manufacturing Base and Competitors
- Table 39. Ohmite Major Business
- Table 40. Ohmite Metal Foil SMD Resistors Product and Services
- Table 41. Ohmite Metal Foil SMD Resistors Sales Quantity (K Units), Average Price
- (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)
- Table 42. Ohmite Recent Developments/Updates
- Table 43. TT Electronics Basic Information, Manufacturing Base and Competitors
- Table 44. TT Electronics Major Business
- Table 45. TT Electronics Metal Foil SMD Resistors Product and Services
- Table 46. TT Electronics Metal Foil SMD Resistors Sales Quantity (K Units), Average
- Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)
- Table 47. TT Electronics Recent Developments/Updates
- Table 48. Tateyama Kagaku Basic Information, Manufacturing Base and Competitors
- Table 49. Tateyama Kagaku Major Business
- Table 50. Tateyama Kagaku Metal Foil SMD Resistors Product and Services
- Table 51. Tateyama Kagaku Metal Foil SMD Resistors Sales Quantity (K Units),
- Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)
- Table 52. Tateyama Kagaku Recent Developments/Updates
- Table 53. Cyntec Basic Information, Manufacturing Base and Competitors
- Table 54. Cyntec Major Business
- Table 55. Cyntec Metal Foil SMD Resistors Product and Services
- Table 56. Cyntec Metal Foil SMD Resistors Sales Quantity (K Units), Average Price
- (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)
- Table 57. Cyntec Recent Developments/Updates



- Table 58. MEGATRON Basic Information, Manufacturing Base and Competitors
- Table 59. MEGATRON Major Business
- Table 60. MEGATRON Metal Foil SMD Resistors Product and Services
- Table 61. MEGATRON Metal Foil SMD Resistors Sales Quantity (K Units), Average
- Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)
- Table 62. MEGATRON Recent Developments/Updates
- Table 63. Stackpole Electronics Basic Information, Manufacturing Base and Competitors
- Table 64. Stackpole Electronics Major Business
- Table 65. Stackpole Electronics Metal Foil SMD Resistors Product and Services
- Table 66. Stackpole Electronics Metal Foil SMD Resistors Sales Quantity (K Units),
- Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)
- Table 67. Stackpole Electronics Recent Developments/Updates
- Table 68. Jining Tiangeng Electric Basic Information, Manufacturing Base and Competitors
- Table 69. Jining Tiangeng Electric Major Business
- Table 70. Jining Tiangeng Electric Metal Foil SMD Resistors Product and Services
- Table 71. Jining Tiangeng Electric Metal Foil SMD Resistors Sales Quantity (K Units),
- Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)
- Table 72. Jining Tiangeng Electric Recent Developments/Updates
- Table 73. MEGATRON Elektronik Basic Information, Manufacturing Base and Competitors
- Table 74. MEGATRON Elektronik Major Business
- Table 75. MEGATRON Elektronik Metal Foil SMD Resistors Product and Services
- Table 76. MEGATRON Elektronik Metal Foil SMD Resistors Sales Quantity (K Units),
- Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)
- Table 77. MEGATRON Elektronik Recent Developments/Updates
- Table 78. Littelfuse Basic Information, Manufacturing Base and Competitors
- Table 79. Littelfuse Major Business
- Table 80. Littelfuse Metal Foil SMD Resistors Product and Services
- Table 81. Littelfuse Metal Foil SMD Resistors Sales Quantity (K Units), Average Price
- (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)
- Table 82. Littelfuse Recent Developments/Updates
- Table 83. Global Metal Foil SMD Resistors Sales Quantity by Manufacturer (2018-2023) & (K Units)
- Table 84. Global Metal Foil SMD Resistors Revenue by Manufacturer (2018-2023) &



(USD Million)

Table 85. Global Metal Foil SMD Resistors Average Price by Manufacturer (2018-2023) & (US\$/Unit)

Table 86. Market Position of Manufacturers in Metal Foil SMD Resistors, (Tier 1, Tier 2, and Tier 3), Based on Consumption Value in 2022

Table 87. Head Office and Metal Foil SMD Resistors Production Site of Key Manufacturer

Table 88. Metal Foil SMD Resistors Market: Company Product Type Footprint

Table 89. Metal Foil SMD Resistors Market: Company Product Application Footprint

Table 90. Metal Foil SMD Resistors New Market Entrants and Barriers to Market Entry

Table 91. Metal Foil SMD Resistors Mergers, Acquisition, Agreements, and Collaborations

Table 92. Global Metal Foil SMD Resistors Sales Quantity by Region (2018-2023) & (K Units)

Table 93. Global Metal Foil SMD Resistors Sales Quantity by Region (2024-2029) & (K Units)

Table 94. Global Metal Foil SMD Resistors Consumption Value by Region (2018-2023) & (USD Million)

Table 95. Global Metal Foil SMD Resistors Consumption Value by Region (2024-2029) & (USD Million)

Table 96. Global Metal Foil SMD Resistors Average Price by Region (2018-2023) & (US\$/Unit)

Table 97. Global Metal Foil SMD Resistors Average Price by Region (2024-2029) & (US\$/Unit)

Table 98. Global Metal Foil SMD Resistors Sales Quantity by Type (2018-2023) & (K Units)

Table 99. Global Metal Foil SMD Resistors Sales Quantity by Type (2024-2029) & (K Units)

Table 100. Global Metal Foil SMD Resistors Consumption Value by Type (2018-2023) & (USD Million)

Table 101. Global Metal Foil SMD Resistors Consumption Value by Type (2024-2029) & (USD Million)

Table 102. Global Metal Foil SMD Resistors Average Price by Type (2018-2023) & (US\$/Unit)

Table 103. Global Metal Foil SMD Resistors Average Price by Type (2024-2029) & (US\$/Unit)

Table 104. Global Metal Foil SMD Resistors Sales Quantity by Application (2018-2023) & (K Units)

Table 105. Global Metal Foil SMD Resistors Sales Quantity by Application (2024-2029)



& (K Units)

Table 106. Global Metal Foil SMD Resistors Consumption Value by Application (2018-2023) & (USD Million)

Table 107. Global Metal Foil SMD Resistors Consumption Value by Application (2024-2029) & (USD Million)

Table 108. Global Metal Foil SMD Resistors Average Price by Application (2018-2023) & (US\$/Unit)

Table 109. Global Metal Foil SMD Resistors Average Price by Application (2024-2029) & (US\$/Unit)

Table 110. North America Metal Foil SMD Resistors Sales Quantity by Type (2018-2023) & (K Units)

Table 111. North America Metal Foil SMD Resistors Sales Quantity by Type (2024-2029) & (K Units)

Table 112. North America Metal Foil SMD Resistors Sales Quantity by Application (2018-2023) & (K Units)

Table 113. North America Metal Foil SMD Resistors Sales Quantity by Application (2024-2029) & (K Units)

Table 114. North America Metal Foil SMD Resistors Sales Quantity by Country (2018-2023) & (K Units)

Table 115. North America Metal Foil SMD Resistors Sales Quantity by Country (2024-2029) & (K Units)

Table 116. North America Metal Foil SMD Resistors Consumption Value by Country (2018-2023) & (USD Million)

Table 117. North America Metal Foil SMD Resistors Consumption Value by Country (2024-2029) & (USD Million)

Table 118. Europe Metal Foil SMD Resistors Sales Quantity by Type (2018-2023) & (K Units)

Table 119. Europe Metal Foil SMD Resistors Sales Quantity by Type (2024-2029) & (K Units)

Table 120. Europe Metal Foil SMD Resistors Sales Quantity by Application (2018-2023) & (K Units)

Table 121. Europe Metal Foil SMD Resistors Sales Quantity by Application (2024-2029) & (K Units)

Table 122. Europe Metal Foil SMD Resistors Sales Quantity by Country (2018-2023) & (K Units)

Table 123. Europe Metal Foil SMD Resistors Sales Quantity by Country (2024-2029) & (K Units)

Table 124. Europe Metal Foil SMD Resistors Consumption Value by Country (2018-2023) & (USD Million)



Table 125. Europe Metal Foil SMD Resistors Consumption Value by Country (2024-2029) & (USD Million)

Table 126. Asia-Pacific Metal Foil SMD Resistors Sales Quantity by Type (2018-2023) & (K Units)

Table 127. Asia-Pacific Metal Foil SMD Resistors Sales Quantity by Type (2024-2029) & (K Units)

Table 128. Asia-Pacific Metal Foil SMD Resistors Sales Quantity by Application (2018-2023) & (K Units)

Table 129. Asia-Pacific Metal Foil SMD Resistors Sales Quantity by Application (2024-2029) & (K Units)

Table 130. Asia-Pacific Metal Foil SMD Resistors Sales Quantity by Region (2018-2023) & (K Units)

Table 131. Asia-Pacific Metal Foil SMD Resistors Sales Quantity by Region (2024-2029) & (K Units)

Table 132. Asia-Pacific Metal Foil SMD Resistors Consumption Value by Region (2018-2023) & (USD Million)

Table 133. Asia-Pacific Metal Foil SMD Resistors Consumption Value by Region (2024-2029) & (USD Million)

Table 134. South America Metal Foil SMD Resistors Sales Quantity by Type (2018-2023) & (K Units)

Table 135. South America Metal Foil SMD Resistors Sales Quantity by Type (2024-2029) & (K Units)

Table 136. South America Metal Foil SMD Resistors Sales Quantity by Application (2018-2023) & (K Units)

Table 137. South America Metal Foil SMD Resistors Sales Quantity by Application (2024-2029) & (K Units)

Table 138. South America Metal Foil SMD Resistors Sales Quantity by Country (2018-2023) & (K Units)

Table 139. South America Metal Foil SMD Resistors Sales Quantity by Country (2024-2029) & (K Units)

Table 140. South America Metal Foil SMD Resistors Consumption Value by Country (2018-2023) & (USD Million)

Table 141. South America Metal Foil SMD Resistors Consumption Value by Country (2024-2029) & (USD Million)

Table 142. Middle East & Africa Metal Foil SMD Resistors Sales Quantity by Type (2018-2023) & (K Units)

Table 143. Middle East & Africa Metal Foil SMD Resistors Sales Quantity by Type (2024-2029) & (K Units)

Table 144. Middle East & Africa Metal Foil SMD Resistors Sales Quantity by Application



(2018-2023) & (K Units)

Table 145. Middle East & Africa Metal Foil SMD Resistors Sales Quantity by Application (2024-2029) & (K Units)

Table 146. Middle East & Africa Metal Foil SMD Resistors Sales Quantity by Region (2018-2023) & (K Units)

Table 147. Middle East & Africa Metal Foil SMD Resistors Sales Quantity by Region (2024-2029) & (K Units)

Table 148. Middle East & Africa Metal Foil SMD Resistors Consumption Value by Region (2018-2023) & (USD Million)

Table 149. Middle East & Africa Metal Foil SMD Resistors Consumption Value by Region (2024-2029) & (USD Million)

Table 150. Metal Foil SMD Resistors Raw Material

Table 151. Key Manufacturers of Metal Foil SMD Resistors Raw Materials

Table 152. Metal Foil SMD Resistors Typical Distributors

Table 153. Metal Foil SMD Resistors Typical Customers



# **List Of Figures**

#### LIST OF FIGURES

Figure 1. Metal Foil SMD Resistors Picture

Figure 2. Global Metal Foil SMD Resistors Consumption Value by Type, (USD Million), 2018 & 2022 & 2029

Figure 3. Global Metal Foil SMD Resistors Consumption Value Market Share by Type in 2022

Figure 4. High Precision Resistor Examples

Figure 5. Precision Resistor Examples

Figure 6. Global Metal Foil SMD Resistors Consumption Value by Application, (USD Million), 2018 & 2022 & 2029

Figure 7. Global Metal Foil SMD Resistors Consumption Value Market Share by Application in 2022

Figure 8. Industrial Examples

Figure 9. Aerospace and Defense Examples

Figure 10. Medical Examples

Figure 11. Telecommunication Examples

Figure 12. Automotive Examples

Figure 13. Others Examples

Figure 14. Global Metal Foil SMD Resistors Consumption Value, (USD Million): 2018 & 2022 & 2029

Figure 15. Global Metal Foil SMD Resistors Consumption Value and Forecast (2018-2029) & (USD Million)

Figure 16. Global Metal Foil SMD Resistors Sales Quantity (2018-2029) & (K Units)

Figure 17. Global Metal Foil SMD Resistors Average Price (2018-2029) & (US\$/Unit)

Figure 18. Global Metal Foil SMD Resistors Sales Quantity Market Share by Manufacturer in 2022

Figure 19. Global Metal Foil SMD Resistors Consumption Value Market Share by Manufacturer in 2022

Figure 20. Producer Shipments of Metal Foil SMD Resistors by Manufacturer Sales Quantity (\$MM) and Market Share (%): 2021

Figure 21. Top 3 Metal Foil SMD Resistors Manufacturer (Consumption Value) Market Share in 2022

Figure 22. Top 6 Metal Foil SMD Resistors Manufacturer (Consumption Value) Market Share in 2022

Figure 23. Global Metal Foil SMD Resistors Sales Quantity Market Share by Region (2018-2029)



- Figure 24. Global Metal Foil SMD Resistors Consumption Value Market Share by Region (2018-2029)
- Figure 25. North America Metal Foil SMD Resistors Consumption Value (2018-2029) & (USD Million)
- Figure 26. Europe Metal Foil SMD Resistors Consumption Value (2018-2029) & (USD Million)
- Figure 27. Asia-Pacific Metal Foil SMD Resistors Consumption Value (2018-2029) & (USD Million)
- Figure 28. South America Metal Foil SMD Resistors Consumption Value (2018-2029) & (USD Million)
- Figure 29. Middle East & Africa Metal Foil SMD Resistors Consumption Value (2018-2029) & (USD Million)
- Figure 30. Global Metal Foil SMD Resistors Sales Quantity Market Share by Type (2018-2029)
- Figure 31. Global Metal Foil SMD Resistors Consumption Value Market Share by Type (2018-2029)
- Figure 32. Global Metal Foil SMD Resistors Average Price by Type (2018-2029) & (US\$/Unit)
- Figure 33. Global Metal Foil SMD Resistors Sales Quantity Market Share by Application (2018-2029)
- Figure 34. Global Metal Foil SMD Resistors Consumption Value Market Share by Application (2018-2029)
- Figure 35. Global Metal Foil SMD Resistors Average Price by Application (2018-2029) & (US\$/Unit)
- Figure 36. North America Metal Foil SMD Resistors Sales Quantity Market Share by Type (2018-2029)
- Figure 37. North America Metal Foil SMD Resistors Sales Quantity Market Share by Application (2018-2029)
- Figure 38. North America Metal Foil SMD Resistors Sales Quantity Market Share by Country (2018-2029)
- Figure 39. North America Metal Foil SMD Resistors Consumption Value Market Share by Country (2018-2029)
- Figure 40. United States Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)
- Figure 41. Canada Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)
- Figure 42. Mexico Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)
- Figure 43. Europe Metal Foil SMD Resistors Sales Quantity Market Share by Type



(2018-2029)

Figure 44. Europe Metal Foil SMD Resistors Sales Quantity Market Share by Application (2018-2029)

Figure 45. Europe Metal Foil SMD Resistors Sales Quantity Market Share by Country (2018-2029)

Figure 46. Europe Metal Foil SMD Resistors Consumption Value Market Share by Country (2018-2029)

Figure 47. Germany Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 48. France Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 49. United Kingdom Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 50. Russia Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 51. Italy Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 52. Asia-Pacific Metal Foil SMD Resistors Sales Quantity Market Share by Type (2018-2029)

Figure 53. Asia-Pacific Metal Foil SMD Resistors Sales Quantity Market Share by Application (2018-2029)

Figure 54. Asia-Pacific Metal Foil SMD Resistors Sales Quantity Market Share by Region (2018-2029)

Figure 55. Asia-Pacific Metal Foil SMD Resistors Consumption Value Market Share by Region (2018-2029)

Figure 56. China Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 57. Japan Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 58. Korea Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 59. India Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 60. Southeast Asia Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 61. Australia Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 62. South America Metal Foil SMD Resistors Sales Quantity Market Share by Type (2018-2029)



Figure 63. South America Metal Foil SMD Resistors Sales Quantity Market Share by Application (2018-2029)

Figure 64. South America Metal Foil SMD Resistors Sales Quantity Market Share by Country (2018-2029)

Figure 65. South America Metal Foil SMD Resistors Consumption Value Market Share by Country (2018-2029)

Figure 66. Brazil Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 67. Argentina Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 68. Middle East & Africa Metal Foil SMD Resistors Sales Quantity Market Share by Type (2018-2029)

Figure 69. Middle East & Africa Metal Foil SMD Resistors Sales Quantity Market Share by Application (2018-2029)

Figure 70. Middle East & Africa Metal Foil SMD Resistors Sales Quantity Market Share by Region (2018-2029)

Figure 71. Middle East & Africa Metal Foil SMD Resistors Consumption Value Market Share by Region (2018-2029)

Figure 72. Turkey Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 73. Egypt Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 74. Saudi Arabia Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 75. South Africa Metal Foil SMD Resistors Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 76. Metal Foil SMD Resistors Market Drivers

Figure 77. Metal Foil SMD Resistors Market Restraints

Figure 78. Metal Foil SMD Resistors Market Trends

Figure 79. Porters Five Forces Analysis

Figure 80. Manufacturing Cost Structure Analysis of Metal Foil SMD Resistors in 2022

Figure 81. Manufacturing Process Analysis of Metal Foil SMD Resistors

Figure 82. Metal Foil SMD Resistors Industrial Chain

Figure 83. Sales Quantity Channel: Direct to End-User vs Distributors

Figure 84. Direct Channel Pros & Cons

Figure 85. Indirect Channel Pros & Cons

Figure 86. Methodology

Figure 87. Research Process and Data Source



#### I would like to order

Product name: Global Metal Foil SMD Resistors Market 2023 by Manufacturers, Regions, Type and

Application, Forecast to 2029

Product link: <a href="https://marketpublishers.com/r/G86DBA43B0FBEN.html">https://marketpublishers.com/r/G86DBA43B0FBEN.html</a>

Price: US\$ 3,480.00 (Single User License / Electronic Delivery)

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

Service:

info@marketpublishers.com

# **Payment**

First name:

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <a href="https://marketpublishers.com/r/G86DBA43B0FBEN.html">https://marketpublishers.com/r/G86DBA43B0FBEN.html</a>

To pay by Wire Transfer, please, fill in your contact details in the form below:

Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <a href="https://marketpublishers.com/docs/terms.html">https://marketpublishers.com/docs/terms.html</a>

To place an order via fax simply print this form, fill in the information below and fax the completed form to  $+44\ 20\ 7900\ 3970$ 

