

# **Aircraft Electrical Wiring & Interconnection Systems Market Forecasts to 2034 - Global Analysis By Component (Wires & Cables, Connectors, Harnesses, Terminals & Splices and Protective Sleeving & Conduits), Aircraft Type, Installation Type, Application and By Geography**

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## **Abstracts**

According to Statistics MRC, the Global Aircraft Electrical Wiring & Interconnection Systems Market is accounted for \$3.7 billion in 2026 and is expected to reach \$6.6 billion by 2034 growing at a CAGR of 7.5% during the forecast period. Aircraft Electrical Wiring & Interconnection Systems include wiring harnesses, cables, connectors, terminals, and associated components responsible for transferring electrical power and signals across an aircraft. They enable critical functions such as avionics, navigation, communications, lighting, propulsion, and flight-control systems. The increasing electrification of aircraft and integration of sophisticated onboard electronics are supporting innovation in these systems. Industry participants are developing lighter wiring solutions, smaller connectors, improved electromagnetic interference shielding, and components capable of operating under demanding conditions. Reliability, safety, durability, weight reduction, and electrical performance remain essential considerations for modern aircraft electrical architectures.

According to the U.S. Federal Aviation Administration (FAA), the U.S. commercial aircraft fleet is forecast to increase from 7,387 aircraft in 2024 to 10,607 aircraft in 2045, representing an average annual growth rate of 1.7%. The FAA attributes this expansion to long-term growth in air-travel demand and air cargo, supporting continued requirements for aircraft components and systems.

## **Market Dynamics:**

## **Driver:**

### **Increasing aircraft electrification**

The growing electrification of aircraft is significantly supporting demand for electrical wiring and interconnection systems. Aircraft manufacturers are increasingly adopting electrical alternatives to conventional mechanical, hydraulic, and pneumatic technologies to enhance efficiency, reliability, and performance. Electrified flight controls, avionics, cabin equipment, and power management systems require extensive networks of cables, connectors, terminals, and wiring harnesses. As electrical architectures become more sophisticated, manufacturers increasingly require lightweight, durable, and high-performance interconnection components capable of handling greater electrical requirements while maintaining safety and dependable operation throughout aircraft service life.

## **Restraint:**

### **High system complexity and installation challenges**

Growing complexity in aircraft electrical systems can create challenges for the Aircraft Electrical Wiring & Interconnection Systems Market. Contemporary aircraft incorporate large and interconnected wiring networks that demand accurate installation, routing, inspection, and servicing. Increasing system integration can make these activities more technically challenging while raising labor requirements. Limited access to wiring areas, congestion, and shortages of specialized technical skills can further complicate installation and maintenance. Consequently, higher integration and servicing costs may discourage investment in sophisticated electrical interconnection solutions, especially where manufacturers and operators face strict cost-control requirements and operational constraints.

## **Opportunity:**

### **Adoption of lightweight wiring systems**

Increasing demand for lightweight electrical wiring solutions creates significant growth opportunities within the Aircraft Electrical Wiring & Interconnection Systems Market. Aerospace manufacturers are focused on reducing aircraft weight to enhance fuel economy, carrying capability, and operational efficiency. This trend encourages development of lighter cables, connectors, harnesses, and innovative materials without compromising electrical performance. Companies offering compact and weight-efficient interconnection technologies can capitalize on changing aircraft designs and greater electrification. Improved insulation materials, smaller components, and optimized wiring configurations can contribute to further weight savings in commercial, military, and

business aviation.

## **Threat:**

### **Supply chain disruptions and component shortages**

Disruptions across global supply networks and limited availability of specialized components can threaten the Aircraft Electrical Wiring & Interconnection Systems Market. Production relies on materials, connectors, terminals, shielding solutions, and related components obtained from multiple suppliers and regions. Geopolitical developments, logistics interruptions, material shortages, and restricted supplier capacity may disrupt procurement and manufacturing activities. Difficulty securing essential components can raise production expenses and cause schedule delays for aircraft programs. These challenges increase uncertainty for aerospace companies and suppliers while complicating inventory management and maintaining stable manufacturing operations across different aircraft platforms.

### **Covid-19 Impact:**

COVID-19 created substantial challenges for the Aircraft Electrical Wiring & Interconnection Systems Market as the aerospace industry experienced weaker aircraft demand, lower production, and reduced maintenance activity. Airlines postponed deliveries and canceled orders because of declining travel, affecting aircraft manufacturers and their component suppliers. Producers of wiring harnesses, cables, connectors, and interconnection components faced factory shutdowns, labor restrictions, transportation difficulties, and supply disruptions. As passenger traffic recovered and aircraft production gradually resumed, demand for electrical wiring and interconnection products began strengthening across the aviation sector.

### **The wires & cables segment is expected to be the largest during the forecast period**

The wires & cables segment is expected to account for the largest market share during the forecast period because they provide the primary routes for transmitting electrical power, signals, and data throughout aircraft. They support numerous functions, including avionics, navigation, communication, flight controls, propulsion, lighting, and cabin equipment. Increasing aircraft electrification and the integration of sophisticated onboard systems continue to create greater requirements for dependable wiring networks. In addition, maintenance, replacement, and modernization activities sustain demand for wiring components. Their widespread application and essential connectivity role make wires and cables a core element of modern aircraft electrical interconnection systems.

### **The power distribution systems segment is expected to have the highest CAGR during the forecast period**

Over the forecast period, the power distribution systems segment is predicted to witness the highest growth rate as aircraft become increasingly electrified and require greater electrical power capacity. Advanced avionics, electrically operated flight controls, propulsion-related technologies, and sophisticated cabin equipment are driving the need for improved electrical distribution networks. Manufacturers are implementing advanced distribution architectures to enhance power management, reliability, efficiency, and system performance. The expanding development of more-electric and next-generation aircraft is creating additional demand for innovative distribution technologies.

**Region with largest share:**

During the forecast period, the North America region is expected to hold the largest market share because of its mature aerospace industry and concentration of prominent aircraft and defense companies. The region has a well-established network of electrical system suppliers, aircraft manufacturers, research organizations, and maintenance providers. Increasing aircraft production, fleet modernization, avionics integration, and electrification are creating sustained demand for sophisticated wiring and interconnection technologies. In addition, stringent aviation safety standards and investments in advanced aircraft programs are encouraging the development and adoption of reliable, lightweight, and technologically advanced electrical systems throughout North America.

**Region with highest CAGR:**

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR as aviation activity and aerospace production continue expanding. Major countries including China, India, Japan, and South Korea are investing in aircraft manufacturing, defense platforms, fleet expansion, and MRO infrastructure. Increasing aircraft deliveries are stimulating requirements for cables, wiring harnesses, connectors, and related components. Furthermore, the growing implementation of advanced avionics, electrification, and More Electric Aircraft architectures is encouraging demand for lightweight, reliable, and technologically advanced electrical interconnection systems throughout the region.

## Key players in the market

Some of the key players in Aircraft Electrical Wiring & Interconnection Systems Market include Safran, GKN Aerospace, TE Connectivity, Amphenol Corporation, Collins Aerospace, Honeywell International Inc., Lat?co?re, Esterline Technologies, Ducommun Incorporated, Co-Operative Industries Aerospace & Defense (Cia&D), InterConnect Wiring, Elektro-Metall Export GmbH (EME), W.L. Gore & Associates, Carlisle Companies, Pic Wire & Cable, Radiall, Molex and ITT.

## Key Developments:

In July 2026, Honeywell Aerospace and Enigma Aerospace, Inc. announced a Memorandum of Understanding (MOU) to explore integrating advanced mission systems onto Enigma's Phoenix Series Unmanned Aircraft System (UAS) — a runway-independent, autonomous logistics aircraft designed to operate in GPS-denied, communications-degraded and otherwise contested environments.

In April 2026, Collins Aerospace has been awarded multiple contracts from Fort Worth-based Bell Textron to deliver five critical systems for the U.S. Army's MV-75 Future Long Range Assault Aircraft (FLRAA). Bell announced an April construction start for its new \$632 million factory in North Fort Worth, which will build parts for the FLRAA—a tilt-rotor aircraft that replaces the famed Black Hawk helicopter, flying twice as fast and twice as far while providing superior air assault and MEDEVAC capability.

## Components Covered:

Wires & Cables

Connectors

Harnesses

Terminals & Splices

Protective Sleeving & Conduits

## Aircraft Types Covered:

Commercial Aircraft

Military Aircraft

Regional Aircraft

Business Jets

Helicopters

## **Installation Types Covered:**

OEM (Original Equipment Manufacturer)

Aftermarket

## **Applications Covered:**

Power Distribution Systems

Avionics & Flight Control Systems

Lighting Systems

Communication Systems

Cabin Systems

## **Regions Covered:**

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of Africa

## What our report offers:

Market share assessments for the regional and country-level segments

Strategic recommendations for the new entrants

Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034

Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)

Strategic recommendations in key business segments based on the market estimations

Competitive landscaping mapping the key common trends

Company profiling with detailed strategies, financials, and recent developments

Supply chain trends mapping the latest technological advancements

## Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

### Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

### Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

## Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

## Contents

### **1 EXECUTIVE SUMMARY**

- 1.1 Market Snapshot and Key Highlights
- 1.2 Growth Drivers, Challenges, and Opportunities
- 1.3 Competitive Landscape Overview
- 1.4 Strategic Insights and Recommendations

### **2 RESEARCH FRAMEWORK**

- 2.1 Study Objectives and Scope
- 2.2 Stakeholder Analysis
- 2.3 Research Assumptions and Limitations
- 2.4 Research Methodology
  - 2.4.1 Data Collection (Primary and Secondary)
  - 2.4.2 Data Modeling and Estimation Techniques
  - 2.4.3 Data Validation and Triangulation
  - 2.4.4 Analytical and Forecasting Approach

### **3 MARKET DYNAMICS AND TREND ANALYSIS**

- 3.1 Market Definition and Structure
- 3.2 Key Market Drivers
- 3.3 Market Restraints and Challenges
- 3.4 Growth Opportunities and Investment Hotspots
- 3.5 Industry Threats and Risk Assessment
- 3.6 Technology and Innovation Landscape
- 3.7 Emerging and High-Growth Markets
- 3.8 Regulatory and Policy Environment
- 3.9 Impact of COVID-19 and Recovery Outlook

### **4 COMPETITIVE AND STRATEGIC ASSESSMENT**

- 4.1 Porter's Five Forces Analysis
  - 4.1.1 Supplier Bargaining Power
  - 4.1.2 Buyer Bargaining Power
  - 4.1.3 Threat of Substitutes
  - 4.1.4 Threat of New Entrants

- 4.1.5 Competitive Rivalry
- 4.2 Market Share Analysis of Key Players
- 4.3 Product Benchmarking and Performance Comparison

## **5 GLOBAL AIRCRAFT ELECTRICAL WIRING & INTERCONNECTION SYSTEMS MARKET, BY COMPONENT**

- 5.1 Wires & Cables
- 5.2 Connectors
- 5.3 Harnesses
- 5.4 Terminals & Splices
- 5.5 Protective Sleeving & Conduits

## **6 GLOBAL AIRCRAFT ELECTRICAL WIRING & INTERCONNECTION SYSTEMS MARKET, BY AIRCRAFT TYPE**

- 6.1 Commercial Aircraft
- 6.2 Military Aircraft
- 6.3 Regional Aircraft
- 6.4 Business Jets
- 6.5 Helicopters

## **7 GLOBAL AIRCRAFT ELECTRICAL WIRING & INTERCONNECTION SYSTEMS MARKET, BY INSTALLATION TYPE**

- 7.1 OEM (Original Equipment Manufacturer)
- 7.2 Aftermarket

## **8 GLOBAL AIRCRAFT ELECTRICAL WIRING & INTERCONNECTION SYSTEMS MARKET, BY APPLICATION**

- 8.1 Power Distribution Systems
- 8.2 Avionics & Flight Control Systems
- 8.3 Lighting Systems
- 8.4 Communication Systems
- 8.5 Cabin Systems

## **9 GLOBAL AIRCRAFT ELECTRICAL WIRING & INTERCONNECTION SYSTEMS MARKET, BY GEOGRAPHY**

- 9.1 North America
  - 9.1.1 United States
  - 9.1.2 Canada
  - 9.1.3 Mexico
- 9.2 Europe
  - 9.2.1 United Kingdom
  - 9.2.2 Germany
  - 9.2.3 France
  - 9.2.4 Italy
  - 9.2.5 Spain
  - 9.2.6 Netherlands
  - 9.2.7 Belgium
  - 9.2.8 Sweden
  - 9.2.9 Switzerland
  - 9.2.10 Poland
  - 9.2.11 Rest of Europe
- 9.3 Asia Pacific
  - 9.3.1 China
  - 9.3.2 Japan
  - 9.3.3 India
  - 9.3.4 South Korea
  - 9.3.5 Australia
  - 9.3.6 Indonesia
  - 9.3.7 Thailand
  - 9.3.8 Malaysia
  - 9.3.9 Singapore
  - 9.3.10 Vietnam
  - 9.3.11 Rest of Asia Pacific
- 9.4 South America
  - 9.4.1 Brazil
  - 9.4.2 Argentina
  - 9.4.3 Colombia
  - 9.4.4 Chile
  - 9.4.5 Peru
  - 9.4.6 Rest of South America
- 9.5 Rest of the World (RoW)
  - 9.5.1 Middle East
    - 9.5.1.1 Saudi Arabia

9.5.1.2 United Arab Emirates

9.5.1.3 Qatar

9.5.1.4 Israel

9.5.1.5 Rest of Middle East

9.5.2 Africa

9.5.2.1 South Africa

9.5.2.2 Egypt

9.5.2.3 Morocco

9.5.2.4 Rest of Africa

## **10 STRATEGIC MARKET INTELLIGENCE**

10.1 Industry Value Network and Supply Chain Assessment

10.2 White-Space and Opportunity Mapping

10.3 Product Evolution and Market Life Cycle Analysis

10.4 Channel, Distributor, and Go-to-Market Assessment

## **11 INDUSTRY DEVELOPMENTS AND STRATEGIC INITIATIVES**

11.1 Mergers and Acquisitions

11.2 Partnerships, Alliances, and Joint Ventures

11.3 New Product Launches and Certifications

11.4 Capacity Expansion and Investments

11.5 Other Strategic Initiatives

## **12 COMPANY PROFILES**

12.1 Safran

12.2 GKN Aerospace

12.3 TE Connectivity

12.4 Amphenol Corporation

12.5 Collins Aerospace

12.6 Honeywell International Inc.

12.7 Lat?co?re

12.8 Esterline Technologies

12.9 Ducommun Incorporated

12.10 Co-Operative Industries Aerospace & Defense (Cia&D)

12.11 InterConnect Wiring

12.12 Elektro-Metall Export GmbH (EME)

12.13 W.L. Gore & Associates

12.14 Carlisle Companies

12.15 Pic Wire & Cable

12.16 Radiall

12.17 Molex

12.18 ITT

## List Of Tables

### LIST OF TABLES

Table 1 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Region (2023-2034) (\$MN)

Table 2 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Component (2023-2034) (\$MN)

Table 3 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Wires & Cables (2023-2034) (\$MN)

Table 4 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Connectors (2023-2034) (\$MN)

Table 5 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Harnesses (2023-2034) (\$MN)

Table 6 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Terminals & Splices (2023-2034) (\$MN)

Table 7 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Protective Sleeving & Conduits (2023-2034) (\$MN)

Table 8 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Aircraft Type (2023-2034) (\$MN)

Table 9 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Commercial Aircraft (2023-2034) (\$MN)

Table 10 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Military Aircraft (2023-2034) (\$MN)

Table 11 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Regional Aircraft (2023-2034) (\$MN)

Table 12 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Business Jets (2023-2034) (\$MN)

Table 13 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Helicopters (2023-2034) (\$MN)

Table 14 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Installation Type (2023-2034) (\$MN)

Table 15 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By OEM (Original Equipment Manufacturer) (2023-2034) (\$MN)

Table 16 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Aftermarket (2023-2034) (\$MN)

Table 17 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Application (2023-2034) (\$MN)

Table 18 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By

Power Distribution Systems (2023-2034) (\$MN)

Table 19 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Avionics & Flight Control Systems (2023-2034) (\$MN)

Table 20 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Lighting Systems (2023-2034) (\$MN)

Table 21 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Communication Systems (2023-2034) (\$MN)

Table 22 Global Aircraft Electrical Wiring & Interconnection Systems Market Outlook, By Cabin Systems (2023-2034) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Rest of the World (RoW) Regions are also represented in the same manner as above.

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