+357 96 030922
info@marketpublishers.com

Software Defined Radio Market Forecasts to 2032 – Global Analysis By Component (Hardware, Software and Services), Type (General Purpose Radio, Terrestrial Trunked Radio (TETRA), Joint Tactical Radio System (JTRS), Cognitive Radio / Intelligent Radio and Other Types), Platform, Frequency Band, Application, End User and By Geography

https://marketpublishers.com/r/S4749EE7A727EN.html
Date: September 2025
Pages: 200
Price: US$ 4,150.00 (Single User License)
ID: S4749EE7A727EN

Abstracts

According to Stratistics MRC, the Global Software Defined Radio Market is accounted for $31.8 billion in 2025 and is expected to reach $56.0 billion by 2032 growing at a CAGR of 8.4% during the forecast period. Software Defined Radio (SDR) is a radio communication system where traditional hardware components, such as mixers, filters, and modulators, are replaced by software algorithms. Operating on general-purpose processors or FPGAs, SDRs offer flexibility to adapt to multiple frequencies and protocols without changing physical hardware. This technology enables dynamic reconfiguration, supports wideband signal processing, and is widely used in defense, telecommunications, and research applications for its scalability, interoperability, and cost-efficiency in managing evolving communication standards.

According to Research on Humanities and Social Sciences journal, over 85% of university students surveyed at Redeemer's University in Nigeria reported regular access to radio, with programming patterns significantly influencing their listening habits and attitudes toward content.

Market Dynamics:

Driver:

+357 96 030922
info@marketpublishers.com

Growing demand for flexible and adaptable communication systems

SDRs offer unparalleled flexibility by allowing users to reconfigure frequency bands and protocols through software updates, eliminating the need for hardware modifications. This adaptability is crucial for modern applications such as 5G, emergency response, and satellite communications. As global connectivity expands, SDRs are becoming essential for managing spectrum efficiently and supporting multi-standard interoperability.

Restraint:

Security vulnerabilities & rapid technological changes

The software-centric nature of SDRs makes them susceptible to hacking, signal jamming, and unauthorized access, especially in defense and critical infrastructure applications. Moreover, the fast pace of technological innovation demands frequent updates and skilled personnel to maintain compatibility with emerging standards. These factors increase operational costs and complicate deployment, particularly for organizations with limited technical resources.

Opportunity:

Integration with AI and machine learning

Artificial intelligence and machine learning are opening new frontiers for SDR technology by enabling intelligent spectrum management and adaptive signal processing. AI-powered SDRs can autonomously detect, classify, and optimize communication channels in real time, enhancing performance in congested or hostile environments. This capability is particularly valuable in cognitive radio networks and autonomous systems, where decision-making speed and accuracy are critical.

Threat:

Export regulations

Stringent export control policies and international trade restrictions pose a significant threat to the global SDR market. Many SDR components and technologies are classified as dual-use, limiting their distribution across borders due to national security

+357 96 030922
info@marketpublishers.com

concerns. These regulations can delay product launches, restrict market access, and complicate partnerships with foreign entities. Additionally, geopolitical tensions and shifting alliances may further constrain the flow of SDR technologies, especially in regions with heightened defense sensitivities.

Covid-19 Impact:

The COVID-19 pandemic had a multifaceted impact on the SDR market, disrupting supply chains while accelerating digital transformation. Initial lockdowns and manufacturing halts led to delays in hardware production and deployment, particularly in defense and aerospace sectors. However, the crisis also underscored the importance of resilient and remote communication systems, prompting increased investment in SDR technologies. Governments and enterprises prioritized flexible platforms capable of supporting virtual operations, emergency communications, and remote diagnostics.

The terrestrial trunked radio (TETRA) segment is expected to be the largest during the forecast period

The terrestrial trunked radio (TETRA) segment is expected to account for the largest market share during the forecast period due to its robust application in public safety, transportation, and military communications. TETRA systems offer secure, encrypted voice and data transmission, making them ideal for mission-critical operations. Their ability to support group calls, direct mode operations, and seamless handovers enhances operational efficiency in high-stakes environments.

The ultra-high frequency (UHF) segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the ultra-high frequency (UHF) segment is predicted to witness the highest growth rate owing to its widespread use in mobile communications, broadcasting, and tactical military operations. UHF bands offer superior signal penetration and range, making them suitable for urban and remote deployments. SDRs operating in the UHF spectrum can dynamically adapt to changing conditions, improving reliability and reducing interference.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share driven by substantial defense spending and technological leadership. The

+357 96 030922
info@marketpublishers.com

region boasts a mature SDR ecosystem supported by key players in aerospace, military, and telecom industries. Continuous investment in advanced communication systems, including network-centric warfare and homeland security, is propelling market growth. Additionally, the presence of cutting-edge research institutions and favorable regulatory frameworks fosters innovation and accelerates adoption across sectors.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR fueled by rapid infrastructure development, expanding defense budgets, and aggressive 5G rollouts. Countries such as China, India, and South Korea are investing heavily in modernizing communication networks and enhancing national security capabilities. The region's growing emphasis on smart manufacturing, IoT integration, and digital transformation is creating fertile ground for SDR deployment.

Key players in the market

Some of the key players in Software Defined Radio Market include L3Harris Technologies, Inc., RTX Corporation, Northrop Grumman Corporation, Thales Group, BAE Systems plc, General Dynamics Corporation, Leonardo S.p.A., Elbit Systems Ltd., Rohde & Schwarz GmbH & Co. KG, Viasat Inc., Collins Aerospace, Keysight Technologies, Inc., National Instruments Corporation, Rafael Advanced Defense Systems Ltd., Curtiss-Wright Corporation, BHE, Per Vices Corporation, Epiq Solutions, Ettus Research LLC, and Datasoft Corporation.

Key Developments:

In September 2025, Collins Aerospace was awarded a NATO contract to deliver its Electronic Warfare Planning and Battle Management (EWPBM) software. The system enhances electromagnetic warfare coordination and threat visualization across NATO forces.

In May 2025, National Instruments (NI) unveiled snap-in connectors for C Series modules and ultra-rugged FieldDAQ systems. These upgrades simplify setup and improve performance in extreme environments.

In March 2025, Keysight Technologies announced its intent to acquire Spirent Communications to expand network testing capabilities. The deal strengthens Keysight’s position in 5G and cybersecurity validation.

+357 96 030922
info@marketpublishers.com

Components Covered:

- Hardware
- Software
- Services

Types Covered:

- General Purpose Radio
- Terrestrial Trunked Radio (TETRA)
- Joint Tactical Radio System (JTRS)
- Cognitive Radio / Intelligent Radio
- Other Types

Platforms Covered:

- Airborne
- Naval
- Land
- Space

Frequency Bands Covered:

- High Frequency (HF)
- Very High Frequency (VHF)

+357 96 030922
info@marketpublishers.com

Ultra-High Frequency (UHF)

Super High Frequency (SHF)

Extremely High Frequency (EHF)

Applications Covered:

Military Communications

Homeland Security

Electronic Warfare

5G Networks

Cellular Base Stations

Transportation

IoT (Internet of Things)

Broadcasting

Other Applications

End Users Covered:

Aerospace & Defense

Telecommunication

Public Safety

Commercial

+357 96 030922
info@marketpublishers.com

- Other End Users

Regions Covered:

- North America
  - US
  - Canada
  - Mexico
- Europe
  - Germany
  - UK
  - Italy
  - France
  - Spain
  - Rest of Europe
- Asia Pacific
  - Japan
  - China
  - India
  - Australia
  - New Zealand

+357 96 030922
info@marketpublishers.com

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & 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 2024, 2025, 2026, 2028, and 2032
- 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

+357 96 030922
info@marketpublishers.com

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

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

5 GLOBAL SOFTWARE DEFINED RADIO MARKET, BY COMPONENT

6 GLOBAL SOFTWARE DEFINED RADIO MARKET, BY TYPE

7 GLOBAL SOFTWARE DEFINED RADIO MARKET, BY PLATFORM

8 GLOBAL SOFTWARE DEFINED RADIO MARKET, BY FREQUENCY BAND

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

12 KEY DEVELOPMENTS

13 COMPANY PROFILING

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Software Defined Radio Market Forecasts to 2032 – Global Analysis By Component (Hardware, Software and Services), Type (General Purpose Radio, Terrestrial Trunked Radio (TETRA), Joint Tactical Radio System (JTRS), Cognitive Radio / Intelligent Radio and Other Types), Platform, Frequency Band, Application, End User and By Geography

Product link: https://marketpublishers.com/r/S4749EE7A727EN.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/S4749EE7A727EN.html