

# **Digital Radar Market by Type (Active and Passive), Dimension (2D, 3D and 4D), Application (Safety, Security and Surveillance), Vertical (Automotive, Aerospace, Military and Defense) and Region - Global Forecast to 2029**

<https://marketpublishers.com/r/D847A8B25EA6EN.html>

Date: July 2024

Pages: 217

Price: US\$ 3,217.50 (Single User License)

ID: D847A8B25EA6EN

## **Abstracts**

The digital radar market is projected to grow from USD 5.9 billion in 2024 and is expected to reach USD 13.7 billion by 2029, growing at a CAGR of 18.2% from 2024 to 2029. The automobile market is largely driven by innovation, safety improvements as well as integration of sophisticated systems such as Advanced Driver Assistance Systems. For instance, object detection, tracking features and general situational understanding are significantly upgraded through the use of 4D digital radar technology.

“The 4D segment in the digital radar market to witness higher growth rate during the forecast period.”

The 4D segment to witness high growth rate in the digital radar market due to its superior capabilities and wide-ranging applications of the 4D radar segment. 4D radar adds time as the fourth dimension, which makes it more precise and gives a better spatial awareness when compared with traditional radar systems that only have range data, angles, and velocity. The technology of imaging at a high resolution makes it possible to detect, track, and classify objects in complex environments with greater success, which is especially important for self-driving cars, smart traffic management or advanced driver-assistance systems (ADAS).

“Market for security & surveillance in the digital radar market to hold the largest market share during the forecast period.”

The security & surveillance application holds the largest market share due to its vital function in military & defense strategies. In current military operations, modern digital radar systems are essential since they detect, track and identify targets from far off with adverse weather effects taken into consideration. A significant trend is how more technology is now being used to improve both quality and efficiency within digital radars. New solutions employing advanced technologies like digital beamforming, the GaN (Gallium Nitride) Semiconductors, and Frequency Modulated Continuous Wave (FMCW) Radar surpass traditional radar in terms of effectiveness or efficiency.

“The US is expected to hold the largest market size in the North American region during the forecast period.”

During the forecast period, the US is predicted to dominate in the North American region owing to the presence of major defense companies such as Lockheed Martin Corporation (US), and RTX (US). They have developed sophisticated radar technologies for a number of applications, such as military & defense, and aviation, among others. The US government makes large investments in the modernization and research of defense in order to increase the market for digital radar. Moreover, the US automotive industry is adding radar technology to boost safety features like accident avoidance systems and adaptive cruise control.

By Company Type: Tier 1 – 20%, Tier 2 – 35%, and Tier 3 – 45%

By Designation: C-level Executives – 20%, Directors – 30%, and Others – 50%

By Region: North America – 40%, Europe – 20%, Asia Pacific – 30%, and RoW – 10%

Prominent players profiled in this report include Lockheed Martin Corporation (US), Thales (France), Indra (Spain), Leonardo S.p.A. (Italy), Bharat Electronics Limited (India), Advanced Micro Devices, Inc. (US), Magna International Inc. (Canada), NXP Semiconductors (Netherlands), Saab AB (Sweden), and Uhnder (US). Israel Aerospace Industries (Israel), BAE Systems (UK), Elbit Systems Ltd. (Israel), Vayyar (Israel), Arbe (Israel), Einstein Radar Systems (US), Oculii (US), Spartan Radar, Inc. (US), Cubtek Inc. (Taiwan), ASELSAN A.S. (Turkiye), Teledyne FLIR LLC (US), Echodyne Corp (US) Bitsensing (South Korea), RFISec (Israel), Gapwaves AB (Sweden) are among a few other key companies in the digital radar market.

## Report Coverage

The report defines, describes, and forecasts the digital radar market based on type, dimension, application, vertical, and region. It provides detailed information regarding drivers, restraints, opportunities, and challenges influencing the growth of the digital radar market. It also analyzes competitive developments such as acquisitions, product launches, expansions, and actions carried out by the key players to grow in the market.

## Reasons to Buy This Report

The report will help the market leaders/new entrants in the market with information on the closest approximations of the revenue for the overall digital radar market and the subsegments. The report will help stakeholders understand the competitive landscape and gain more insight to position their business better and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the market and provides them with information on key drivers, restraints, opportunities, and challenges.

The report will provide insights into the following pointers:

Analysis of key drivers (Increased adoption of digital radar in autonomous vehicles) restraints (High development cost)

opportunities (Increasing adoption of digital radar in traffic monitoring), and challenges (Electromagnetic jamming and interface issue) of the digital radar market.

Product development /Innovation: Detailed insights on upcoming technologies, research & development activities, and new product launches in the digital radar market.

Market Development: Comprehensive information about lucrative markets; the report analyses the digital radar market across various regions.

Market Diversification: Exhaustive information about new products launched, untapped geographies, recent developments, and investments in the digital radar market.

Competitive Assessment: In-depth assessment of market share, growth strategies, and offering of leading players like Lockheed Martin Corporation

(US), Thales (France), Indra (Spain), Leonardo S.p.A. (Italy), Bharat Electronics Limited (India) among others in the digital radar market.

## Contents

### 1 INTRODUCTION

#### 1.1 STUDY OBJECTIVES

#### 1.2 MARKET DEFINITION

#### 1.3 STUDY SCOPE

##### 1.3.1 INCLUSIONS AND EXCLUSIONS

##### 1.3.2 MARKETS COVERED AND REGIONAL SCOPE

##### 1.3.3 YEARS CONSIDERED

#### 1.4 CURRENCY CONSIDERED

#### 1.5 UNITS CONSIDERED

#### 1.6 LIMITATIONS

#### 1.7 STAKEHOLDERS

#### 1.8 RECESSION IMPACT

### 2 RESEARCH METHODOLOGY

#### 2.1 RESEARCH APPROACH

##### 2.1.1 SECONDARY DATA

###### 2.1.1.1 List of major secondary sources

###### 2.1.1.2 Key data from secondary sources

##### 2.1.2 PRIMARY DATA

###### 2.1.2.1 List of key interview participants

###### 2.1.2.2 Breakdown of primary interviews

###### 2.1.2.3 Key data from primary sources

###### 2.1.2.4 Key industry insights

##### 2.1.3 SECONDARY AND PRIMARY RESEARCH

#### 2.2 MARKET SIZE ESTIMATION

##### 2.2.1 BOTTOM-UP APPROACH

2.2.1.1 Approach to estimate market size using bottom-up analysis  
(supply side)

2.2.1.2 Approach to estimate market size using bottom-up analysis  
(demand side)

##### 2.2.2 TOP-DOWN APPROACH

2.2.2.1 Approach to estimate market size using top-down analysis  
(demand side)

#### 2.3 DATA TRIANGULATION

#### 2.4 RESEARCH ASSUMPTIONS

## 2.5 RISK ANALYSIS

## 2.6 RESEARCH LIMITATIONS

# 3 EXECUTIVE SUMMARY

# 4 PREMIUM INSIGHTS

## 4.1 ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN DIGITAL RADAR MARKET

## 4.2 DIGITAL RADAR MARKET, BY TYPE

## 4.3 DIGITAL RADAR MARKET, BY DIMENSION

## 4.4 DIGITAL RADAR MARKET, BY APPLICATION

## 4.5 DIGITAL RADAR MARKET IN NORTH AMERICA, BY TYPE AND COUNTRY

## 4.6 DIGITAL RADAR MARKET, BY COUNTRY

# 5 MARKET OVERVIEW

## 5.1 INTRODUCTION

## 5.2 MARKET DYNAMICS

### 5.2.1 DRIVERS

5.2.1.1 Growing focus on improving safety and reliability of autonomous vehicles

5.2.1.2 Rising demand for reliable weather detection and monitoring solutions

5.2.1.3 Pressing need to identify potential threats and improve situational awareness  
in aerospace & defense sector

### 5.2.2 RESTRAINTS

5.2.2.1 High development cost

### 5.2.3 OPPORTUNITIES

5.2.3.1 Elevating requirement for sophisticated traffic management solutions

5.2.3.2 Increasing use of unmanned aerial vehicles (UAVs)

### 5.2.4 CHALLENGES

5.2.4.1 Electromagnetic jamming and interface issue

## 5.3 VALUE CHAIN ANALYSIS

## 5.4 ECOSYSTEM ANALYSIS

## 5.5 TECHNOLOGY ANALYSIS

### 5.5.1 KEY TECHNOLOGIES

5.5.1.1 Beamforming

5.5.1.2 Radar-on-Chip (RoC)

### 5.5.2 COMPLEMENTARY TECHNOLOGIES

5.5.2.1 Sensor fusion

### 5.5.3 ADJACENT TECHNOLOGIES

#### 5.5.3.1 Advanced antenna

### 5.6 TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESS

### 5.7 INVESTMENT AND FUNDING SCENARIO

### 5.8 PORTER'S FIVE FORCES ANALYSIS

#### 5.8.1 THREAT OF NEW ENTRANTS

#### 5.8.2 THREAT OF SUBSTITUTES

#### 5.8.3 BARGAINING POWER OF SUPPLIERS

#### 5.8.4 BARGAINING POWER OF BUYERS

#### 5.8.5 INTENSITY OF COMPETITIVE RIVALRY

### 5.9 KEY STAKEHOLDERS AND BUYING CRITERIA

#### 5.9.1 KEY STAKEHOLDERS IN BUYING PROCESS

#### 5.9.2 BUYING CRITERIA

### 5.10 CASE STUDY ANALYSIS

#### 5.10.1 OKLAHOMA UNIVERSITY DEPLOYS ADVANCED RADAR TO PREDICT FORMATION OF SEVERE WEATHER

#### 5.10.2 INDIAN ARMY AND NAVY ADOPTS BHARAT ELECTRONICS LIMITED'S RADAR SOLUTIONS FOR IMPROVED SITUATIONAL AWARENESS

#### 5.10.3 INDRA MODERNIZES RADAR NETWORK IN NEW ZEALAND TO IMPROVE AIR SECURITY AND REDUCE CARBON EMISSIONS

### 5.11 PRICING ANALYSIS

#### 5.11.1 AVERAGE SELLING PRICE TREND, BY DIMENSION

#### 5.11.2 AVERAGE SELLING PRICE TREND, BY REGION

### 5.12 PATENT ANALYSIS

### 5.13 TRADE ANALYSIS

#### 5.13.1 IMPORT SCENARIO (HS CODE 8526)

#### 5.13.2 EXPORT SCENARIO (HS CODE 8526)

### 5.14 REGULATORY LANDSCAPE

#### 5.14.1 REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

#### 5.14.2 REGULATORY STANDARDS

#### 5.14.3 GOVERNMENT REGULATIONS

### 5.15 KEY CONFERENCES AND EVENTS, 2024–2025

## 6 DIGITAL RADAR MARKET, BY TYPE

### 6.1 INTRODUCTION

### 6.2 ACTIVE

#### 6.2.1 RISING NEED FOR ENHANCED SECURITY AND SURVEILLANCE TO FUEL MARKET GROWTH

## 6.3 PASSIVE

6.3.1 INCREASING FOCUS ON STEALTH AND NON-INTERFERENCE  
TECHNOLOGIES IN MILITARY APPLICATIONS TO FUEL DEMAND

## 7 DIGITAL RADAR MARKET, BY DIMENSION

### 7.1 INTRODUCTION

#### 7.2 2D & 3D

##### 7.2.1 2D

7.2.1.1 Surging demand for defense equipment for improved target detection to accelerate market growth

##### 7.2.2 3D

7.2.2.1 Rising demand from aerospace & defense industry to drive market

#### 7.3 4D

7.3.1 INCREASING AWARENESS OF PASSENGER AND VEHICLE SAFETY  
BENEFITS TO FUEL DEMAND

## 8 DIGITAL RADAR MARKET, BY APPLICATION

### 8.1 INTRODUCTION

#### 8.2 SAFETY

8.2.1 EXCEPTIONAL RELIABILITY, UNPARALLELED PERFORMANCE, AND  
CUTTING-EDGE DIGITAL INNOVATIONS TO FUEL DEMAND

#### 8.3 SECURITY & SURVEILLANCE

8.3.1 INCREASING GOVERNMENT AND PRIVATE SECTOR INVESTMENTS TO  
SUPPORT MARKET GROWTH

#### 8.4 OTHER APPLICATIONS

## 9 DIGITAL RADAR MARKET, BY VERTICAL

### 9.1 INTRODUCTION

#### 9.2 AUTOMOTIVE

9.2.1 CHANGING LIFESTYLES AND CONSUMER PREFERENCES TO FUEL  
DEMAND

#### 9.3 AEROSPACE

9.3.1 RISING DEMAND FOR DIGITAL RADAR IN AEROSPACE APPLICATIONS TO  
PROPEL MARKET

#### 9.4 MILITARY & DEFENSE

9.4.1 INCREASING DEMAND FOR HIGH-END RADAR SOLUTIONS TO FUEL



## MARKET GROWTH

### 9.5 OTHER VERTICALS

## 10 DIGITAL RADAR MARKET, BY REGION

### 10.1 INTRODUCTION

### 10.2 NORTH AMERICA

#### 10.2.1 NORTH AMERICA: RECESSION IMPACT

#### 10.2.2 US

10.2.2.1 Growing investments by defense department in security applications to support market growth

#### 10.2.3 CANADA

10.2.3.1 Rising focus on development of precision-guided defense systems to fuel market growth

#### 10.2.4 MEXICO

10.2.4.1 Pressing need to improve national security measures to boost demand

### 10.3 EUROPE

#### 10.3.1 EUROPE: RECESSION IMPACT

#### 10.3.2 GERMANY

10.3.2.1 Growing focus on enhancing situational awareness and national security to create opportunities

#### 10.3.3 UK

10.3.3.1 Increasing government funding in digitalizing military sector to boost demand

#### 10.3.4 FRANCE

10.3.4.1 Elevating demand and spending on advanced surveillance systems to contribute to market growth

#### 10.3.5 REST OF EUROPE

### 10.4 ASIA PACIFIC

#### 10.4.1 ASIA PACIFIC: RECESSION IMPACT

#### 10.4.2 CHINA

10.4.2.1 Collaboration with domestic and international players to modernize defense infrastructure to create opportunities

#### 10.4.3 JAPAN

10.4.3.1 Strong research and development ecosystem to propel market growth

#### 10.4.4 SOUTH KOREA

10.4.4.1 Thriving aerospace industry to provide lucrative opportunities

#### 10.4.5 REST OF ASIA PACIFIC

### 10.5 ROW

#### 10.5.1 ROW: RECESSION IMPACT

#### 10.5.2 GCC

#### 10.5.3 REST OF MIDDLE EAST & AFRICA

#### 10.5.4 SOUTH AMERICA

10.5.4.1 Increasing investment in modern military equipment to drive market growth

## 11 COMPETITIVE LANDSCAPE

### 11.1 OVERVIEW

### 11.2 REVENUE ANALYSIS, 2021–2023

### 11.3 MARKET SHARE ANALYSIS, 2023

### 11.4 COMPANY VALUATION AND FINANCIAL METRICS

### 11.5 BRAND/PRODUCT COMPARISON

### 11.6 COMPANY EVALUATION MATRIX: KEY PLAYERS, 2023

#### 11.6.1 STARS

#### 11.6.2 EMERGING LEADERS

#### 11.6.3 PERVASIVE PLAYERS

#### 11.6.4 PARTICIPANTS

#### 11.6.5 COMPANY FOOTPRINT: KEY PLAYERS, 2023

##### 11.6.5.1 Company footprint

##### 11.6.5.2 Vertical footprint

##### 11.6.5.3 Type footprint

##### 11.6.5.4 Dimension footprint

##### 11.6.5.5 Application footprint

##### 11.6.5.6 Region footprint

### 11.7 COMPANY EVALUATION MATRIX: STARTUPS/SMES, 2023

#### 11.7.1 PROGRESSIVE COMPANIES

#### 11.7.2 RESPONSIVE COMPANIES

#### 11.7.3 DYNAMIC COMPANIES

#### 11.7.4 STARTING BLOCKS

#### 11.7.5 COMPETITIVE BENCHMARKING: SMES, 2023

##### 11.7.5.1 Detailed list of startups/SMEs

##### 11.7.5.2 Competitive benchmarking of key startups/SMEs

### 11.8 COMPETITIVE SCENARIO AND TRENDS

#### 11.8.1 PRODUCT LAUNCHES

#### 11.8.2 DEALS

## 12 COMPANY PROFILES

## 12.1 KEY PLAYERS

### 12.1.1 LOCKHEED MARTIN CORPORATION

- 12.1.1.1 Business overview
- 12.1.1.2 Products/Solutions/Services offered
- 12.1.1.3 Recent developments
  - 12.1.1.3.1 Product launches/Developments
  - 12.1.1.3.2 Deals
  - 12.1.1.3.3 Other developments
- 12.1.1.4 MnM view
  - 12.1.1.4.1 Key strengths
  - 12.1.1.4.2 Strategic choices
  - 12.1.1.4.3 Weaknesses and competitive threats

### 12.1.2 THALES

- 12.1.2.1 Business overview
- 12.1.2.2 Products/Solutions/Services offered
- 12.1.2.3 Recent developments
  - 12.1.2.3.1 Deals
  - 12.1.2.3.2 Other developments
- 12.1.2.4 MnM view
  - 12.1.2.4.1 Key strengths
  - 12.1.2.4.2 Strategic choices
  - 12.1.2.4.3 Weaknesses and competitive threats

### 12.1.3 INDRA

- 12.1.3.1 Business overview
- 12.1.3.2 Products/Solutions/Services offered
- 12.1.3.3 Recent developments
  - 12.1.3.3.1 Product launches/Developments
  - 12.1.3.3.2 Deals
  - 12.1.3.3.3 Other developments
- 12.1.3.4 MnM view
  - 12.1.3.4.1 Key strengths
  - 12.1.3.4.2 Strategic choices
  - 12.1.3.4.3 Weaknesses and competitive threats

### 12.1.4 LEONARDO S.P.A.

- 12.1.4.1 Business overview
- 12.1.4.2 Products/Solutions/Services offered
- 12.1.4.3 Recent developments
  - 12.1.4.3.1 Product launches/Developments
- 12.1.4.4 MnM view

- 12.1.4.4.1 Key strengths
- 12.1.4.4.2 Strategic choices
- 12.1.4.4.3 Weaknesses and competitive threats
- 12.1.5 BHARAT ELECTRONICS LIMITED
  - 12.1.5.1 Business overview
  - 12.1.5.2 Products/Solutions/Services offered
  - 12.1.5.3 Recent developments
    - 12.1.5.3.1 Product launches/Developments
    - 12.1.5.3.2 Deals
  - 12.1.5.4 MnM view
    - 12.1.5.4.1 Key strengths
    - 12.1.5.4.2 Strategic choices
    - 12.1.5.4.3 Weaknesses and competitive threats
- 12.1.6 ADVANCED MICRO DEVICES, INC.
  - 12.1.6.1 Business overview
  - 12.1.6.2 Products/Solutions/Services offered
  - 12.1.6.3 Recent developments
    - 12.1.6.3.1 Product launches/Developments
    - 12.1.6.3.2 Deals
- 12.1.7 MAGNA INTERNATIONAL INC
  - 12.1.7.1 Business overview
  - 12.1.7.2 Products/Solutions/Services offered
  - 12.1.7.3 Recent developments
    - 12.1.7.3.1 Product launches/Developments
    - 12.1.7.3.2 Deals
- 12.1.8 NXP SEMICONDUCTORS
  - 12.1.8.1 Business overview
  - 12.1.8.2 Products/Solutions/Services offered
  - 12.1.8.3 Recent developments
    - 12.1.8.3.1 Product launches/Developments
    - 12.1.8.3.2 Deals
- 12.1.9 SAAB AB
  - 12.1.9.1 Business overview
  - 12.1.9.2 Products/Solutions/Services offered
  - 12.1.9.3 Recent developments
    - 12.1.9.3.1 Deals
    - 12.1.9.3.2 Other developments
- 12.1.10 UHNDER
  - 12.1.10.1 Business overview

12.1.10.2 Products/Solutions/Services offered

12.1.10.3 Recent developments

12.1.10.3.1 Product launches/Developments

12.1.10.3.2 Deals

## 12.2 OTHER COMPANIES

12.2.1 ISRAEL AEROSPACE INDUSTRIES

12.2.2 BAE SYSTEMS

12.2.3 ELBIT SYSTEMS LTD.

12.2.4 VAYYAR

12.2.5 ARBE

12.2.6 AINSTEIN RADAR SYSTEMS

12.2.7 OCULII

12.2.8 SPARTAN RADAR, INC.

12.2.9 CUBTEK INC.

12.2.10 ASELSAN A.?.

12.2.11 TELEDYNE FLIR LLC

12.2.12 ECHODYNE CORP

12.2.13 BITSENSING

12.2.14 RFISEE

12.2.15 GAPWAVES AB

## 13 APPENDIX

13.1 DISCUSSION GUIDE

13.2 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL

13.3 CUSTOMIZATION OPTIONS

13.4 RELATED REPORTS

13.5 AUTHOR DETAILS

## I would like to order

Product name: Digital Radar Market by Type (Active and Passive), Dimension (2D, 3D and 4D), Application (Safety, Security and Surveillance), Vertical (Automotive, Aerospace, Military and Defense) and Region - Global Forecast to 2029

Product link: <https://marketpublishers.com/r/D847A8B25EA6EN.html>

Price: US\$ 3,217.50 (Single User License / Electronic Delivery)

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

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/D847A8B25EA6EN.html>

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

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

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

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