

Global Charge-coupled Devices (CCDs) Supply, Demand and Key Producers, 2026-2032

<https://marketpublishers.com/r/G66059E89B8EEN.html>

Date: May 2026

Pages: 110

Price: US\$ 4,480.00 (Single User License)

ID: G66059E89B8EEN

Abstracts

The global Charge-coupled Devices (CCDs) market size is expected to reach \$ 10211 million by 2032, rising at a market growth of 6.3% CAGR during the forecast period (2026-2032).

Charge-Coupled Device (CCD) is a solid-state semiconductor image sensor designed to convert incident light into electrical signals for high-precision imaging and detection. The device is typically fabricated on silicon substrates and appears as a small rectangular integrated circuit chip packaged in ceramic or plastic housings with external pins or bonding pads for electronic integration. Structurally, a CCD consists of a two-dimensional array of photosensitive pixels, charge transfer registers, output amplifiers, and clock control circuits. Each pixel acts as a potential well that collects photo-generated charge when exposed to light. The operating principle of a CCD is based on the controlled transfer of electrical charge between adjacent potential wells within the semiconductor. When photons strike the silicon surface, electron-hole pairs are generated, and the electrons are accumulated in the pixel wells as charge packets. Under the control of clock signals, these charges are sequentially transferred across the pixel array toward a readout register and finally to an output amplifier, where they are converted into voltage signals and subsequently digitized to form image data. CCD devices are commonly categorized into Full-Frame CCD, Frame-Transfer CCD, and Interline Transfer CCD, with advanced variants such as Electron-Multiplying CCD (EMCCD) and Back-Illuminated CCD for enhanced sensitivity. Due to their high sensitivity, low noise, excellent dynamic range, and uniform image quality, CCD sensors are widely used in astronomy, scientific instrumentation, medical imaging, industrial machine vision, spectroscopy, security systems, and high-end digital imaging equipment.

From an industry analysis perspective, the market for Charge-Coupled Devices (CCDs) still presents certain development opportunities in the coming years, with its core driving factors mainly originating from sustained demand in high-end scientific instruments, advanced industrial inspection systems, and specialized imaging applications. In the fields of astronomical observation, space exploration, and particle physics experiments, CCDs continue to maintain irreplaceable technological advantages due to their low noise, high quantum efficiency, and excellent dynamic range. These applications require extremely high imaging quality and signal stability, allowing CCDs to maintain stable long-term demand in the scientific detector market. In addition, in medical imaging, life science research, and spectroscopic analysis equipment, high-precision optoelectronic detection still relies on CCD devices to provide high signal-to-noise ratio and stable image acquisition performance. In particular, in microscopy imaging, biological fluorescence detection, and high-sensitivity analytical instruments, CCD technology continues to demonstrate significant advantages. Meanwhile, the rapid development of industrial automation and intelligent manufacturing has increased the demand for high-precision imaging and low-noise signal processing in advanced machine vision systems, supporting CCD adoption in semiconductor inspection, precision manufacturing inspection, and scientific-grade machine vision equipment. Furthermore, aerospace remote sensing, deep-space exploration, and national security monitoring applications require high reliability and radiation resistance, providing additional stable opportunities for CCD technologies. With the advancement of technologies such as advanced packaging, back-illuminated architectures, and electron-multiplying CCDs, the technological value of CCD devices in high-end niche markets remains strong, collectively driving the continued development of this industry. However, from the perspective of industry competition and technological substitution trends, the CCD market also faces notable challenges and risks. The most significant challenge comes from the rapid advancement of CMOS image sensor technology. In recent years, CMOS sensors have achieved significant improvements in power consumption, readout speed, integration capability, and manufacturing cost, enabling them to replace CCDs in large-scale markets such as consumer electronics, security surveillance, and automotive vision systems. Compared with CCDs, CMOS sensors can integrate more signal-processing circuitry on a single chip, thereby reducing system complexity and production costs. As a result, the market share of CCD technology in large-scale commercial applications has continued to decline. In addition, CCD manufacturing processes are relatively complex and require strict wafer fabrication control and high production yields, resulting in higher production costs than most CMOS devices. This places pressure on manufacturers' long-term profitability. Globally, the number of companies specializing in CCD manufacturing has gradually decreased, and several major image sensor manufacturers have reduced investments or exited the

CCD business, increasing supply chain concentration and slowing technological iteration in the industry. At the same time, the market for scientific-grade imaging equipment remains relatively limited in scale, with growth largely dependent on specific industry projects or research funding cycles. Consequently, the overall market expansion rate is moderate. In the future, the development of the CCD industry will rely more on technological advantages in high-end niche applications rather than expansion in large-scale consumer markets. From the perspective of downstream demand trends, the CCD market is gradually concentrating on high-end professional applications, with demand structures becoming increasingly specialized and performance-oriented. In astronomy, space science, and particle detection, demand for ultra-sensitive and extremely low-noise imaging systems continues to grow, especially with the increasing deployment of large astronomical telescopes, space observation platforms, and deep-space exploration missions, which sustain demand for high-performance CCD detectors. In the life sciences and medical research sectors, high-end microscopy systems, gene sequencing instruments, and biological detection equipment still require high-quality imaging technologies capable of detecting extremely weak optical signals, maintaining CCD's importance in scientific-grade life science instrumentation. Furthermore, industrial inspection and semiconductor manufacturing equipment continue to demand high-resolution imaging systems. In wafer inspection, precision optical inspection, and materials analysis equipment, CCD devices remain competitive due to their superior image uniformity and signal stability. Looking forward, downstream markets will place increasing emphasis on image quality, signal stability, and system reliability, which will help reinforce CCD applications in scientific instruments and high-end industrial equipment. In addition, emerging technologies such as back-illuminated CCDs and electron-multiplying CCDs will further enhance imaging performance under extremely low-light conditions, expanding applications in quantum research, deep-space exploration, and advanced optical measurement. Overall, the CCD market is expected to evolve toward a specialized high-end market structure centered on scientific research, medical instrumentation, industrial inspection, and aerospace applications.

This report studies the global Charge-coupled Devices (CCDs) production, demand, key manufacturers, and key regions.

This report is a detailed and comprehensive analysis of the world market for Charge-coupled Devices (CCDs) and provides market size (US\$ million) and Year-over-Year (YoY) Growth, considering 2025 as the base year. This report explores demand trends and competition, as well as details the characteristics of Charge-coupled Devices (CCDs) that contribute to its increasing demand across many markets.

Highlights and key features of the study

Global Charge-coupled Devices (CCDs) total production and demand, 2021-2032, (K Units)

Global Charge-coupled Devices (CCDs) total production value, 2021-2032, (USD Million)

Global Charge-coupled Devices (CCDs) production by region & country, production, value, CAGR, 2021-2032, (USD Million) & (K Units), (based on production site)

Global Charge-coupled Devices (CCDs) consumption by region & country, CAGR, 2021-2032 & (K Units)

U.S. VS China: Charge-coupled Devices (CCDs) domestic production, consumption, key domestic manufacturers and share

Global Charge-coupled Devices (CCDs) production by manufacturer, production, price, value and market share 2021-2026, (USD Million) & (K Units)

Global Charge-coupled Devices (CCDs) production by Type, production, value, CAGR, 2021-2032, (USD Million) & (K Units)

Global Charge-coupled Devices (CCDs) production by Application, production, value, CAGR, 2021-2032, (USD Million) & (K Units)

This report profiles key players in the global Charge-coupled Devices (CCDs) market based on the following parameters - company overview, production, value, price, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include Sony Group Corporation, Sharp Corporation, Panasonic, Hamamatsu Photonics, Teledyne Technologies Incorporated, onsemi, etc.

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals.

Stakeholders would have ease in decision-making through various strategy matrices used in analyzing the World Charge-coupled Devices (CCDs) market

Detailed Segmentation:

Each section contains quantitative market data including market by value (US\$ Millions), volume (production, consumption) & (K Units) and average price (USD/Unit) by manufacturer, by Type, and by Application. Data is given for the years 2021-2032 by year with 2025 as the base year, 2026 as the estimate year, and 2027-2032 as the forecast year.

Global Charge-coupled Devices (CCDs) Market, By Region:

United States

China

Europe

Japan

South Korea

ASEAN

India

Rest of World

Global Charge-coupled Devices (CCDs) Market, Segmentation by Type:

Line CCD

Interline CCD

Full-Frame CCD

Frame-Transfer CCD

Global Charge-coupled Devices (CCDs) Market, Segmentation by Illumination Structure:

Front-Illuminated CCD

Back-Illuminated CCD

Global Charge-coupled Devices (CCDs) Market, Segmentation by Charge Readout

Technology:

Standard CCD

Electron-Multiplying CCD (EMCCD)

Global Charge-coupled Devices (CCDs) Market, Segmentation by Sensor Array Configuration:

Linear CCD Sensor

Area CCD Sensor

Global Charge-coupled Devices (CCDs) Market, Segmentation by Application:

Digital Cameras

Optical Scanners

Other

Companies Profiled:

Sony Group Corporation

Sharp Corporation

Panasonic

Hamamatsu Photonics

Teledyne Technologies Incorporated

onsemi

Key Questions Answered:

1. How big is the global Charge-coupled Devices (CCDs) market?
2. What is the demand of the global Charge-coupled Devices (CCDs) market?
3. What is the year over year growth of the global Charge-coupled Devices (CCDs) market?
4. What is the production and production value of the global Charge-coupled Devices (CCDs) market?
5. Who are the key producers in the global Charge-coupled Devices (CCDs) market?
6. What are the growth factors driving the market demand?

Contents

1 SUPPLY SUMMARY

- 1.1 Charge-coupled Devices (CCDs) Introduction
- 1.2 World Charge-coupled Devices (CCDs) Supply & Forecast
 - 1.2.1 World Charge-coupled Devices (CCDs) Production Value (2021 & 2025 & 2032)
 - 1.2.2 World Charge-coupled Devices (CCDs) Production (2021-2032)
 - 1.2.3 World Charge-coupled Devices (CCDs) Pricing Trends (2021-2032)
- 1.3 World Charge-coupled Devices (CCDs) Production by Region (Based on Production Site)
 - 1.3.1 World Charge-coupled Devices (CCDs) Production Value by Region (2021-2032)
 - 1.3.2 World Charge-coupled Devices (CCDs) Production by Region (2021-2032)
 - 1.3.3 World Charge-coupled Devices (CCDs) Average Price by Region (2021-2032)
 - 1.3.4 North America Charge-coupled Devices (CCDs) Production (2021-2032)
 - 1.3.5 Europe Charge-coupled Devices (CCDs) Production (2021-2032)
 - 1.3.6 China Charge-coupled Devices (CCDs) Production (2021-2032)
 - 1.3.7 Japan Charge-coupled Devices (CCDs) Production (2021-2032)
 - 1.3.8 Netherlands Charge-coupled Devices (CCDs) Production (2021-2032)
- 1.4 Market Drivers, Restraints and Trends
 - 1.4.1 Charge-coupled Devices (CCDs) Market Drivers
 - 1.4.2 Factors Affecting Demand
 - 1.4.3 Charge-coupled Devices (CCDs) Major Market Trends

2 DEMAND SUMMARY

- 2.1 World Charge-coupled Devices (CCDs) Demand (2021-2032)
- 2.2 World Charge-coupled Devices (CCDs) Consumption by Region
 - 2.2.1 World Charge-coupled Devices (CCDs) Consumption by Region (2021-2026)
 - 2.2.2 World Charge-coupled Devices (CCDs) Consumption Forecast by Region (2027-2032)
- 2.3 United States Charge-coupled Devices (CCDs) Consumption (2021-2032)
- 2.4 China Charge-coupled Devices (CCDs) Consumption (2021-2032)
- 2.5 Europe Charge-coupled Devices (CCDs) Consumption (2021-2032)
- 2.6 Japan Charge-coupled Devices (CCDs) Consumption (2021-2032)
- 2.7 South Korea Charge-coupled Devices (CCDs) Consumption (2021-2032)
- 2.8 ASEAN Charge-coupled Devices (CCDs) Consumption (2021-2032)
- 2.9 India Charge-coupled Devices (CCDs) Consumption (2021-2032)

3 WORLD MANUFACTURERS COMPETITIVE ANALYSIS

- 3.1 World Charge-coupled Devices (CCDs) Production Value by Manufacturer (2021-2026)
- 3.2 World Charge-coupled Devices (CCDs) Production by Manufacturer (2021-2026)
- 3.3 World Charge-coupled Devices (CCDs) Average Price by Manufacturer (2021-2026)
- 3.4 Charge-coupled Devices (CCDs) Company Evaluation Quadrant
- 3.5 Industry Rank and Concentration Rate (CR)
 - 3.5.1 Global Charge-coupled Devices (CCDs) Industry Rank of Major Manufacturers
 - 3.5.2 Global Concentration Ratios (CR4) for Charge-coupled Devices (CCDs) in 2025
 - 3.5.3 Global Concentration Ratios (CR8) for Charge-coupled Devices (CCDs) in 2025
- 3.6 Charge-coupled Devices (CCDs) Market: Overall Company Footprint Analysis
 - 3.6.1 Charge-coupled Devices (CCDs) Market: Region Footprint
 - 3.6.2 Charge-coupled Devices (CCDs) Market: Company Product Type Footprint
 - 3.6.3 Charge-coupled Devices (CCDs) Market: Company Product Application Footprint
- 3.7 Competitive Environment
 - 3.7.1 Historical Structure of the Industry
 - 3.7.2 Barriers of Market Entry
 - 3.7.3 Factors of Competition
- 3.8 New Entrant and Capacity Expansion Plans
- 3.9 Mergers, Acquisition, Agreements, and Collaborations

4 UNITED STATES VS CHINA VS REST OF THE WORLD

- 4.1 United States VS China: Charge-coupled Devices (CCDs) Production Value Comparison
 - 4.1.1 United States VS China: Charge-coupled Devices (CCDs) Production Value Comparison (2021 & 2025 & 2032)
 - 4.1.2 United States VS China: Charge-coupled Devices (CCDs) Production Value Market Share Comparison (2021 & 2025 & 2032)
- 4.2 United States VS China: Charge-coupled Devices (CCDs) Production Comparison
 - 4.2.1 United States VS China: Charge-coupled Devices (CCDs) Production Comparison (2021 & 2025 & 2032)
 - 4.2.2 United States VS China: Charge-coupled Devices (CCDs) Production Market Share Comparison (2021 & 2025 & 2032)
- 4.3 United States VS China: Charge-coupled Devices (CCDs) Consumption Comparison
 - 4.3.1 United States VS China: Charge-coupled Devices (CCDs) Consumption Comparison (2021 & 2025 & 2032)

4.3.2 United States VS China: Charge-coupled Devices (CCDs) Consumption Market Share Comparison (2021 & 2025 & 2032)

4.4 United States Based Charge-coupled Devices (CCDs) Manufacturers and Market Share, 2021-2026

4.4.1 United States Based Charge-coupled Devices (CCDs) Manufacturers, Headquarters and Production Site (States, Country)

4.4.2 United States Based Manufacturers Charge-coupled Devices (CCDs) Production Value (2021-2026)

4.4.3 United States Based Manufacturers Charge-coupled Devices (CCDs) Production (2021-2026)

4.5 China Based Charge-coupled Devices (CCDs) Manufacturers and Market Share

4.5.1 China Based Charge-coupled Devices (CCDs) Manufacturers, Headquarters and Production Site (Province, Country)

4.5.2 China Based Manufacturers Charge-coupled Devices (CCDs) Production Value (2021-2026)

4.5.3 China Based Manufacturers Charge-coupled Devices (CCDs) Production (2021-2026)

4.6 Rest of World Based Charge-coupled Devices (CCDs) Manufacturers and Market Share, 2021-2026

4.6.1 Rest of World Based Charge-coupled Devices (CCDs) Manufacturers, Headquarters and Production Site (State, Country)

4.6.2 Rest of World Based Manufacturers Charge-coupled Devices (CCDs) Production Value (2021-2026)

4.6.3 Rest of World Based Manufacturers Charge-coupled Devices (CCDs) Production (2021-2026)

5 MARKET ANALYSIS BY TYPE

5.1 World Charge-coupled Devices (CCDs) Market Size Overview by Type: 2021 VS 2025 VS 2032

5.2 Segment Introduction by Type

5.2.1 Line CCD

5.2.2 Interline CCD

5.2.3 Full-Frame CCD

5.2.4 Frame-Transfer CCD

5.3 Market Segment by Type

5.3.1 World Charge-coupled Devices (CCDs) Production by Type (2021-2032)

5.3.2 World Charge-coupled Devices (CCDs) Production Value by Type (2021-2032)

5.3.3 World Charge-coupled Devices (CCDs) Average Price by Type (2021-2032)

6 MARKET ANALYSIS BY ILLUMINATION STRUCTURE

6.1 World Charge-coupled Devices (CCDs) Market Size Overview by Illumination Structure: 2021 VS 2025 VS 2032

6.2 Segment Introduction by Illumination Structure

6.2.1 Front-Illuminated CCD

6.2.2 Back-Illuminated CCD

6.3 Market Segment by Illumination Structure

6.3.1 World Charge-coupled Devices (CCDs) Production by Illumination Structure (2021-2032)

6.3.2 World Charge-coupled Devices (CCDs) Production Value by Illumination Structure (2021-2032)

6.3.3 World Charge-coupled Devices (CCDs) Average Price by Illumination Structure (2021-2032)

7 MARKET ANALYSIS BY CHARGE READOUT TECHNOLOGY

7.1 World Charge-coupled Devices (CCDs) Market Size Overview by Charge Readout Technology: 2021 VS 2025 VS 2032

7.2 Segment Introduction by Charge Readout Technology

7.2.1 Standard CCD

7.2.2 Electron-Multiplying CCD (EMCCD)

7.3 Market Segment by Charge Readout Technology

7.3.1 World Charge-coupled Devices (CCDs) Production by Charge Readout Technology (2021-2032)

7.3.2 World Charge-coupled Devices (CCDs) Production Value by Charge Readout Technology (2021-2032)

7.3.3 World Charge-coupled Devices (CCDs) Average Price by Charge Readout Technology (2021-2032)

8 MARKET ANALYSIS BY SENSOR ARRAY CONFIGURATION

8.1 World Charge-coupled Devices (CCDs) Market Size Overview by Sensor Array Configuration: 2021 VS 2025 VS 2032

8.2 Segment Introduction by Sensor Array Configuration

8.2.1 Linear CCD Sensor

8.2.2 Area CCD Sensor

8.3 Market Segment by Sensor Array Configuration

8.3.1 World Charge-coupled Devices (CCDs) Production by Sensor Array Configuration (2021-2032)

8.3.2 World Charge-coupled Devices (CCDs) Production Value by Sensor Array Configuration (2021-2032)

8.3.3 World Charge-coupled Devices (CCDs) Average Price by Sensor Array Configuration (2021-2032)

9 MARKET ANALYSIS BY APPLICATION

9.1 World Charge-coupled Devices (CCDs) Market Size Overview by Application: 2021 VS 2025 VS 2032

9.2 Segment Introduction by Application

9.2.1 Digital Cameras

9.2.2 Optical Scanners

9.2.3 Other

9.3 Market Segment by Application

9.3.1 World Charge-coupled Devices (CCDs) Production by Application (2021-2032)

9.3.2 World Charge-coupled Devices (CCDs) Production Value by Application (2021-2032)

9.3.3 World Charge-coupled Devices (CCDs) Average Price by Application (2021-2032)

10 COMPANY PROFILES

10.1 Sony Group Corporation

10.1.1 Sony Group Corporation Details

10.1.2 Sony Group Corporation Major Business

10.1.3 Sony Group Corporation Charge-coupled Devices (CCDs) Product and Services

10.1.4 Sony Group Corporation Charge-coupled Devices (CCDs) Production, Price, Value, Gross Margin and Market Share (2021-2026)

10.1.5 Sony Group Corporation Recent Developments/Updates

10.1.6 Sony Group Corporation Competitive Strengths & Weaknesses

10.2 Sharp Corporation

10.2.1 Sharp Corporation Details

10.2.2 Sharp Corporation Major Business

10.2.3 Sharp Corporation Charge-coupled Devices (CCDs) Product and Services

10.2.4 Sharp Corporation Charge-coupled Devices (CCDs) Production, Price, Value, Gross Margin and Market Share (2021-2026)

- 10.2.5 Sharp Corporation Recent Developments/Updates
- 10.2.6 Sharp Corporation Competitive Strengths & Weaknesses
- 10.3 Panasonic
 - 10.3.1 Panasonic Details
 - 10.3.2 Panasonic Major Business
 - 10.3.3 Panasonic Charge-coupled Devices (CCDs) Product and Services
 - 10.3.4 Panasonic Charge-coupled Devices (CCDs) Production, Price, Value, Gross Margin and Market Share (2021-2026)
 - 10.3.5 Panasonic Recent Developments/Updates
 - 10.3.6 Panasonic Competitive Strengths & Weaknesses
- 10.4 Hamamatsu Photonics
 - 10.4.1 Hamamatsu Photonics Details
 - 10.4.2 Hamamatsu Photonics Major Business
 - 10.4.3 Hamamatsu Photonics Charge-coupled Devices (CCDs) Product and Services
 - 10.4.4 Hamamatsu Photonics Charge-coupled Devices (CCDs) Production, Price, Value, Gross Margin and Market Share (2021-2026)
 - 10.4.5 Hamamatsu Photonics Recent Developments/Updates
 - 10.4.6 Hamamatsu Photonics Competitive Strengths & Weaknesses
- 10.5 Teledyne Technologies Incorporated
 - 10.5.1 Teledyne Technologies Incorporated Details
 - 10.5.2 Teledyne Technologies Incorporated Major Business
 - 10.5.3 Teledyne Technologies Incorporated Charge-coupled Devices (CCDs) Product and Services
 - 10.5.4 Teledyne Technologies Incorporated Charge-coupled Devices (CCDs) Production, Price, Value, Gross Margin and Market Share (2021-2026)
 - 10.5.5 Teledyne Technologies Incorporated Recent Developments/Updates
 - 10.5.6 Teledyne Technologies Incorporated Competitive Strengths & Weaknesses
- 10.6 onsemi
 - 10.6.1 onsemi Details
 - 10.6.2 onsemi Major Business
 - 10.6.3 onsemi Charge-coupled Devices (CCDs) Product and Services
 - 10.6.4 onsemi Charge-coupled Devices (CCDs) Production, Price, Value, Gross Margin and Market Share (2021-2026)
 - 10.6.5 onsemi Recent Developments/Updates
 - 10.6.6 onsemi Competitive Strengths & Weaknesses

11 INDUSTRY CHAIN ANALYSIS

11.1 Charge-coupled Devices (CCDs) Industry Chain

11.2 Charge-coupled Devices (CCDs) Upstream Analysis

11.2.1 Charge-coupled Devices (CCDs) Core Raw Materials

11.2.2 Main Manufacturers of Charge-coupled Devices (CCDs) Core Raw Materials

11.3 Midstream Analysis

11.4 Downstream Analysis

11.5 Charge-coupled Devices (CCDs) Production Mode

11.6 Charge-coupled Devices (CCDs) Procurement Model

11.7 Charge-coupled Devices (CCDs) Industry Sales Model and Sales Channels

11.7.1 Charge-coupled Devices (CCDs) Sales Model

11.7.2 Charge-coupled Devices (CCDs) Typical Distributors

12 RESEARCH FINDINGS AND CONCLUSION

13 APPENDIX

13.1 Methodology

13.2 Research Process and Data Source

13.3 Disclaimer

List Of Tables

LIST OF TABLES

Table 1. World Charge-coupled Devices (CCDs) Production Value by Region (2021, 2025 and 2032) & (USD Million)

Table 2. World Charge-coupled Devices (CCDs) Production Value by Region (2021-2026) & (USD Million)

Table 3. World Charge-coupled Devices (CCDs) Production Value by Region (2027-2032) & (USD Million)

Table 4. World Charge-coupled Devices (CCDs) Production Value Market Share by Region (2021-2026)

Table 5. World Charge-coupled Devices (CCDs) Production Value Market Share by Region (2027-2032)

Table 6. World Charge-coupled Devices (CCDs) Production by Region (2021-2026) & (K Units)

Table 7. World Charge-coupled Devices (CCDs) Production by Region (2027-2032) & (K Units)

Table 8. World Charge-coupled Devices (CCDs) Production Market Share by Region (2021-2026)

Table 9. World Charge-coupled Devices (CCDs) Production Market Share by Region (2027-2032)

Table 10. World Charge-coupled Devices (CCDs) Average Price by Region (2021-2026) & (USD/Unit)

Table 11. World Charge-coupled Devices (CCDs) Average Price by Region (2027-2032) & (USD/Unit)

Table 12. Charge-coupled Devices (CCDs) Major Market Trends

Table 13. World Charge-coupled Devices (CCDs) Consumption Growth Rate Forecast by Region (2021 & 2025 & 2032) & (K Units)

Table 14. World Charge-coupled Devices (CCDs) Consumption by Region (2021-2026) & (K Units)

Table 15. World Charge-coupled Devices (CCDs) Consumption Forecast by Region (2027-2032) & (K Units)

Table 16. World Charge-coupled Devices (CCDs) Production Value by Manufacturer (2021-2026) & (USD Million)

Table 17. Production Value Market Share of Key Charge-coupled Devices (CCDs) Producers in 2025

Table 18. World Charge-coupled Devices (CCDs) Production by Manufacturer (2021-2026) & (K Units)

Table 19. Production Market Share of Key Charge-coupled Devices (CCDs) Producers in 2025

Table 20. World Charge-coupled Devices (CCDs) Average Price by Manufacturer (2021-2026) & (USD/Unit)

Table 21. Global Charge-coupled Devices (CCDs) Company Evaluation Quadrant

Table 22. World Charge-coupled Devices (CCDs) Industry Rank of Major Manufacturers, Based on Production Value in 2025

Table 23. Head Office and Charge-coupled Devices (CCDs) Production Site of Key Manufacturer

Table 24. Charge-coupled Devices (CCDs) Market: Company Product Type Footprint

Table 25. Charge-coupled Devices (CCDs) Market: Company Product Application Footprint

Table 26. Charge-coupled Devices (CCDs) Competitive Factors

Table 27. Charge-coupled Devices (CCDs) New Entrant and Capacity Expansion Plans

Table 28. Charge-coupled Devices (CCDs) Mergers & Acquisitions Activity

Table 29. United States VS China Charge-coupled Devices (CCDs) Production Value Comparison, (2021 & 2025 & 2032) & (USD Million)

Table 30. United States VS China Charge-coupled Devices (CCDs) Production Comparison, (2021 & 2025 & 2032) & (K Units)

Table 31. United States VS China Charge-coupled Devices (CCDs) Consumption Comparison, (2021 & 2025 & 2032) & (K Units)

Table 32. United States Based Charge-coupled Devices (CCDs) Manufacturers, Headquarters and Production Site (States, Country)

Table 33. United States Based Manufacturers Charge-coupled Devices (CCDs) Production Value, (2021-2026) & (USD Million)

Table 34. United States Based Manufacturers Charge-coupled Devices (CCDs) Production Value Market Share (2021-2026)

Table 35. United States Based Manufacturers Charge-coupled Devices (CCDs) Production (2021-2026) & (K Units)

Table 36. United States Based Manufacturers Charge-coupled Devices (CCDs) Production Market Share (2021-2026)

Table 37. China Based Charge-coupled Devices (CCDs) Manufacturers, Headquarters and Production Site (Province, Country)

Table 38. China Based Manufacturers Charge-coupled Devices (CCDs) Production Value, (2021-2026) & (USD Million)

Table 39. China Based Manufacturers Charge-coupled Devices (CCDs) Production Value Market Share (2021-2026)

Table 40. China Based Manufacturers Charge-coupled Devices (CCDs) Production, (2021-2026) & (K Units)

Table 41. China Based Manufacturers Charge-coupled Devices (CCDs) Production Market Share (2021-2026)

Table 42. Rest of World Based Charge-coupled Devices (CCDs) Manufacturers, Headquarters and Production Site (State, Country)

Table 43. Rest of World Based Manufacturers Charge-coupled Devices (CCDs) Production Value, (2021-2026) & (USD Million)

Table 44. Rest of World Based Manufacturers Charge-coupled Devices (CCDs) Production Value Market Share (2021-2026)

Table 45. Rest of World Based Manufacturers Charge-coupled Devices (CCDs) Production, (2021-2026) & (K Units)

Table 46. Rest of World Based Manufacturers Charge-coupled Devices (CCDs) Production Market Share (2021-2026)

Table 47. World Charge-coupled Devices (CCDs) Production Value by Type, (USD Million), 2021 & 2025 & 2032

Table 48. World Charge-coupled Devices (CCDs) Production by Type (2021-2026) & (K Units)

Table 49. World Charge-coupled Devices (CCDs) Production by Type (2027-2032) & (K Units)

Table 50. World Charge-coupled Devices (CCDs) Production Value by Type (2021-2026) & (USD Million)

Table 51. World Charge-coupled Devices (CCDs) Production Value by Type (2027-2032) & (USD Million)

Table 52. World Charge-coupled Devices (CCDs) Average Price by Type (2021-2026) & (USD/Unit)

Table 53. World Charge-coupled Devices (CCDs) Average Price by Type (2027-2032) & (USD/Unit)

Table 54. World Charge-coupled Devices (CCDs) Production Value by Illumination Structure, (USD Million), 2021 & 2025 & 2032

Table 55. World Charge-coupled Devices (CCDs) Production by Illumination Structure (2021-2026) & (K Units)

Table 56. World Charge-coupled Devices (CCDs) Production by Illumination Structure (2027-2032) & (K Units)

Table 57. World Charge-coupled Devices (CCDs) Production Value by Illumination Structure (2021-2026) & (USD Million)

Table 58. World Charge-coupled Devices (CCDs) Production Value by Illumination Structure (2027-2032) & (USD Million)

Table 59. World Charge-coupled Devices (CCDs) Average Price by Illumination Structure (2021-2026) & (USD/Unit)

Table 60. World Charge-coupled Devices (CCDs) Average Price by Illumination

Structure (2027-2032) & (USD/Unit)

Table 61. World Charge-coupled Devices (CCDs) Production Value by Charge Readout Technology, (USD Million), 2021 & 2025 & 2032

Table 62. World Charge-coupled Devices (CCDs) Production by Charge Readout Technology (2021-2026) & (K Units)

Table 63. World Charge-coupled Devices (CCDs) Production by Charge Readout Technology (2027-2032) & (K Units)

Table 64. World Charge-coupled Devices (CCDs) Production Value by Charge Readout Technology (2021-2026) & (USD Million)

Table 65. World Charge-coupled Devices (CCDs) Production Value by Charge Readout Technology (2027-2032) & (USD Million)

Table 66. World Charge-coupled Devices (CCDs) Average Price by Charge Readout Technology (2021-2026) & (USD/Unit)

Table 67. World Charge-coupled Devices (CCDs) Average Price by Charge Readout Technology (2027-2032) & (USD/Unit)

Table 68. World Charge-coupled Devices (CCDs) Production Value by Sensor Array Configuration, (USD Million), 2021 & 2025 & 2032

Table 69. World Charge-coupled Devices (CCDs) Production by Sensor Array Configuration (2021-2026) & (K Units)

Table 70. World Charge-coupled Devices (CCDs) Production by Sensor Array Configuration (2027-2032) & (K Units)

Table 71. World Charge-coupled Devices (CCDs) Production Value by Sensor Array Configuration (2021-2026) & (USD Million)

Table 72. World Charge-coupled Devices (CCDs) Production Value by Sensor Array Configuration (2027-2032) & (USD Million)

Table 73. World Charge-coupled Devices (CCDs) Average Price by Sensor Array Configuration (2021-2026) & (USD/Unit)

Table 74. World Charge-coupled Devices (CCDs) Average Price by Sensor Array Configuration (2027-2032) & (USD/Unit)

Table 75. World Charge-coupled Devices (CCDs) Production Value by Application, (USD Million), 2021 & 2025 & 2032

Table 76. World Charge-coupled Devices (CCDs) Production by Application (2021-2026) & (K Units)

Table 77. World Charge-coupled Devices (CCDs) Production by Application (2027-2032) & (K Units)

Table 78. World Charge-coupled Devices (CCDs) Production Value by Application (2021-2026) & (USD Million)

Table 79. World Charge-coupled Devices (CCDs) Production Value by Application (2027-2032) & (USD Million)

Table 80. World Charge-coupled Devices (CCDs) Average Price by Application (2021-2026) & (USD/Unit)

Table 81. World Charge-coupled Devices (CCDs) Average Price by Application (2027-2032) & (USD/Unit)

Table 82. Sony Group Corporation Basic Information, Manufacturing Base and Competitors

Table 83. Sony Group Corporation Major Business

Table 84. Sony Group Corporation Charge-coupled Devices (CCDs) Product and Services

Table 85. Sony Group Corporation Charge-coupled Devices (CCDs) Production (K Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 86. Sony Group Corporation Recent Developments/Updates

Table 87. Sony Group Corporation Competitive Strengths & Weaknesses

Table 88. Sharp Corporation Basic Information, Manufacturing Base and Competitors

Table 89. Sharp Corporation Major Business

Table 90. Sharp Corporation Charge-coupled Devices (CCDs) Product and Services

Table 91. Sharp Corporation Charge-coupled Devices (CCDs) Production (K Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 92. Sharp Corporation Recent Developments/Updates

Table 93. Sharp Corporation Competitive Strengths & Weaknesses

Table 94. Panasonic Basic Information, Manufacturing Base and Competitors

Table 95. Panasonic Major Business

Table 96. Panasonic Charge-coupled Devices (CCDs) Product and Services

Table 97. Panasonic Charge-coupled Devices (CCDs) Production (K Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 98. Panasonic Recent Developments/Updates

Table 99. Panasonic Competitive Strengths & Weaknesses

Table 100. Hamamatsu Photonics Basic Information, Manufacturing Base and Competitors

Table 101. Hamamatsu Photonics Major Business

Table 102. Hamamatsu Photonics Charge-coupled Devices (CCDs) Product and Services

Table 103. Hamamatsu Photonics Charge-coupled Devices (CCDs) Production (K Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 104. Hamamatsu Photonics Recent Developments/Updates

Table 105. Hamamatsu Photonics Competitive Strengths & Weaknesses

Table 106. Teledyne Technologies Incorporated Basic Information, Manufacturing Base and Competitors

Table 107. Teledyne Technologies Incorporated Major Business

Table 108. Teledyne Technologies Incorporated Charge-coupled Devices (CCDs) Product and Services

Table 109. Teledyne Technologies Incorporated Charge-coupled Devices (CCDs) Production (K Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 110. Teledyne Technologies Incorporated Recent Developments/Updates

Table 111. Teledyne Technologies Incorporated Competitive Strengths & Weaknesses

Table 112. onsemi Basic Information, Manufacturing Base and Competitors

Table 113. onsemi Major Business

Table 114. onsemi Charge-coupled Devices (CCDs) Product and Services

Table 115. onsemi Charge-coupled Devices (CCDs) Production (K Units), Price (USD/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 116. onsemi Recent Developments/Updates

Table 117. onsemi Competitive Strengths & Weaknesses

Table 118. Global Key Players of Charge-coupled Devices (CCDs) Upstream (Raw Materials)

Table 119. Global Charge-coupled Devices (CCDs) Typical Customers

Table 120. Charge-coupled Devices (CCDs) Typical Distributors

List Of Figures

LIST OF FIGURES

Figure 1. Charge-coupled Devices (CCDs) Picture

Figure 2. World Charge-coupled Devices (CCDs) Production Value: 2021 & 2025 & 2032, (USD Million)

Figure 3. World Charge-coupled Devices (CCDs) Production Value and Forecast (2021-2032) & (USD Million)

Figure 4. World Charge-coupled Devices (CCDs) Production (2021-2032) & (K Units)

Figure 5. World Charge-coupled Devices (CCDs) Average Price (2021-2032) & (USD/Unit)

Figure 6. World Charge-coupled Devices (CCDs) Production Value Market Share by Region (2021-2032)

Figure 7. World Charge-coupled Devices (CCDs) Production Market Share by Region (2021-2032)

Figure 8. North America Charge-coupled Devices (CCDs) Production (2021-2032) & (K Units)

Figure 9. Europe Charge-coupled Devices (CCDs) Production (2021-2032) & (K Units)

Figure 10. China Charge-coupled Devices (CCDs) Production (2021-2032) & (K Units)

Figure 11. Japan Charge-coupled Devices (CCDs) Production (2021-2032) & (K Units)

Figure 12. Netherlands Charge-coupled Devices (CCDs) Production (2021-2032) & (K Units)

Figure 13. Charge-coupled Devices (CCDs) Market Drivers

Figure 14. Factors Affecting Demand

Figure 15. World Charge-coupled Devices (CCDs) Consumption (2021-2032) & (K Units)

Figure 16. World Charge-coupled Devices (CCDs) Consumption Market Share by Region (2021-2032)

Figure 17. United States Charge-coupled Devices (CCDs) Consumption (2021-2032) & (K Units)

Figure 18. China Charge-coupled Devices (CCDs) Consumption (2021-2032) & (K Units)

Figure 19. Europe Charge-coupled Devices (CCDs) Consumption (2021-2032) & (K Units)

Figure 20. Japan Charge-coupled Devices (CCDs) Consumption (2021-2032) & (K Units)

Figure 21. South Korea Charge-coupled Devices (CCDs) Consumption (2021-2032) & (K Units)

Figure 22. ASEAN Charge-coupled Devices (CCDs) Consumption (2021-2032) & (K Units)

Figure 23. India Charge-coupled Devices (CCDs) Consumption (2021-2032) & (K Units)

Figure 24. Producer Shipments of Charge-coupled Devices (CCDs) by Manufacturer Revenue (\$MM) and Market Share (%): 2025

Figure 25. Global Four-firm Concentration Ratios (CR4) for Charge-coupled Devices (CCDs) Markets in 2025

Figure 26. Global Four-firm Concentration Ratios (CR8) for Charge-coupled Devices (CCDs) Markets in 2025

Figure 27. United States VS China: Charge-coupled Devices (CCDs) Production Value Market Share Comparison (2021 & 2025 & 2032)

Figure 28. United States VS China: Charge-coupled Devices (CCDs) Production Market Share Comparison (2021 & 2025 & 2032)

Figure 29. United States VS China: Charge-coupled Devices (CCDs) Consumption Market Share Comparison (2021 & 2025 & 2032)

Figure 30. United States Based Manufacturers Charge-coupled Devices (CCDs) Production Market Share 2025

Figure 31. China Based Manufacturers Charge-coupled Devices (CCDs) Production Market Share 2025

Figure 32. Rest of World Based Manufacturers Charge-coupled Devices (CCDs) Production Market Share 2025

Figure 33. World Charge-coupled Devices (CCDs) Production Value by Type, (USD Million), 2021 & 2025 & 2032

Figure 34. World Charge-coupled Devices (CCDs) Production Value Market Share by Type in 2025

Figure 35. Line CCD

Figure 36. Interline CCD

Figure 37. Full-Frame CCD

Figure 38. Frame-Transfer CCD

Figure 39. World Charge-coupled Devices (CCDs) Production Market Share by Type (2021-2032)

Figure 40. World Charge-coupled Devices (CCDs) Production Value Market Share by Type (2021-2032)

Figure 41. World Charge-coupled Devices (CCDs) Average Price by Type (2021-2032) & (USD/Unit)

Figure 42. World Charge-coupled Devices (CCDs) Production Value by Illumination Structure, (USD Million), 2021 & 2025 & 2032

Figure 43. World Charge-coupled Devices (CCDs) Production Value Market Share by Illumination Structure in 2025

Figure 44. Front-Illuminated CCD

Figure 45. Back-Illuminated CCD

Figure 46. World Charge-coupled Devices (CCDs) Production Market Share by Illumination Structure (2021-2032)

Figure 47. World Charge-coupled Devices (CCDs) Production Value Market Share by Illumination Structure (2021-2032)

Figure 48. World Charge-coupled Devices (CCDs) Average Price by Illumination Structure (2021-2032) & (USD/Unit)

Figure 49. World Charge-coupled Devices (CCDs) Production Value by Charge Readout Technology, (USD Million), 2021 & 2025 & 2032

Figure 50. World Charge-coupled Devices (CCDs) Production Value Market Share by Charge Readout Technology in 2025

Figure 51. Standard CCD

Figure 52. Electron-Multiplying CCD (EMCCD)

Figure 53. World Charge-coupled Devices (CCDs) Production Market Share by Charge Readout Technology (2021-2032)

Figure 54. World Charge-coupled Devices (CCDs) Production Value Market Share by Charge Readout Technology (2021-2032)

Figure 55. World Charge-coupled Devices (CCDs) Average Price by Charge Readout Technology (2021-2032) & (USD/Unit)

Figure 56. World Charge-coupled Devices (CCDs) Production Value by Sensor Array Configuration, (USD Million), 2021 & 2025 & 2032

Figure 57. World Charge-coupled Devices (CCDs) Production Value Market Share by Sensor Array Configuration in 2025

Figure 58. Linear CCD Sensor

Figure 59. Area CCD Sensor

Figure 60. World Charge-coupled Devices (CCDs) Production Market Share by Sensor Array Configuration (2021-2032)

Figure 61. World Charge-coupled Devices (CCDs) Production Value Market Share by Sensor Array Configuration (2021-2032)

Figure 62. World Charge-coupled Devices (CCDs) Average Price by Sensor Array Configuration (2021-2032) & (USD/Unit)

Figure 63. World Charge-coupled Devices (CCDs) Production Value by Application, (USD Million), 2021 & 2025 & 2032

Figure 64. World Charge-coupled Devices (CCDs) Production Value Market Share by Application in 2025

Figure 65. Digital Cameras

Figure 66. Optical Scanners

Figure 67. Other

Figure 68. World Charge-coupled Devices (CCDs) Production Market Share by Application (2021-2032)

Figure 69. World Charge-coupled Devices (CCDs) Production Value Market Share by Application (2021-2032)

Figure 70. World Charge-coupled Devices (CCDs) Average Price by Application (2021-2032) & (USD/Unit)

Figure 71. Charge-coupled Devices (CCDs) Industry Chain

Figure 72. Charge-coupled Devices (CCDs) Procurement Model

Figure 73. Charge-coupled Devices (CCDs) Sales Model

Figure 74. Charge-coupled Devices (CCDs) Sales Channels, Direct Sales, and Distribution

Figure 75. Methodology

Figure 76. Research Process and Data Source

I would like to order

Product name: Global Charge-coupled Devices (CCDs) Supply, Demand and Key Producers, 2026-2032

Product link: <https://marketpublishers.com/r/G66059E89B8EEN.html>

Price: US\$ 4,480.00 (Single User License / Electronic Delivery)

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

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/G66059E89B8EEN.html>