

Technology CAD Software Market Size, Share & Trends Analysis Report By Application Type (CMOS, Image Sensors, Solar Cells, Analog/RF Sensors), By Region, And Segment Forecasts, 2020 - 2027

<https://marketpublishers.com/r/TCE0B02F0ED8EN.html>

Date: October 2020

Pages: 108

Price: US\$ 4,950.00 (Single User License)

ID: TCE0B02F0ED8EN

Abstracts

This report can be delivered to the clients within 72 Business Hours

Technology CAD Software Market Growth & Trends

The global technology CAD software market size is expected to reach USD 315.4 million by 2027, expanding at a CAGR of 9.5%, according to a study conducted by Grand View Research, Inc. Technology Computer-Aided Design (TCAD) software solves physical, fundamental, and partial differential equations such as transport and diffusion equations of a semiconductor device's layer or wafer system. This has significantly increased the predictive accuracy of the simulation software. Rising advancements in the electronics industry have encouraged semiconductor manufacturers to focus on technology computer-aided design software to speed up the R&D process, since TCAD not only ensures reduced testing time but is also cost-effective.

The consumer electronics industry is witnessing the growing usage of advanced electronics components. Rising demand for smart devices would particularly encourage IC manufacturers to adopt technology computer-aided design software. As such, consumer electronics OEMs partner with some of the leading System-on-Chip (SoC) and IC manufacturers, including Intel Corporation; NXP Semiconductors; Texas Instruments Incorporated; and Qualcomm Technologies, Inc. in order to enhance the quality of their respective smart products. For instance, in August 2018, Intel Corporation selected Synopsys, Inc. as its primary software provider. The overall

situation bodes well for market growth.

The rising adoption of various connected devices, wearable devices, home automation devices, and other smart devices, which support enhanced machine-to-human interaction, is also expected to drive the market over the forecast period. Connected device manufacturers are aggressively collaborating with technology computer-aided design software developers to launch innovative smart devices that can support machine-to-human interaction. Connected devices, such as smart speakers, are increasingly being integrated with Automatic Speech Recognition (ASR) to make them capable of receiving, understanding, and interpreting voice commands. The convenience associated with using voice commands to establish communication between machines and humans is creating opportunities for connected device manufacturers to introduce smart devices that can respond to voice commands.

The advent of the Internet of Things (IoT) has transformed the way organizations can communicate and manage their businesses and industrial procedures. IoT is being increasingly adopted for connected cars, connected toys, home security systems, and smart speakers. Nevertheless, given that connected devices are always vulnerable to intrusion threats, the way devices are connected and secured would be crucial toward rolling out a secure IoT ecosystem and driving IoT adoption. This, in turn, is expected to create potential opportunities for the market over the forecast period.

Technology CAD Software Market Report Highlights

The analog/RF devices segment is projected to witness a CAGR of over 10.0% over the forecast period. Analog/RF devices offer benefits such as high energy transfer efficiency, short processing time, accurate process control, and reduced equipment failure. It is heavily used in consumer electronic devices such as tablets, set-up boxes, television, laptops, smartphones, and several wireless communication devices. The proliferation of such consumer electronic devices is anticipated to propel segment growth

In Asia Pacific, the market is expected to register a healthy CAGR over the forecast period. Growing population, rising disposable income, and rapid urbanization are driving the demand for consumer electronics and the proliferation of smartphones. China accounted for the largest revenue share in 2019, driven by a large number of manufacturing companies present in the country

Market players are focusing on expanding their business by launching various partnership programs. For instance, in April 2020, Silvaco, Inc. stated that Trixell, a manufacturer of X-ray flat-panel digital detectors, has adopted Silvaco's TCAD-based parasitic extraction flow for developing its next-gen displays for ensuring that all manufacturing requirements are met.

Contents

CHAPTER 1. METHODOLOGY AND SCOPE

- 1.1. Research Methodology
- 1.2. Research Scope & Assumptions
- 1.3. List of Data Sources
- 1.4. List of Abbreviations

CHAPTER 2. EXECUTIVE SUMMARY

- 2.1. Technology Computer Aided Design (TCAD) Software Market - Industry Snapshot & Key Buying Criteria, 2016 - 2027
- 2.2. Technology Computer Aided Design (TCAD) Software Market, 2016-2027

CHAPTER 3. TECHNOLOGY COMPUTER AIDED DESIGN (TCAD) SOFTWARE INDUSTRY OUTLOOK

- 3.1. Market Segmentation
- 3.2. Value Chain Analysis
- 3.3. Market Dynamics
 - 3.3.1. Market driver analysis
 - 3.3.2. Market restraint/challenge analysis
 - 3.3.3. Market opportunity analysis
- 3.4. Penetration & Growth Prospects Mapping
- 3.5. Industry Analysis - Porter's Five Force Analysis
- 3.6. PEST Analysis

CHAPTER 4. TECHNOLOGY COMPUTER AIDED DESIGN (TCAD) SOFTWARE MARKET: APPLICATION TYPE OUTLOOK

- 4.1. Technology Computer Aided Design (TCAD) Software Market Estimates & Forecasts, By Vehicle Type, 2019 & 2027 (USD Million)
- 4.2. CMOS
 - 4.2.1. Market estimates and forecasts, 2016 - 2027 (USD Million)
 - 4.2.2. Market estimates and forecasts, by region, 2016 - 2027 (USD Million)
- 4.3. Image Sensors
 - 4.3.1. Market estimates and forecasts, 2016 - 2027 (USD Million)
 - 4.3.2. Market estimates and forecasts, by region, 2016-2027 (USD Million)

4.4. Solar Cells

4.4.1. Market estimates and forecasts, 2016 - 2027 (USD Million)

4.4.2. Market estimates and forecasts, by region, 2016 - 2027 (USD Million)

4.5. Analog/RF Devices

4.5.1. Market estimates and forecasts, 2016 - 2027 (USD Million)

4.5.2. Market estimates and forecasts, by region, 2016 - 2027 (USD Million)

CHAPTER 5. TECHNOLOGY COMPUTER AIDED DESIGN (TCAD) SOFTWARE MARKET: REGIONAL OUTLOOK

5.1. Technology Computer Aided Design (TCAD) Software Market Estimates & Forecasts, By Region, 2019 & 2027 (USD Million)

5.2. North America

5.2.1. Market estimates and forecasts, 2016 - 2027 (USD Million)

5.2.2. Market estimates and forecasts, by application, 2016 - 2027 (USD Million)

5.2.3. U.S.

5.2.3.1. Market estimates and forecasts, 2016 - 2027 (USD Million)

5.2.3.2. Market estimates and forecasts, by application type, 2016 - 2027 (USD Million)

5.2.4. Canada

5.2.4.1. Market estimates and forecasts, 2016 - 2027 (USD Million)

5.2.4.2. Market estimates and forecasts, by application type, 2016 - 2027 (USD Million)

5.3. Europe

5.3.1. Market estimates and forecasts, 2016 - 2027 (USD Million)

5.3.2. Market estimates and forecasts, by application type, 2016 - 2027 (USD Million)

5.3.3. U.K.

5.3.3.1. Market estimates and forecasts, 2016 - 2027 (USD Million)

5.3.3.2. Market estimates and forecasts, by application type, 2016 - 2027 (USD Million)

5.3.4. Germany

5.3.4.1. Market estimates and forecasts, 2016 - 2027 (USD Million)

5.3.4.2. Market estimates and forecasts, by application type, 2016 - 2027 (USD Million)

5.3.5. France

5.3.5.1. Market estimates and forecasts, 2016 - 2027 (USD Million)

5.3.5.2. Market estimates and forecasts, by application type, 2016 - 2027 (USD Million)

5.4. Asia Pacific

5.4.1. Market estimates and forecasts, 2016 - 2027 (USD Million)

5.4.2. Market estimates and forecasts, by application type, 2016 - 2027 (USD Million)

5.4.3. China

5.4.3.1. Market estimates and forecasts, 2016 - 2027 (USD Million)

5.4.3.2. Market estimates and forecasts, by application type, 2016 - 2027 (USD Million)

5.4.4. India

5.4.4.1. Market estimates and forecasts, 2016 - 2027 (USD Million)

5.4.4.2. Market estimates and forecasts, by application type, 2016 - 2027 (USD Million)

5.4.5. Japan

5.4.5.1. Market estimates and forecasts, 2016 - 2027 (USD Million)

5.4.5.2. Market estimates and forecasts, by application type, 2016 - 2027 (USD Million)

5.5. Latin America

5.5.1. Market estimates and forecasts, 2016 - 2027 (USD Million)

5.5.2. Market estimates and forecasts, by application type, 2016 - 2027 (USD Million)

5.5.3. Brazil

5.5.3.1. Market estimates and forecasts, 2016 - 2027 (USD Million)

5.5.3.2. Market estimates and forecasts, by application type, 2016 - 2027 (USD Million)

5.5.4. Mexico

5.5.4.1. Market estimates and forecasts, 2016 - 2027 (USD Million)

5.5.4.2. Market estimates and forecasts, by application type, 2016 - 2027 (USD Million)

5.6. Middle East & Africa

5.6.1. Market estimates and forecasts, 2016 - 2027 (USD Million)

5.6.2. Market estimates and forecasts, by application type, 2016 - 2027 (USD Million)

CHAPTER 6. COMPETITIVE LANDSCAPE

6.1. Synopsys, Inc.

6.1.1. Company overview

6.1.2. Financial performance

6.1.3. Product benchmarking

6.1.4. Recent developments

6.2. Silvaco Inc.,

6.2.1. Company overview

6.2.2. Financial performance

- 6.2.3. Product benchmarking
- 6.2.4. Recent developments
- 6.3. Cogenda Pte Ltd.,
 - 6.3.1. Company overview
 - 6.3.2. Financial performance
 - 6.3.3. Product benchmarking
 - 6.3.4. Recent developments
- 6.4. Crosslight Software Inc
 - 6.4.1. Company overview
 - 6.4.2. Financial performance
 - 6.4.3. Product benchmarking
 - 6.4.4. Recent developments
- 6.5. Global TCAD Solutions (GTS) GmbH
 - 6.5.1. Company overview
 - 6.5.2. Financial performance
 - 6.5.3. Product benchmarking
 - 6.5.4. Recent developments
- 6.6. NTT Data Mathematical Systems, Inc.
 - 6.6.1. Company overview
 - 6.6.2. Financial performance
 - 6.6.3. Product benchmarking
 - 6.6.4. Recent developments

List Of Tables

LIST OF TABLES

TABLE 1 Global technology computer aided design software market, 2016 - 2027 (USD Million)

TABLE 2 Global technology computer aided design software market, by application type, 2016 - 2027 (USD Million)

TABLE 3 Global technology computer aided design software market, by region, 2016 - 2027 (USD Million)

TABLE 4 CMOS market, 2016 - 2027 (USD Million)

TABLE 5 CMOS market by region, 2016 - 2027 (USD Million)

TABLE 6 Image sensors market, 2016 - 2027 (USD Million)

TABLE 7 Image sensors market by region, 2016 - 2027 (USD Million)

TABLE 8 Solar cells market, 2016 - 2027 (USD Million)

TABLE 9 Solar cells market by region, 2016 - 2027 (USD Million)

TABLE 10 Analog/RF devices market, 2016 - 2027 (USD Million)

TABLE 11 Analog/RF devices market by region, 2016 - 2027 (USD Million)

TABLE 12 North America technology computer aided design software market by application type, 2016 - 2027 (USD Million)

TABLE 13 U.S. technology computer aided design software market by application type, 2016 - 2027 (USD Million)

TABLE 14 Canada technology computer aided design software market by application type, 2016 - 2027 (USD Million)

TABLE 15 Europe technology computer aided design software market by application type, 2016 - 2027 (USD Million)

TABLE 16 U.K. technology computer aided design software market by application type, 2016 - 2027 (USD Million)

TABLE 17 Germany technology computer aided design software market by application type, 2016 - 2027 (USD Million)

TABLE 18 France technology computer aided design software market by application type, 2016 - 2027 (USD Million)

TABLE 19 Asia Pacific technology computer aided design software market by application type, 2016 - 2027 (USD Million)

TABLE 20 China technology computer aided design software market by application type, 2016 - 2027 (USD Million)

TABLE 21 India technology computer aided design software market by application type, 2016 - 2027 (USD Million)

TABLE 22 Japan technology computer aided design software market by application

type, 2016 - 2027 (USD Million)

TABLE 23 Latin America technology computer aided design software market by application type, 2016 - 2027 (USD Million)

TABLE 24 Brazil technology computer aided design software market by application type, 2016 - 2027 (USD Million)

TABLE 25 Mexico technology computer aided design software market by application type, 2016 - 2027 (USD Million)

TABLE 26 MEA technology computer aided design software market by application type, 2016 - 2027 (USD Million)

List Of Figures

LIST OF FIGURES

FIG. 1 Research process

FIG. 2 Information procurement

FIG. 3 Technology computer aided design software regional marketplace: Key takeaways

FIG. 4 Technology computer aided design software market - Trends & outlook

FIG. 5 Technology computer aided design software - Market segmentation & scope

FIG. 6 Technology computer aided design software - Market size and growth prospects (USD Billion)

FIG. 7 Technology computer aided design software - Value chain analysis

FIG. 8 Technology computer aided design software - Market dynamics

FIG. 9 Technology computer aided design software - Market driver relevance analysis (Current & future impact)

FIG. 10 Technology computer aided design software - Market restraint/challenge relevance analysis (Current & future impact)

FIG. 11 Technology computer aided design software - Market opportunity relevance analysis (Current & future impact)

FIG. 12 Technology computer aided design software - Market porter's analysis

FIG. 13 Technology computer aided design software - Key company ranking analysis, 2019

FIG. 14 Technology computer aided design software - Market PEST analysis

FIG. 15 Technology computer aided design software market application type outlook, 2019 & 2027

FIG. 16 Technology computer aided design software market regional outlook - Key takeaways

FIG. 17 North America technology computer aided design software market - Key takeaways

FIG. 18 North America technology computer aided design software market analysis

FIG. 19 Europe technology computer aided design software market - Key takeaways

FIG. 20 Europe technology computer aided design software market analysis

FIG. 21 Asia Pacific technology computer aided design software market - Key takeaways

FIG. 22 Asia Pacific technology computer aided design software market analysis

FIG. 23 Latin America technology computer aided design software market - Key takeaways

FIG. 24 Latin America technology computer aided design software market analysis

FIG. 25 Middle East & Africa (MEA) technology computer aided design software market
- Key takeaways

Fig. 26 Middle East & Africa (MEA) technology computer aided design software market
analysis

I would like to order

Product name: Technology CAD Software Market Size, Share & Trends Analysis Report By Application Type (CMOS, Image Sensors, Solar Cells, Analog/RF Sensors), By Region, And Segment Forecasts, 2020 - 2027

Product link: <https://marketpublishers.com/r/TCE0B02F0ED8EN.html>

Price: US\$ 4,950.00 (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/TCE0B02F0ED8EN.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