

# **Printed Electronics Market with COVID-19 Impact Analysis by Printing Technology (Screen Printing, Inkjet Printing), Application (Displays, PV Cells), Resolution, Material (Inks, Substrates), End-use Industry, and Geography - Global Forecast to 2026**

<https://marketpublishers.com/r/P2E7031C9C4EN.html>

Date: October 2021

Pages: 271

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

ID: P2E7031C9C4EN

## **Abstracts**

The global printed electronics market is projected to reach USD 23.0 billion by 2026 from an estimated USD 9.9 billion in 2021, at a CAGR of 18.3% from 2021 to 2026. The global demand for printed electronics is growing due to the increased applications of printed electronics in the IoT environment. Various sensors, smart labels, loggers, and RFID tags can be manufactured at a low cost by using printed electronics. In addition, the growth of the printed electronics market can be attributed to the increased global demand for miniaturized devices, technological advancements taking place in electronics devices, and the availability of portable electronic devices for packaging, automotive, and healthcare applications.

“The above 200 lines/cm segment is expected to grow at the highest CAGR during the forecast period”

The above 200 lines/cm segment is expected to grow at the highest CAGR during the forecast period. Growth is due to the increased use of this resolution to develop new types of printed electronics with improved functionalities.

“The lighting segment of the printed electronics market is expected to grow at the highest CAGR during the forecast period”

Lighting based on printed electronics is rapidly replacing tungsten, halogen, and fluorescent lamps, which are costly. Moreover, governments of different countries have

made increased investments in the development of printed OLED-based lighting. They have also issued directives mandating the use of energy-efficient lighting. Thus, the lighting segment of the printed electronics market is expected to grow at the highest CAGR during the forecast period.

“The aerospace and defense segment is projected to grow at the highest CAGR during the forecast”

The aerospace & defense segment of the printed electronics market is projected to grow at the highest CAGR during the forecast period owing to the increasing use of printing electronics due to their lightweight, less complexity, and high reliability, which ultimately results in their low maintenance requirements. Printed sensors and batteries are used to monitor environments and remote assets of military establishments. They can be used in devices that are employed for the surveillance of inaccessible environments. Printed display panels are also deployed in rugged systems, which are used in defense applications. They are also used in cockpits and navigational systems of aircraft.

“Based on region, APAC is expected to account for the largest share of the printed electronics market by 2026”

In 2026, APAC is projected to hold the largest share of the overall printed electronics market. The market in APAC is expected to grow at the highest CAGR during the forecast period. The major factor contributing to this growth is technological developments and a major focus on energy harvesting in countries such as China, Japan, and South Korea. China and Japan are industrial hubs that house numerous electronic equipment, devices, components, automotive, and other industries, which require printed electronics for reducing the overall energy consumption. Moreover, the industrial transformation toward digitalization is expected to transform manual processes into digital processes in the manufacturing industries. This is expected to increase the demand for highly advanced and miniaturized electronic devices and products. Thus, it is expected to support the growth of the printed electronics market in the future.

In-depth interviews have been conducted with chief executive officers (CEOs), directors, and other executives from various key organizations operating in the printed electronics marketplace.

By Company Type: Tier 1 – 50%, Tier 2 – 30%, and Tier 3 – 20%

By Designation: C-level Executives – 45%, Directors– 35%, and Others – 20%

By Region: Americas – 40%, Europe – 30%, APAC – 20%, and RoW – 10%

Samsung Electronics Co., Ltd. (South Korea), LG Display Co., Ltd. (South Korea), Molex, LLC (US), Agfa-Gevaert Group (Belgium), Palo Alto Research Center Incorporated (PARC) (US), DuPont de Nemours, Inc. (US), Nissha Co., Ltd. (Japan), BASF (Germany), NovaCentrix (US), and E Ink Holdings Inc. (Taiwan) are some of the key players in the printed electronics market.

The study includes an in-depth competitive analysis of these key players in the printed electronics market, with their company profiles, recent developments, and key market strategies.

### Research Coverage

The report defines, describes, and forecasts the printed electronics market based on printing technology, material, resolutions, application, end-use industry, and region. It provides detailed information regarding factors such as drivers, restraints, opportunities, and challenges influencing the growth of the printed electronics market. It also analyzes product launches, expansions, partnerships, collaborations, agreements, and acquisitions, carried out by the key players to grow in the market.

### Key Benefits of Buying the Report

This report will help market leaders/new entrants in this industry with information on the closest approximations of the revenue numbers for the overall printed electronics market and the subsegments. The report will help stakeholders understand the competitive landscape and gain more insights to better position their businesses and plan suitable go-to-market strategies. The report will also help stakeholders to understand the pulse of the market and provide them with information on key market drivers, restraints, challenges, and opportunities.

## Contents

### 1 INTRODUCTION

#### 1.1 STUDY OBJECTIVES

#### 1.2 MARKET DEFINITION AND SCOPE

##### 1.2.1 INCLUSIONS AND EXCLUSIONS

#### 1.3 STUDY SCOPE

##### 1.3.1 MARKETS COVERED

#### FIGURE 1 PRINTED ELECTRONICS MARKET SEGMENTATION

##### 1.3.2 YEARS CONSIDERED

#### 1.4 CURRENCY

#### 1.5 STAKEHOLDERS

#### 1.6 SUMMARY OF CHANGES

### 2 RESEARCH METHODOLOGY

#### 2.1 RESEARCH DATA

#### FIGURE 2 PRINTED ELECTRONICS MARKET: RESEARCH DESIGN

##### 2.1.1 SECONDARY DATA

###### 2.1.1.1 List of key secondary sources

###### 2.1.1.2 Secondary sources

##### 2.1.2 PRIMARY DATA

###### 2.1.2.1 Breakdown of primaries

###### 2.1.2.2 Key data from primary sources

###### 2.1.2.3 Key industry insights

#### 2.2 FACTOR ANALYSIS

#### FIGURE 3 MARKET SIZE ESTIMATION METHODOLOGY, APPROACH 1: TOP-DOWN (SUPPLY-SIDE)—REVENUES GENERATED BY COMPANIES FROM THE SALES OF PRINTED ELECTRONICS

#### FIGURE 4 MARKET SIZE ESTIMATION METHODOLOGY, APPROACH 1—TOP-DOWN (SUPPLY-SIDE): ILLUSTRATION OF REVENUE ESTIMATIONS FOR ONE COMPANY IN THE PRINTED ELECTRONICS MARKET

#### FIGURE 5 MARKET SIZE ESTIMATION METHODOLOGY, APPROACH 2—BOTTOM-UP (DEMAND SIDE): DEMAND FOR PRINTED ELECTRONICS IN DIFFERENT APPLICATIONS

#### 2.3 MARKET SIZE ESTIMATION

##### 2.3.1 BOTTOM-UP APPROACH

###### 2.3.1.1 Approach for obtaining market share using bottom-up analysis (demand side)

**FIGURE 6 MARKET SIZE ESTIMATION METHODOLOGY: BOTTOM-UP APPROACH****2.3.2 TOP-DOWN APPROACH**

2.3.2.1 Approach for obtaining market share using top-down analysis (supply side)

**FIGURE 7 MARKET SIZE ESTIMATION METHODOLOGY: TOP-DOWN APPROACH****2.4 MARKET BREAKDOWN AND DATA TRIANGULATION****FIGURE 8 DATA TRIANGULATION****2.5 RESEARCH ASSUMPTIONS AND LIMITATIONS****2.5.1 ASSUMPTIONS****2.5.2 LIMITATIONS****3 EXECUTIVE SUMMARY****3.1 IMPACT OF COVID-19 ON PRINTED ELECTRONICS MARKET****FIGURE 9 GLOBAL PROPAGATION OF COVID-19****TABLE 1 RECOVERY SCENARIOS FOR THE GLOBAL ECONOMY****3.2 REALISTIC SCENARIO****3.3 OPTIMISTIC SCENARIO****3.4 PESSIMISTIC SCENARIO****FIGURE 10 GROWTH PROJECTIONS OF PRINTED ELECTRONICS MARKET IN REALISTIC, OPTIMISTIC, AND PESSIMISTIC SCENARIOS****TABLE 2 PRE AND POST-COVID-19 SCENARIO OF PRINTED ELECTRONICS MARKET, 2017–2026 (USD MILLION)****FIGURE 11 PRE AND POST-COVID-19 SCENARIOS OF PRINTED ELECTRONICS MARKET****TABLE 3 LG DISPLAY CO. LTD.: QUARTER-WISE DISPLAY AREA SHIPMENT, 2019–2020 (MILLION SQUARE METERS)****FIGURE 12 SCREEN PRINTING TO HOLD LARGEST SIZE OF PRINTED ELECTRONICS MARKET FROM 2021 TO 2026****FIGURE 13 INKS SEGMENT PROJECTED TO LEAD PRINTED ELECTRONICS MARKET, BY MATERIAL, FROM 2021 TO 2026****FIGURE 14 DISPLAYS APPLICATION SEGMENT TO HOLD LARGEST SIZE OF PRINTED ELECTRONICS MARKET FROM 2021 TO 2026****FIGURE 15 AEROSPACE & DEFENSE END-USE INDUSTRY SEGMENT TO GROW AT HIGHEST CAGR DURING FORECAST PERIOD****FIGURE 16 APAC ACCOUNTED FOR LARGEST SHARE OF PRINTED ELECTRONICS MARKET IN 2026****4 PREMIUM INSIGHTS**

#### 4.1 PRINTED ELECTRONICS MARKET OPPORTUNITIES

FIGURE 17 INCREASED GLOBAL ADOPTION OF PRINTED ELECTRONICS IN IOT APPLICATIONS TO FUEL MARKET GROWTH FROM 2021 TO 2026

#### 4.2 PRINTED ELECTRONICS MARKET, BY TECHNOLOGY AND APPLICATION

FIGURE 18 SCREEN PRINTING AND DISPLAYS TO BE LARGEST SHAREHOLDERS IN GLOBAL PRINTED ELECTRONICS MARKET, BY TECHNOLOGY AND APPLICATION, RESPECTIVELY, IN 2026

#### 4.3 PRINTED ELECTRONICS MARKET, BY SUBSTRATE

FIGURE 19 ORGANIC SUBSTRATES TO ACCOUNT FOR LARGER SIZE OF PRINTED ELECTRONICS MARKET FOR SUBSTRATES IN 2026

#### 4.4 PRINTED ELECTRONICS MARKET, BY END-USE INDUSTRY

FIGURE 20 AUTOMOTIVE & TRANSPORTATION TO ACCOUNT FOR LARGEST SHARES OF PRINTED ELECTRONICS MARKET IN 2026

#### 4.5 PRINTED ELECTRONICS MARKET, BY REGION

FIGURE 21 APAC TO CAPTURE LARGEST SHARE OF GLOBAL PRINTED ELECTRONICS MARKET IN 2026

#### 4.6 PRINTED ELECTRONICS MARKET, BY COUNTRY

FIGURE 22 CHINA TO RECORD HIGHEST CAGR IN GLOBAL PRINTED ELECTRONICS MARKET DURING FORECAST PERIOD

### 5 MARKET OVERVIEW

#### 5.1 INTRODUCTION

#### 5.2 MARKET DYNAMICS

FIGURE 23 PRINTED ELECTRONICS MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES

##### 5.2.1 DRIVERS

5.2.1.1 Increased demand for printed electronic products in automotive & transportation

5.2.1.2 Growth of the consumer electronics industry

FIGURE 24 GLOBAL NUMBER OF SMARTPHONE USERS (BILLIONS) (2016–2021)

5.2.1.3 Increased adoption of IoT by end-use industries

5.2.1.4 Significant cost advantages offered by printed electronics

FIGURE 25 PRINTED ELECTRONICS MARKET DRIVERS AND THEIR IMPACT

##### 5.2.2 RESTRAINTS

5.2.2.1 High investment cost

FIGURE 26 PRINTED ELECTRONICS MARKET RESTRAINTS AND THEIR IMPACT

##### 5.2.3 OPPORTUNITIES

5.2.3.1 Promising newer applications of printed electronics in healthcare

5.2.3.2 Smart packaging to create lucrative growth opportunities for printed electronics

5.2.3.3 Use of printed electronics to reduce electromagnetic interference associated with 5G technology

FIGURE 27 PRINTED ELECTRONICS MARKET OPPORTUNITIES AND THEIR IMPACT

#### 5.2.4 CHALLENGES

5.2.4.1 Inadequate knowledge of appropriate material and design selection for smart building applications

5.2.4.2 Commercialization of graphene-based printed electronics

FIGURE 28 PRINTED ELECTRONICS MARKET CHALLENGES AND THEIR IMPACT

#### 5.3 SUPPLY CHAIN ANALYSIS

FIGURE 29 SUPPLY CHAIN OF THE PRINTED ELECTRONICS MARKET

5.4 TRENDS/DISRUPTIONS IMPACTING THE BUSINESS OF MARKET PLAYERS AND RAW MATERIAL SUPPLIERS

5.4.1 REVENUE SHIFT AND NEW REVENUE POCKETS FOR PRINTED ELECTRONICS MARKET PLAYERS

FIGURE 30 REVENUE SHIFT IN THE PRINTED ELECTRONICS MARKET

#### 5.5 PRINTED ELECTRONICS ECOSYSTEM

FIGURE 31 PRINTED ELECTRONICS ECOSYSTEM

TABLE 4 LIST OF ORIGINAL EQUIPMENT MANUFACTURERS, SUPPLIERS, AND DISTRIBUTORS OF PRINTED ELECTRONICS

#### 5.6 PORTER'S FIVE FORCES MODEL

TABLE 5 PRINTED ELECTRONICS MARKET: PORTER'S FIVE FORCES ANALYSIS

FIGURE 32 PORTER'S FIVE FORCES ANALYSIS

5.6.1 INTENSITY OF COMPETITIVE RIVALRY

5.6.2 BARGAINING POWER OF SUPPLIERS

5.6.3 BARGAINING POWER OF BUYERS

5.6.4 THREAT OF SUBSTITUTES

5.6.5 THREAT OF NEW ENTRANTS

#### 5.7 CASE STUDY

5.7.1 HUSHBRUSH APPROACHED THE CENTRE FOR PROCESS INNOVATION LIMITED (CPI) TO MANUFACTURE A SENSORY BRUSH THAT SUPPORTS EARLY DEVELOPMENT AND CHILD WELLBEING

5.7.2 US DEPARTMENT OF ENERGY'S ADVANCED RESEARCH PROJECTS AGENCY-ENERGY (ARPA-E) PARTNERED WITH PARC TO DEVELOP A LOW-COST SYSTEM FOR DETECTING METHANE LEAKS AT NATURAL GAS WELLS

5.7.3 CARBON NANOTUBE (CNT) HYBRID MATERIALS FROM CHASM ADVANCED MATERIALS, INC. HELP REDUCE LEAD TIMES AND



## MANUFACTURING COST

5.7.4 NOVARES COLLABORATED WITH FLEXENABLE TO INTEGRATE CURVED DISPLAYS IN ITS DEMO CAR

## 5.8 TECHNOLOGY ANALYSIS

### 5.8.1 COMPLEMENTARY TECHNOLOGIES

5.8.1.1 Active matrix organic light-emitting diodes (AMOLED)

### 5.8.2 ADJACENT TECHNOLOGIES

5.8.2.1 Soft lithography

## 5.9 AVERAGE SELLING PRICE ANALYSIS

TABLE 6 AVERAGE SELLING PRICE FOR PRINTED ELECTRONICS MATERIALS

## 5.10 TRADE ANALYSIS

### 5.10.1 IMPORT SCENARIO

TABLE 7 IMPORT DATA, BY COUNTRY, 2016–2020 (USD BILLION)

### 5.10.2 EXPORT SCENARIO

TABLE 8 EXPORT DATA, BY COUNTRY, 2016–2020 (USD BILLION)

## 5.11 PATENT ANALYSIS, 2015–2021

FIGURE 33 PATENTS GRANTED WORLDWIDE FROM 2011 TO 2021

TABLE 9 TOP 20 PATENT OWNERS IN US FROM 2011 TO 2021

FIGURE 34 TOP 10 COMPANIES WITH THE HIGHEST NUMBER OF PATENT APPLICATIONS, 2011–2021

## 5.12 TARIFFS AND REGULATIONS

### 5.12.1 TARIFFS

### 5.12.2 REGULATORY COMPLIANCE

### 5.12.3 STANDARDS

### 5.12.4 PRINTED ELECTRONICS ASSOCIATIONS

## 6 DIFFERENT SUBSTRATE TRANSPORT TECHNIQUES IN PRINTED ELECTRONICS

### 6.1 INTRODUCTION

### 6.2 ROLL-TO-ROLL

### 6.3 SHEET-TO-SHEET

### 6.4 SHEETS-ON-SHUTTLE

## 7 PRINTED ELECTRONICS MARKET, BY PRINTING TECHNOLOGY

### 7.1 INTRODUCTION

FIGURE 35 PRINTED ELECTRONICS MARKET, BY PRINTING TECHNOLOGY

FIGURE 36 SCREEN PRINTING TO ACCOUNT FOR LARGEST SIZE OF PRINTED



## ELECTRONICS MARKET IN 2021

TABLE 10 PRINTED ELECTRONICS MARKET, BY PRINTING TECHNOLOGY, 2017–2020 (USD MILLION)

TABLE 11 PRINTED ELECTRONICS MARKET, BY PRINTING TECHNOLOGY, 2021–2026 (USD MILLION)

TABLE 12 PRINTED ELECTRONICS MARKET, IN TERMS OF VALUE AND VOLUME, 2017–2020 (USD MILLION)

TABLE 13 PRINTED ELECTRONICS MARKET, IN TERMS OF VALUE AND VOLUME, 2021–2026 (USD MILLION)

### 7.2 SCREEN PRINTING

#### 7.2.1 FLATBED SCREEN PRINTING

7.2.1.1 Flatbed screen printing technology is ideal for the development of products that require a precise thickness of ink

#### 7.2.2 ROTARY SCREEN PRINTING

7.2.2.1 Rising demand for rotary screen printing due to its durability

FIGURE 37 DISPLAYS TO ACCOUNT FOR LARGEST SIZE OF PRINTED ELECTRONICS MARKET FOR SCREEN PRINTING DURING FORECAST PERIOD

TABLE 14 PRINTED ELECTRONICS MARKET FOR SCREEN PRINTING, BY APPLICATION, 2017–2020 (USD MILLION)

TABLE 15 PRINTED ELECTRONICS MARKET FOR SCREEN PRINTING, BY APPLICATION, 2021–2026 (USD MILLION)

### 7.3 INKJET PRINTING

#### 7.3.1 CONTINUOUS INKJET PRINTING

7.3.1.1 Continuous inkjet printing technology is ideal for providing traceability data and complying with increasingly strict industry legislation

#### 7.3.2 DROP-ON-DEMAND INKJET PRINTING

##### 7.3.2.1 Thermal DoD inkjet printing

7.3.2.1.1 Thermal DoD inkjet printers produce excellent print quality

##### 7.3.2.2 Piezo DoD inkjet printing

7.3.2.2.1 Piezo DoD inkjet printing is a fast, advanced, and accurate technique for developing printed electronics

##### 7.3.2.3 Electrostatic DoD inkjet printing

7.3.2.3.1 Growing use of electrostatic DoD inkjet printing for selected cost-effective applications

TABLE 16 PRINTED ELECTRONICS MARKET FOR INKJET PRINTING, BY APPLICATION, 2017–2020 (USD MILLION)

TABLE 17 PRINTED ELECTRONICS MARKET FOR INKJET PRINTING, BY APPLICATION, 2021–2026 (USD MILLION)

TABLE 18 PRINTED ELECTRONICS MARKET FOR INKJET PRINTING, BY

RESOLUTION, 2017–2020 (USD MILLION)

TABLE 19 PRINTED ELECTRONICS MARKET FOR INKJET PRINTING, BY  
RESOLUTION, 2021–2026 (USD MILLION)

#### 7.4 FLEXOGRAPHIC PRINTING

7.4.1 FLEXOGRAPHIC PRINTING TECHNOLOGY ENABLES HIGH-SPEED AND  
CONTINUOUS PATTERN PRINTING

TABLE 20 PRINTED ELECTRONICS MARKET FOR FLEXOGRAPHIC PRINTING, BY  
APPLICATION, 2017–2020 (USD MILLION)

TABLE 21 PRINTED ELECTRONICS MARKET FOR FLEXOGRAPHIC PRINTING, BY  
APPLICATION, 2021–2026 (USD MILLION)

#### 7.5 GRAVURE PRINTING

7.5.1 GRAVURE PRINTING IS IDEAL FOR LONG-RUN PRINTING PROCESSES  
FIGURE 38 PV CELLS TO CAPTURE SECOND-LARGEST SHARE OF THE  
GRAVURE PRINTING ELECTRONICS MARKET FROM 2021-2026

TABLE 22 PRINTED ELECTRONICS MARKET FOR GRAVURE PRINTING, BY  
APPLICATION, 2017–2020 (USD MILLION)

TABLE 23 PRINTED ELECTRONICS MARKET FOR GRAVURE PRINTING, BY  
APPLICATION, 2021–2026 (USD MILLION)

#### 7.6 OTHER PRINTING TECHNOLOGIES

7.6.1 3D PRINTING

7.6.2 OFFSET PRINTING

7.6.3 REEL-TO-REEL PRINTING

7.6.4 AEROSOL JET PRINTING

7.6.5 PNEUMATIC PRINTING

7.6.6 NANOIMPRINTING

TABLE 24 PRINTED ELECTRONICS MARKET FOR OTHER PRINTING  
TECHNOLOGIES, BY APPLICATION, 2017–2020 (USD MILLION)

TABLE 25 PRINTED ELECTRONICS MARKET FOR OTHER PRINTING  
TECHNOLOGIES, BY APPLICATION, 2021–2026 (USD MILLION)

TABLE 26 PRINTED ELECTRONICS MARKET FOR OTHER PRINTING  
TECHNOLOGIES, BY RESOLUTION, 2017–2020 (USD MILLION)

TABLE 27 PRINTED ELECTRONICS MARKET FOR OTHER PRINTING  
TECHNOLOGIES, BY RESOLUTION, 2021–2026 (USD MILLION)

## 8 PRINTED ELECTRONICS MARKET, BY MATERIAL

### 8.1 INTRODUCTION

FIGURE 39 PRINTED ELECTRONICS MARKET, BY MATERIAL

FIGURE 40 INKS TO ACCOUNT FOR LARGER SIZE OF PRINTED ELECTRONICS

## MARKET IN 2021

TABLE 28 PRINTED ELECTRONICS MARKET, BY MATERIAL, 2017–2020 (USD MILLION)

TABLE 29 PRINTED ELECTRONICS MARKET, BY MATERIAL, 2021–2026 (USD MILLION)

### 8.2 INKS

TABLE 30 PRINTED ELECTRONICS MARKET FOR INKS, BY TYPE, 2017–2020 (USD MILLION)

TABLE 31 PRINTED ELECTRONICS MARKET FOR INKS, BY TYPE, 2021–2026 (USD MILLION)

#### 8.2.1 CONDUCTIVE INKS

8.2.1.1 Conductive inks have high conductivity and cost-effectiveness

8.2.1.2 Conductive silver inks

8.2.1.3 Conductive copper inks

8.2.1.4 Transparent conductive inks

8.2.1.5 Silver copper inks

8.2.1.6 Carbon inks

#### 8.2.2 DIELECTRIC INKS

8.2.2.1 Dielectric inks allow circuitry crossover and multilayer applications

#### 8.2.3 OTHER INKS

8.2.3.1 Carbon nanotubes

8.2.3.2 Graphene inks

### 8.3 SUBSTRATES

FIGURE 41 ORGANIC SUBSTRATES TO ACCOUNT FOR LARGER SIZE OF PRINTED ELECTRONICS MARKET IN 2021

TABLE 32 PRINTED ELECTRONICS MARKET FOR SUBSTRATES, BY TYPE, 2017–2020 (USD MILLION)

TABLE 33 PRINTED ELECTRONICS MARKET FOR SUBSTRATES, BY TYPE, 2021–2026 (USD MILLION)

TABLE 34 PRINTED ELECTRONICS MARKET FOR ORGANIC AND INORGANIC SUBSTRATES, BY TYPE, 2017–2020 (USD MILLION)

TABLE 35 PRINTED ELECTRONICS MARKET FOR ORGANIC AND INORGANIC SUBSTRATES, BY TYPE, 2021–2026 (USD MILLION)

#### 8.3.1 ORGANIC SUBSTRATES

8.3.1.1 Polymers

8.3.1.1.1 The use of polymers leads to low-cost printing of electronic components on flexible substrates

8.3.1.1.2 Polyimides

8.3.1.1.3 Polyethylene naphthalate

**TABLE 36 BENEFITS AND APPLICATIONS OF POLYETHYLENE NAPHTHALENE (PEN)**

8.3.1.1.4 Polyethylene terephthalate

**TABLE 37 BENEFITS AND APPLICATIONS OF POLYETHYLENE TEREPHTHALATE (PET)**

8.3.1.2 Paper

8.3.1.2.1 Paper offers flexibility, cost-effectiveness, and printing sustainability

8.3.1.2.2 Polyacrylate

8.3.1.2.3 Polystyrene

8.3.1.2.4 Polyvinylpyrrolidone

8.3.1.2.5 Polyvinyl alcohol

8.3.1.3 Other organic substrates

**8.3.2 INORGANIC SUBSTRATES**

8.3.2.1 Glass

8.3.2.1.1 Glass features excellent mechanical and optical properties

8.3.2.2 Other inorganic substrates

8.3.2.2.1 Silicon

8.3.2.2.2 Metal oxides

8.3.2.2.2.1 Silicon dioxide

8.3.2.2.2.2 Aluminum oxide

8.3.2.2.2.3 Titanium oxide

**9 PRINTED ELECTRONICS MARKET, BY RESOLUTION****9.1 INTRODUCTION**

FIGURE 42 PRINTED ELECTRONICS MARKET, BY RESOLUTION

FIGURE 43 BELOW 100 LINES/CM TO DOMINATE PRINTED ELECTRONICS MARKET OVER FORECAST PERIOD

TABLE 38 PRINTED ELECTRONICS MARKET, BY RESOLUTION, 2017–2020 (USD MILLION)

TABLE 39 PRINTED ELECTRONICS MARKET, BY RESOLUTION, 2021–2026 (USD MILLION)

**9.2 BELOW 100 LINES/CM**

9.2.1 BELOW 100 LINES/CM SEGMENT HOLDS LARGEST SIZE OF PRINTED ELECTRONICS MARKET

TABLE 40 BELOW 100 LINES/CM PRINTED ELECTRONICS MARKET, BY PRINTING TECHNOLOGY, 2017–2020 (USD MILLION)

TABLE 41 BELOW 100 LINES/CM PRINTED ELECTRONICS MARKET, BY PRINTING TECHNOLOGY, 2021–2026 (USD MILLION)

### 9.3 100–200 LINES/CM

9.3.1 100–200 LINES/CM SEGMENT OF PRINTED ELECTRONICS MARKET  
PROJECTED TO GROW STEADILY FROM 2021 TO 2026

TABLE 42 100–200 LINES/CM PRINTED ELECTRONICS MARKET, BY PRINTING  
TECHNOLOGY, 2017–2020 (USD MILLION)

TABLE 43 100–200 LINES/CM PRINTED ELECTRONICS MARKET, BY PRINTING  
TECHNOLOGY, 2021–2026 (USD MILLION)

### 9.4 ABOVE 200 LINES/CM

9.4.1 ABOVE 200 LINES/CM RESOLUTION ENSURES HIGH-PERFORMANCE  
CIRCUIT FUNCTIONALITIES

TABLE 44 ABOVE 200 LINES/CM PRINTED ELECTRONICS MARKET, BY PRINTING  
TECHNOLOGY, 2017–2020 (USD MILLION)

TABLE 45 ABOVE 200 LINES/CM PRINTED ELECTRONICS MARKET, BY PRINTING  
TECHNOLOGY, 2021–2026 (USD MILLION)

## 10 PRINTED ELECTRONICS MARKET, BY APPLICATION

### 10.1 INTRODUCTION

FIGURE 44 PRINTED ELECTRONICS MARKET, BY APPLICATION

FIGURE 45 DISPLAYS SEGMENT TO CAPTURE LARGEST SHARE OF PRINTED  
ELECTRONICS MARKET IN 2020

TABLE 46 PRINTED ELECTRONICS MARKET, BY APPLICATION, 2017–2020 (USD  
MILLION)

TABLE 47 PRINTED ELECTRONICS MARKET, BY APPLICATION, 2021–2026 (USD  
MILLION)

### 10.2 DISPLAYS

TABLE 48 PRINTED ELECTRONICS MARKET FOR DISPLAYS, BY TYPE, 2017–2020  
(USD MILLION)

TABLE 49 PRINTED ELECTRONICS MARKET FOR DISPLAYS, BY TYPE, 2021–2026  
(USD MILLION)

TABLE 50 PRINTED ELECTRONICS MARKET FOR DISPLAYS, BY PRINTING  
TECHNOLOGY, 2017–2020 (USD MILLION)

TABLE 51 PRINTED ELECTRONICS MARKET FOR DISPLAYS, BY PRINTING  
TECHNOLOGY, 2021–2026 (USD MILLION)

TABLE 52 PRINTED ELECTRONICS MARKET FOR DISPLAYS, BY REGION,  
2017–2020 (USD MILLION)

TABLE 53 PRINTED ELECTRONICS MARKET FOR DISPLAYS, BY REGION,  
2021–2026 (USD MILLION)

#### 10.2.1 E-PAPER DISPLAYS

TABLE 54 PRINTED ELECTRONICS MARKET FOR E-PAPER DISPLAYS, BY TYPE, 2017–2020 (USD MILLION)

TABLE 55 PRINTED ELECTRONICS MARKET FOR E-PAPER DISPLAYS, BY TYPE, 2021–2026 (USD MILLION)

10.2.1.1 Electrochromic displays

10.2.1.1.1 Increasing global adoption of electrochromic displays owing to their consistent performance and flexibility

10.2.1.2 Electrophoretic displays

10.2.1.2.1 Rising use of electrophoretic displays by e-readers contributing to an increase in demand for these displays

10.2.1.3 Other e-paper displays

10.2.2 ELECTROLUMINESCENT DISPLAYS

10.2.2.1 OLED displays

10.2.2.1.1 Use of printed electronics in developing OLED displays makes them thinner, rollable, and more efficient

10.2.2.2 Flexible OLED displays

10.2.2.2.1 Prevailing trend of flexible consumer electronic devices projected to drive market for flexible OLED displays

10.2.2.3 LCDs

10.2.2.3.1 Highly suited to television and automotive applications

10.3 PHOTOVOLTAIC CELLS

10.3.1 RISING USE OF PRINTED PV CELLS TO ENHANCE EFFICIENCY OF SOLAR CONVERSION DEVICES

FIGURE 46 INKJET TECHNOLOGY FOR PV CELLS TO WITNESS GROWTH AT HIGHEST CAGR FROM 2021-2026

TABLE 56 PRINTED ELECTRONICS MARKET FOR PV CELLS, BY PRINTING TECHNOLOGY, 2017–2020 (USD MILLION)

TABLE 57 PRINTED ELECTRONICS MARKET FOR PV CELLS, BY PRINTING TECHNOLOGY, 2021–2026 (USD MILLION)

TABLE 58 PRINTED ELECTRONICS MARKET FOR PV CELLS, BY REGION, 2017–2020 (USD MILLION)

TABLE 59 PRINTED ELECTRONICS MARKET FOR PV CELLS, BY REGION, 2021–2026 (USD MILLION)

10.4 RFID TAGS

10.4.1 GROWING ADOPTION OF PRINTED RFID TAGS OVER SILICON CHIPS OWING TO THEIR COST BENEFITS

TABLE 60 PRINTED ELECTRONICS MARKET FOR RFID TAGS, BY PRINTING TECHNOLOGY, 2017–2020 (USD MILLION)

TABLE 61 PRINTED ELECTRONICS MARKET FOR RFID TAGS, BY PRINTING

TECHNOLOGY, 2021–2026 (USD MILLION)

FIGURE 47 APAC TO CAPTURE LARGEST SHARE OF PRINTED ELECTRONICS MARKET FOR RFID TAGS FROM 2020–2026

TABLE 62 PRINTED ELECTRONICS MARKET FOR RFID TAGS, BY REGION, 2017–2020 (USD MILLION)

TABLE 63 PRINTED ELECTRONICS MARKET FOR RFID TAGS, BY REGION, 2021–2026 (USD MILLION)

10.5 LIGHTING

TABLE 64 PRINTED ELECTRONICS MARKET FOR LIGHTING, BY TYPE, 2017–2020 (USD MILLION)

TABLE 65 PRINTED ELECTRONICS MARKET FOR LIGHTING, BY TYPE, 2021–2026 (USD MILLION)

TABLE 66 PRINTED ELECTRONICS MARKET FOR LIGHTING, BY PRINTING TECHNOLOGY, 2017–2020 (USD MILLION)

TABLE 67 PRINTED ELECTRONICS MARKET FOR LIGHTING, BY PRINTING TECHNOLOGY, 2021–2026 (USD MILLION)

TABLE 68 PRINTED ELECTRONICS MARKET FOR LIGHTING, BY REGION, 2017–2020 (USD MILLION)

TABLE 69 PRINTED ELECTRONICS MARKET FOR LIGHTING, BY REGION, 2021–2026 (USD MILLION)

10.5.1 ELECTROLUMINESCENT LIGHTING

10.5.1.1 Electroluminescent lighting offers high flexibility and thin-form factor

10.5.2 ORGANIC LIGHT-EMITTING DIODE LIGHTING

10.5.2.1 Growing awareness of green building to increase the demand for printed OLED lighting

10.6 SENSORS

FIGURE 48 TRADITIONAL SENSOR MANUFACTURING PROCESS

FIGURE 49 PRINTED SENSOR MANUFACTURING PROCESS

FIGURE 50 HUMIDITY SENSORS TO WITNESS GROWTH AT A HIGHER CAGR

TABLE 70 PRINTED ELECTRONICS MARKET FOR SENSORS, BY TYPE, 2017–2020 (USD MILLION)

TABLE 71 PRINTED ELECTRONICS MARKET FOR SENSORS, BY TYPE, 2021–2026 (USD MILLION)

TABLE 72 PRINTED ELECTRONICS MARKET FOR SENSORS, BY PRINTING TECHNOLOGY, 2017–2020 (USD MILLION)

TABLE 73 PRINTED ELECTRONICS MARKET FOR SENSORS, BY PRINTING TECHNOLOGY, 2021–2026 (USD MILLION)

TABLE 74 PRINTED ELECTRONICS MARKET FOR SENSORS, BY REGION, 2017–2020 (USD MILLION)



TABLE 75 PRINTED ELECTRONICS MARKET FOR SENSORS, BY REGION,  
2021–2026 (USD MILLION)

10.6.1 TOUCH SENSORS

10.6.1.1 Touch sensors are designed cost-effectively and effortlessly

10.6.2 GAS SENSORS

10.6.2.1 Growing concern for indoor and outdoor air quality to fuel market growth

10.6.3 HUMIDITY SENSORS

10.6.3.1 Humidity sensors help control environmental conditions

10.6.4 PRESSURE SENSORS

10.6.4.1 Technological advancements in printed pressure sensors make them ideal  
for healthcare applications

10.6.5 IMAGE SENSORS

10.6.5.1 Easily scalable into larger areas and high-pixel densities

10.6.6 TEMPERATURE SENSORS

10.6.6.1 Rising demand for reliable, high-performance, and low-cost temperature  
sensors fuels market growth

10.6.7 OTHER SENSORS

10.7 BATTERIES

10.7.1 PRINTED BATTERIES ARE IDEAL FOR HEALTHCARE APPLICATIONS

TABLE 76 PRINTED ELECTRONICS MARKET FOR BATTERIES, BY PRINTING  
TECHNOLOGY, 2017–2020 (USD MILLION)

TABLE 77 PRINTED ELECTRONICS MARKET FOR BATTERIES, BY PRINTING  
TECHNOLOGY, 2021–2026 (USD MILLION)

TABLE 78 PRINTED ELECTRONICS MARKET FOR BATTERIES, BY REGION,  
2017–2020 (USD MILLION)

TABLE 79 PRINTED ELECTRONICS MARKET FOR BATTERIES, BY REGION,  
2021–2026 (USD MILLION)

TABLE 80 PRINTED ELECTRONICS MARKET FOR BATTERIES, BY VOLTAGE,  
2017–2020 (USD MILLION)

TABLE 81 PRINTED ELECTRONICS MARKET FOR BATTERIES, BY VOLTAGE,  
2021–2026 (USD MILLION)

10.8 OTHER APPLICATIONS

TABLE 82 PRINTED ELECTRONICS MARKET FOR OTHER APPLICATIONS, BY  
PRINTING TECHNOLOGY, 2017–2020 (USD MILLION)

TABLE 83 PRINTED ELECTRONICS MARKET FOR OTHER APPLICATIONS, BY  
PRINTING TECHNOLOGY, 2021–2026 (USD MILLION)

TABLE 84 PRINTED ELECTRONICS MARKET FOR OTHER APPLICATIONS, BY  
REGION, 2017–2020 (USD MILLION)

TABLE 85 PRINTED ELECTRONICS MARKET FOR OTHER APPLICATIONS, BY

REGION, 2021–2026 (USD MILLION)

## **11 PRINTED ELECTRONICS MARKET, BY END-USE INDUSTRY**

### **11.1 INTRODUCTION**

FIGURE 51 PRINTED ELECTRONICS MARKET, BY END-USE INDUSTRY

FIGURE 52 AUTOMOTIVE & TRANSPORTATION TO ACCOUNT FOR LARGEST SHARE OF PRINTED ELECTRONICS MARKET IN 2021

TABLE 86 PRINTED ELECTRONICS MARKET, BY END-USE INDUSTRY, 2017–2020 (USD MILLION)

TABLE 87 PRINTED ELECTRONICS MARKET, BY END-USE INDUSTRY, 2021–2026 (USD MILLION)

### **11.2 AUTOMOTIVE & TRANSPORTATION**

11.2.1 AUTOMOTIVE & TRANSPORTATION END-USE INDUSTRY PROJECTED TO ACCOUNT FOR LARGEST SHARE OF PRINTED ELECTRONICS MARKET FROM 2021 TO 2026

TABLE 88 PRINTED ELECTRONICS MARKET FOR AUTOMOTIVE & TRANSPORTATION, BY REGION, 2017–2020 (USD MILLION)

TABLE 89 PRINTED ELECTRONICS MARKET FOR AUTOMOTIVE & TRANSPORTATION, BY REGION, 2021–2026 (USD MILLION)

### **11.3 CONSUMER ELECTRONICS**

11.3.1 INCREASED DEMAND FOR COMPACT ELECTRONIC DEVICES IS FUELING MARKET GROWTH

TABLE 90 PRINTED ELECTRONICS MARKET FOR CONSUMER ELECTRONICS, BY REGION, 2017–2020 (USD MILLION)

TABLE 91 PRINTED ELECTRONICS MARKET FOR CONSUMER ELECTRONICS, BY REGION, 2021–2026 (USD MILLION)

### **11.4 HEALTHCARE**

11.4.1 SPREAD OF COVID-19 LED TO INCREASED DEMAND FOR PATIENT MONITORING SOLUTIONS AND WEARABLE DEVICES

TABLE 92 PRINTED ELECTRONICS MARKET FOR HEALTHCARE, BY REGION, 2017–2020 (USD MILLION)

TABLE 93 PRINTED ELECTRONICS MARKET FOR HEALTHCARE, BY REGION, 2021–2026 (USD MILLION)

### **11.5 RETAIL & PACKAGING**

11.5.1 EMERGING APPLICATIONS OF PRINTED ELECTRONICS TO PROPEL MARKET GROWTH

FIGURE 53 APAC TO ACCOUNT FOR LARGEST SHARE OF PRINTED ELECTRONICS MARKET FOR RETAIL & PACKAGING IN 2021

TABLE 94 PRINTED ELECTRONICS MARKET FOR RETAIL & PACKAGING, BY REGION, 2017–2020 (USD MILLION)

TABLE 95 PRINTED ELECTRONICS MARKET FOR RETAIL & PACKAGING, BY REGION, 2021–2026 (USD MILLION)

#### 11.6 AEROSPACE & DEFENSE

11.6.1 PRINTED ELECTRONIC DEVICES HELP REDUCE SIZE AND WEIGHT OF AEROSPACE & DEFENSE COMMUNICATION SYSTEMS

TABLE 96 PRINTED ELECTRONICS MARKET FOR AEROSPACE & DEFENSE, BY REGION, 2017–2020 (USD MILLION)

TABLE 97 PRINTED ELECTRONICS MARKET FOR AEROSPACE & DEFENSE, BY REGION, 2021–2026 (USD MILLION)

#### 11.7 CONSTRUCTION & ARCHITECTURE

11.7.1 GROWING TREND OF SMART BUILDINGS TO FUEL MARKET GROWTH

TABLE 98 PRINTED ELECTRONICS MARKET FOR CONSTRUCTION & ARCHITECTURE, BY REGION, 2017–2020 (USD MILLION)

TABLE 99 PRINTED ELECTRONICS MARKET FOR CONSTRUCTION & ARCHITECTURE, BY REGION, 2021–2026 (USD MILLION)

#### 11.8 OTHER END-USE INDUSTRIES

TABLE 100 PRINTED ELECTRONICS MARKET FOR OTHER END-USE INDUSTRIES, BY REGION, 2017–2020 (USD MILLION)

TABLE 101 PRINTED ELECTRONICS MARKET FOR OTHER END-USE INDUSTRIES, BY REGION, 2021–2026 (USD MILLION)

## 12 GEOGRAPHIC ANALYSIS

### 12.1 INTRODUCTION

FIGURE 54 REGIONAL SPLIT OF PRINTED ELECTRONICS MARKET

FIGURE 55 APAC TO CAPTURE MAJOR SHARE OF PRINTED ELECTRONICS MARKET IN 2020 (USD MILLION)

TABLE 102 PRINTED ELECTRONICS MARKET, BY REGION, 2017–2020 (USD MILLION)

TABLE 103 PRINTED ELECTRONICS MARKET, BY REGION, 2021–2026 (USD MILLION)

### 12.2 APAC

FIGURE 56 APAC: PRINTED ELECTRONICS MARKET SNAPSHOT

TABLE 104 APAC PRINTED ELECTRONICS MARKET, BY APPLICATION, 2017–2020 (USD MILLION)

TABLE 105 APAC PRINTED ELECTRONICS MARKET, BY APPLICATION, 2021–2026 (USD MILLION)

TABLE 106 APAC PRINTED ELECTRONICS MARKET, BY END-USE INDUSTRY, 2017–2020 (USD MILLION)

TABLE 107 APAC PRINTED ELECTRONICS MARKET, BY END-USE INDUSTRY, 2021–2026 (USD MILLION)

FIGURE 57 CHINA TO CAPTURE MAJOR SHARE OF APAC PRINTED ELECTRONICS MARKET IN 2020 (USD MILLION)

TABLE 108 APAC PRINTED ELECTRONICS MARKET, BY COUNTRY, 2017–2020 (USD MILLION)

TABLE 109 APAC PRINTED ELECTRONICS MARKET, BY COUNTRY, 2021–2026 (USD MILLION)

TABLE 110 APAC PRINTED ELECTRONICS MARKET FOR SENSORS, BY COUNTRY, 2017–2020 (USD MILLION)

TABLE 111 APAC PRINTED ELECTRONICS MARKET FOR SENSORS, BY COUNTRY, 2021–2026 (USD MILLION)

TABLE 112 APAC PRINTED ELECTRONICS MARKET FOR DISPLAYS, BY COUNTRY, 2017–2020 (USD MILLION)

TABLE 113 APAC PRINTED ELECTRONICS MARKET FOR DISPLAYS, BY COUNTRY, 2021–2026 (USD MILLION)

TABLE 114 APAC PRINTED ELECTRONICS MARKET FOR BATTERIES, BY COUNTRY, 2017–2020 (USD MILLION)

TABLE 115 APAC PRINTED ELECTRONICS MARKET FOR BATTERIES, BY COUNTRY, 2021–2026 (USD MILLION)

TABLE 116 APAC PRINTED ELECTRONICS MARKET FOR RFID TAGS, BY COUNTRY, 2017–2020 (USD MILLION)

TABLE 117 APAC PRINTED ELECTRONICS MARKET FOR RFID TAGS, BY COUNTRY, 2021–2026 (USD MILLION)

TABLE 118 APAC PRINTED ELECTRONICS MARKET FOR LIGHTING, BY COUNTRY, 2017–2020 (USD MILLION)

TABLE 119 APAC PRINTED ELECTRONICS MARKET FOR LIGHTING, BY COUNTRY, 2021–2026 (USD MILLION)

TABLE 120 APAC PRINTED ELECTRONICS MARKET FOR PV CELLS, BY COUNTRY, 2017–2020 (USD MILLION)

TABLE 121 APAC PRINTED ELECTRONICS MARKET FOR PV CELLS, BY COUNTRY, 2021–2026 (USD MILLION)

TABLE 122 APAC PRINTED ELECTRONICS MARKET FOR OTHER APPLICATIONS, BY COUNTRY, 2017–2020 (USD MILLION)

TABLE 123 APAC PRINTED ELECTRONICS MARKET FOR OTHER APPLICATIONS, BY COUNTRY, 2021–2026 (USD MILLION)

#### 12.2.1 CHINA

12.2.1.1 Growth in automotive and consumer electronics industry to propel demand for printed electronics

#### 12.2.2 AUSTRALIA

12.2.2.1 Increased R&D activities into printed electronics to boost market growth in Australia

#### 12.2.3 JAPAN

12.2.3.1 Presence of numerous printed electronics consumers is supporting market growth in Japan

#### 12.2.4 SOUTH KOREA

12.2.4.1 Flourishing consumer electronics industry and presence of key manufacturers of printed electronics fueling market growth in South Korea

#### 12.2.5 REST OF APAC

### 12.3 AMERICAS

FIGURE 58 AMERICAS: PRINTED ELECTRONICS MARKET SNAPSHOT

TABLE 124 AMERICAS PRINTED ELECTRONICS MARKET, BY APPLICATION, 2017–2020 (USD MILLION)

TABLE 125 AMERICAS PRINTED ELECTRONICS MARKET, BY APPLICATION, 2021–2026 (USD MILLION)

TABLE 126 AMERICAS PRINTED ELECTRONICS MARKET, BY END-USE INDUSTRY, 2017–2020 (USD MILLION)

TABLE 127 AMERICAS PRINTED ELECTRONICS MARKET, BY END-USE INDUSTRY, 2021–2026 (USD MILLION)

FIGURE 59 NORTH AMERICA TO CAPTURE MAJOR SHARE OF AMERICAS PRINTED ELECTRONICS MARKET IN 2020 (USD MILLION)

TABLE 128 AMERICAS PRINTED ELECTRONICS MARKET, BY REGION, 2017–2020 (USD MILLION)

TABLE 129 AMERICAS PRINTED ELECTRONICS MARKET, BY REGION, 2021–2026 (USD MILLION)

TABLE 130 AMERICAS PRINTED ELECTRONICS MARKET FOR SENSORS, BY GEOGRAPHY, 2017–2020 (USD MILLION)

TABLE 131 AMERICAS PRINTED ELECTRONICS MARKET FOR SENSORS, BY GEOGRAPHY, 2021–2026 (USD MILLION)

TABLE 132 AMERICAS PRINTED ELECTRONICS MARKET FOR DISPLAYS, BY GEOGRAPHY, 2017–2020 (USD MILLION)

TABLE 133 AMERICAS PRINTED ELECTRONICS MARKET FOR DISPLAYS, BY GEOGRAPHY, 2021–2026 (USD MILLION)

TABLE 134 AMERICAS PRINTED ELECTRONICS MARKET FOR BATTERIES, BY GEOGRAPHY, 2017–2020 (USD MILLION)

TABLE 135 AMERICAS PRINTED ELECTRONICS MARKET FOR BATTERIES, BY

GEOGRAPHY, 2021–2026 (USD MILLION)

TABLE 136 AMERICAS PRINTED ELECTRONICS MARKET FOR RFID TAGS, BY GEOGRAPHY, 2017–2020 (USD MILLION)

TABLE 137 AMERICAS PRINTED ELECTRONICS MARKET FOR RFID TAGS, BY GEOGRAPHY, 2021–2026 (USD MILLION)

TABLE 138 AMERICAS PRINTED ELECTRONICS MARKET FOR LIGHTING, BY GEOGRAPHY, 2017–2020 (USD MILLION)

TABLE 139 AMERICAS PRINTED ELECTRONICS MARKET FOR LIGHTING, BY GEOGRAPHY, 2021–2026 (USD MILLION)

TABLE 140 AMERICAS PRINTED ELECTRONICS MARKET FOR PV CELLS, BY GEOGRAPHY, 2017–2020 (USD MILLION)

TABLE 141 AMERICAS PRINTED ELECTRONICS MARKET FOR PV CELLS, BY GEOGRAPHY, 2021–2026 (USD MILLION)

TABLE 142 AMERICAS PRINTED ELECTRONICS MARKET FOR OTHER APPLICATIONS, BY GEOGRAPHY, 2017–2020 (USD MILLION)

TABLE 143 AMERICAS PRINTED ELECTRONICS MARKET FOR OTHER APPLICATIONS, BY GEOGRAPHY, 2021–2026 (USD MILLION)

#### 12.3.1 NORTH AMERICA

TABLE 144 NORTH AMERICA PRINTED ELECTRONICS MARKET, BY COUNTRY, 2017–2020 (USD MILLION)

TABLE 145 NORTH AMERICA PRINTED ELECTRONICS MARKET, BY COUNTRY, 2021–2026 (USD MILLION)

##### 12.3.1.1 US

12.3.1.1.1 US to dominate printed electronics market in North America

##### 12.3.1.2 Canada

12.3.1.2.1 Numerous initiatives taken by government and non-government institutions to support market growth in Canada

##### 12.3.1.3 Mexico

12.3.1.3.1 Increase in automotive production and export to fuel demand for printed electronic devices

#### 12.3.2 SOUTH AMERICA

12.3.2.1 Increasing demand for printed electronics in automotive and transportation applications creates market opportunities

#### 12.4 EUROPE

FIGURE 60 EUROPE: PRINTED ELECTRONICS MARKET SNAPSHOT

FIGURE 61 DISPLAYS TO CAPTURE MAJOR SHARE OF EUROPE PRINTED ELECTRONICS MARKET IN 2020 (USD MILLION)

TABLE 146 EUROPE PRINTED ELECTRONICS MARKET, BY APPLICATION, 2017–2020 (USD MILLION)



TABLE 147 EUROPE PRINTED ELECTRONICS MARKET, BY APPLICATION,  
2021–2026 (USD MILLION)

TABLE 148 EUROPE PRINTED ELECTRONICS MARKET, BY END-USE INDUSTRY,  
2017–2020 (USD MILLION)

TABLE 149 EUROPE PRINTED ELECTRONICS MARKET, BY END-USE INDUSTRY,  
2021–2026 (USD MILLION)

TABLE 150 EUROPE PRINTED ELECTRONICS MARKET, BY COUNTRY, 2017–2020  
(USD MILLION)

TABLE 151 EUROPE PRINTED ELECTRONICS MARKET, BY COUNTRY, 2021–2026  
(USD MILLION)

TABLE 152 EUROPE PRINTED ELECTRONICS MARKET FOR SENSORS, BY  
COUNTRY, 2017–2020 (USD MILLION)

TABLE 153 EUROPE PRINTED ELECTRONICS MARKET FOR SENSORS, BY  
COUNTRY, 2021–2026 (USD MILLION)

TABLE 154 EUROPE PRINTED ELECTRONICS MARKET FOR DISPLAYS, BY  
COUNTRY, 2017–2020 (USD MILLION)

TABLE 155 EUROPE PRINTED ELECTRONICS MARKET FOR DISPLAYS, BY  
COUNTRY, 2021–2026 (USD MILLION)

TABLE 156 EUROPE PRINTED ELECTRONICS MARKET FOR BATTERIES, BY  
COUNTRY, 2017–2020 (USD MILLION)

TABLE 157 EUROPE PRINTED ELECTRONICS MARKET FOR BATTERIES, BY  
COUNTRY, 2021–2026 (USD MILLION)

TABLE 158 EUROPE PRINTED ELECTRONICS MARKET FOR RFID TAGS, BY  
COUNTRY, 2017–2020 (USD MILLION)

TABLE 159 EUROPE PRINTED ELECTRONICS MARKET FOR RFID TAGS, BY  
COUNTRY, 2021–2026 (USD MILLION)

TABLE 160 EUROPE PRINTED ELECTRONICS MARKET FOR LIGHTING, BY  
COUNTRY, 2017–2020 (USD MILLION)

TABLE 161 EUROPE PRINTED ELECTRONICS MARKET FOR LIGHTING, BY  
COUNTRY, 2021–2026 (USD MILLION)

TABLE 162 EUROPE PRINTED ELECTRONICS MARKET FOR PV CELLS, BY  
COUNTRY, 2017–2020 (USD MILLION)

TABLE 163 EUROPE PRINTED ELECTRONICS MARKET FOR PV CELLS, BY  
COUNTRY, 2021–2026 (USD MILLION)

TABLE 164 EUROPE PRINTED ELECTRONICS MARKET FOR OTHER  
APPLICATIONS, BY COUNTRY, 2017–2020 (USD MILLION)

TABLE 165 EUROPE PRINTED ELECTRONICS MARKET FOR OTHER  
APPLICATIONS, BY COUNTRY, 2021–2026 (USD MILLION)

#### 12.4.1 GERMANY



12.4.1.1 Technological innovations related to automotive industry driving market growth

#### 12.4.2 FRANCE

12.4.2.1 Surged demand for electric vehicles in France to spur growth of printed electronics market

#### 12.4.3 UK

12.4.3.1 Robust economy and significant funding from public and private authorized bodies are responsible for market growth

#### 12.4.4 REST OF EUROPE

### 12.5 ROW

TABLE 166 ROW PRINTED ELECTRONICS MARKET, BY APPLICATION, 2017–2020 (USD MILLION)

TABLE 167 ROW PRINTED ELECTRONICS MARKET, BY APPLICATION, 2021–2026 (USD MILLION)

TABLE 168 ROW PRINTED ELECTRONICS MARKET, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 169 ROW PRINTED ELECTRONICS MARKET, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

FIGURE 62 MIDDLE EAST TO CAPTURE MAJOR SHARE OF ROW PRINTED ELECTRONICS MARKET IN 2020 (USD MILLION)

TABLE 170 ROW PRINTED ELECTRONICS MARKET, BY REGION, 2017–2020 (USD MILLION)

TABLE 171 ROW PRINTED ELECTRONICS MARKET, BY REGION, 2021–2026 (USD MILLION)

TABLE 172 ROW PRINTED ELECTRONICS MARKET FOR SENSORS, BY REGION, 2017–2020 (USD MILLION)

TABLE 173 ROW PRINTED ELECTRONICS MARKET FOR SENSORS, BY REGION, 2021–2026 (USD MILLION)

TABLE 174 ROW PRINTED ELECTRONICS MARKET FOR DISPLAYS, BY REGION, 2017–2020 (USD MILLION)

TABLE 175 ROW PRINTED ELECTRONICS MARKET FOR DISPLAYS, BY REGION, 2021–2026 (USD MILLION)

TABLE 176 ROW PRINTED ELECTRONICS MARKET FOR BATTERIES, BY REGION, 2017–2020 (USD THOUSAND)

TABLE 177 ROW PRINTED ELECTRONICS MARKET FOR BATTERIES, BY REGION, 2021–2026 (USD THOUSAND)

TABLE 178 ROW PRINTED ELECTRONICS MARKET FOR RFID TAGS, BY REGION, 2017–2020 (USD THOUSAND)

TABLE 179 ROW PRINTED ELECTRONICS MARKET FOR RFID TAGS, BY REGION,

2021–2026 (USD THOUSAND)

TABLE 180 ROW PRINTED ELECTRONICS MARKET FOR LIGHTING, BY REGION,  
2017–2020 (USD THOUSAND)

TABLE 181 ROW PRINTED ELECTRONICS MARKET FOR LIGHTING, BY REGION,  
2021–2026 (USD THOUSAND)

TABLE 182 ROW PRINTED ELECTRONICS MARKET FOR PV CELLS, BY REGION,  
2017–2020 (USD THOUSAND)

TABLE 183 ROW PRINTED ELECTRONICS MARKET FOR PV CELLS, BY REGION,  
2021–2026 (USD THOUSAND)

TABLE 184 ROW PRINTED ELECTRONICS MARKET FOR OTHER APPLICATIONS,  
BY REGION, 2017–2020 (USD MILLION)

TABLE 185 ROW PRINTED ELECTRONICS MARKET FOR OTHER APPLICATIONS,  
BY REGION, 2021–2026 (USD MILLION)

#### 12.5.1 MIDDLE EAST

12.5.1.1 Increased customer awareness—ongoing trend for innovative technologies is expected to drive market growth

#### 12.5.2 AFRICA

12.5.2.1 Increased production of electronic components and devices is expected to fuel market growth in Africa

## 13 COMPETITIVE LANDSCAPE

### 13.1 OVERVIEW

#### 13.2 MARKET EVALUATION FRAMEWORK

TABLE 186 OVERVIEW OF STRATEGIES DEPLOYED BY KEY PRINTED  
ELECTRONIC SOLUTIONS MANUFACTURING COMPANIES

##### 13.2.1 PRODUCT PORTFOLIO

##### 13.2.2 REGIONAL FOCUS

##### 13.2.3 MANUFACTURING FOOTPRINT

##### 13.2.4 ORGANIC/INORGANIC STRATEGIES

### 13.3 MARKET SHARE ANALYSIS, 2020

TABLE 187 PRINTED ELECTRONICS MARKET: MARKET SHARE ANALYSIS (2020)

### 13.4 FIVE-YEAR COMPANY REVENUE ANALYSIS

FIGURE 63 FIVE-YEAR REVENUE ANALYSIS OF THE TOP FIVE MARKET  
PLAYERS, 2016–2020

### 13.5 COMPANY EVALUATION QUADRANT

#### 13.5.1 STARS

#### 13.5.2 EMERGING LEADERS

#### 13.5.3 PERVASIVE PLAYERS

#### 13.5.4 PARTICIPANTS

FIGURE 64 PRINTED ELECTRONICS MARKET: COMPANY EVALUATION QUADRANT, 2020

#### 13.6 START-UP/SME EVALUATION MATRIX

TABLE 188 START-UPS/SMES IN THE PRINTED ELECTRONICS MARKET

##### 13.6.1 PROGRESSIVE COMPANIES

##### 13.6.2 RESPONSIVE COMPANIES

##### 13.6.3 DYNAMIC COMPANIES

##### 13.6.4 STARTING BLOCKS

FIGURE 65 PRINTED ELECTRONICS MARKET: START-UP/SME EVALUATION MATRIX, 2020

#### 13.7 COMPANY FOOTPRINT

TABLE 189 COMPANY FOOTPRINT

TABLE 190 COMPANY APPLICATION FOOTPRINT

TABLE 191 COMPANY END-USE INDUSTRY FOOTPRINT

TABLE 192 COMPANY REGION FOOTPRINT

#### 13.8 COMPETITIVE SITUATIONS AND TRENDS

##### 13.8.1 PRODUCT LAUNCHES

TABLE 193 PRODUCT LAUNCHES, JANUARY 2019–DECEMBER 2021

##### 13.8.2 DEALS

TABLE 194 DEALS, JANUARY 2019–DECEMBER 2021

##### 13.8.3 OTHERS

TABLE 195 EXPANSIONS, JANUARY 2019–DECEMBER 2021

## 14 COMPANY PROFILES

### 14.1 KEY PLAYERS

(Business overview, Products/solutions offered, Recent developments, Product launches, MNM view, Key strengths/right to win, Strategic choices made, and Weaknesses and competitive threats)\*

#### 14.1.1 SAMSUNG ELECTRONICS CO., LTD.

TABLE 196 SAMSUNG ELECTRONICS CO., LTD.: BUSINESS OVERVIEW

FIGURE 66 SAMSUNG ELECTRONICS CO. LTD.: COMPANY SNAPSHOT

#### 14.1.2 LG DISPLAY CO., LTD.

TABLE 197 LG DISPLAY CO., LTD.: BUSINESS OVERVIEW

FIGURE 67 LG DISPLAY CO., LTD.: COMPANY SNAPSHOT

#### 14.1.3 MOLEX, LLC

TABLE 198 MOLEX, LLC: BUSINESS OVERVIEW

#### 14.1.4 AGFA-GEVAERT GROUP

TABLE 199 AGFA-GEVAERT GROUP: BUSINESS OVERVIEW

FIGURE 68 AGFA-GEVAERT GROUP: COMPANY SNAPSHOT

14.1.5 PALO ALTO RESEARCH CENTER INCORPORATED (PARC)

TABLE 200 PALO ALTO RESEARCH CENTER INCORPORATED: BUSINESS OVERVIEW

14.1.6 NISSHA CO., LTD.

TABLE 201 NISSHA CO., LTD.: BUSINESS OVERVIEW

FIGURE 69 NISSHA CO., LTD.: COMPANY SNAPSHOT

14.1.7 DUPONT

TABLE 202 DUPONT: BUSINESS OVERVIEW

FIGURE 70 DUPONT: COMPANY SNAPSHOT

14.1.8 BASF

TABLE 203 BASF: BUSINESS OVERVIEW

FIGURE 71 BASF: COMPANY SNAPSHOT

14.1.9 NOVACENTRIX

TABLE 204 NOVACENTRIX: BUSINESS OVERVIEW

14.1.10 E INK HOLDINGS INC.

TABLE 205 E INK HOLDINGS INC.: BUSINESS OVERVIEW

FIGURE 72 E INK HOLDINGS INC.: COMPANY SNAPSHOT

14.2 OTHER KEY PLAYERS

14.2.1 YNVISIBLE INTERACTIVE INC.

14.2.2 JABIL INC.

14.2.3 OPTOMECH, INC.

14.2.4 CAMBRIDGE DISPLAY TECHNOLOGY, LTD.

14.2.5 PRINTED ELECTRONICS LIMITED

14.2.6 APPLIED INK SOLUTIONS

14.2.7 ENFUCCELL

14.2.8 ENSURGE MICROPOWER ASA

14.2.9 VORBECK MATERIALS CORP.

14.2.10 T-INK, INC.

\*Details on Business overview, Products/solutions offered, Recent developments, Product launches, MNM view, Key strengths/right to win, Strategic choices made, and Weaknesses and competitive threats might not be captured in case of unlisted companies.

## **15 APPENDIX**

15.1 DISCUSSION GUIDE

15.2 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL

15.3 AVAILABLE CUSTOMIZATIONS

15.4 RELATED REPORTS

15.5 AUTHOR DETAILS

## I would like to order

Product name: Printed Electronics Market with COVID-19 Impact Analysis by Printing Technology (Screen Printing, Inkjet Printing), Application (Displays, PV Cells), Resolution, Material (Inks, Substrates), End-use Industry, and Geography - Global Forecast to 2026

Product link: <https://marketpublishers.com/r/P2E7031C9C4EN.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](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/P2E7031C9C4EN.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