

The Global Market for Printed and Flexible Electronics 2024-2034

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Abstracts

Printed and flexible electronics are shaping the future. Due to advancements in materials science, printing technology, and other additive manufacturing processes, product designers can now leverage flexible electronics' many benefits without sacrificing capabilities and functionality. Flexible hybrid electronics (FHE) that combine flexible substrates and low-cost functional ink printing with other traditional components are leading to innovative form factors and product differentiation, including smaller devices, improved comfort for users, and lightweighting.

The Global Market for Printed and Flexible Electronics 2024-2034 provides an in-depth analysis of the global printed, flexible, stretchable and hybrid electronics industry. The report analyses the overall industry landscape including macro trends, latest technical and commercial developments, products, key enabling technologies like sensors, displays, circuits, materials etc. It provides a comparative analysis of manufacturing techniques like screen printing, inkjet printing, 3D printing, roll-to-roll processing etc.

In-depth demand analysis is provided across several verticals:

Consumer Electronics: wearables, hearables, sports/fitness monitors etc.

Medical & Healthcare: electronic skin patches, continuous glucose monitors, remote patient monitoring, drug delivery, prosthetics etc.

Automotive: HMI, sensors, lighting, battery monitoring, EV range enhancement etc.

Smart Buildings & Construction: HVAC, lighting, asset tracking etc.

Smart Packaging: freshness indicators, track & trace, anti-counterfeiting etc.

E-textiles and apparel: temperature monitoring & regulation, stretchable E-fabrics, therapeutic textiles, sports & fitness, smart footwear, wearable displays, smart gloves etc.

Displays: Flexible and foldable displays, Micro-LEDs, lighting etc.

Additionally, the report analyses the flexible, printed and solid-state battery markets for electronics. It also explores latest advances in flexible photovoltaics, wireless charging, energy harvesting for powering flexible and wearable devices. The report provides a deep dive into the global printed, flexible and hybrid electronics industry with a detailed value chain analysis and benchmarking of over 15 manufacturing methods like screen, inkjet, gravure, flexographic printing, laser processing, photolithography, full 3D printing etc.

Over 50 key enabling materials and components are explored in detail spanning substrates, conductive materials, inks, printable semiconductors, thin film batteries, photovoltaics, lighting solutions etc. Trends in sustainability, biodegradability and recycling of flexible electronics are also analyzed.

On the demand side, the study provides granular ten-year forecasts by 24 key end-use applications and over a dozen vertical markets. For instance, in medical electronics, market revenues are segmented by continuous glucose monitors, cardiovascular monitors, wearable drug delivery devices, electronic skin patches, flexible displays, exoskeletons etc.

For automotive, forecast demand is quantified for sensors, lighting, EV range enhancement, HMI etc. The report also analyzes the integration of printed electronics in smart infrastructure across buildings, factories, warehouses, airports, retail spaces etc. and the key technologies powering this shift.

Emerging areas like the metaverse, flexible OLED lighting, transparent antennas, heaters, biomonitoring and assistive wearables have also been covered.

On the supply side, the report profiles 800+ manufacturers and developers of printed flexible electronics across sensors, batteries, PV, substrates, wearables, medical

devices etc. Latest product launches, partnerships, pilot plants and production capacities are tracked for each company. Companies profiled include BeFC, Brewer Science, C3 Nano, Canatu, CHASM, Dracula Technologies, DuPont, e2ip Technologies, Electroniks, Elephantech, Epicore Biosystems, FlexEnable, Fuji Corporation, GE Healthcare, Heraeus Epurio, Inkron Oy (Nagase), Inuru, Japan Display, Inc. (JDI), LG Display, Liquid Wire, Myrias Optics, NovaCentrix, Optomec, Panasonic, PowerON, Pragmatic Semiconductor, Printoptix, PVNanoCell, SmartKem Ltd., Syenta, tacterion GmbH, Tactotek, TracXon, Voltera, Xymox Technologies, Inc. and Ynvisible.

Backed by over 250 tables and 500 figures, the report provides historic revenues from 2018-2022 and market forecasts up to 2034 by technology, components, products, regions and application sectors.

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