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CONTRACT MANUFACTURING OPPORTUNITIES IN PRINTED ELECTRONICS

2013 Edition

A Comprehensive Study on the Worldwide Market for Contract Manufacturing of Printed Electronics

Report Highlights

- Printed Electronics Technology Analysis
  - Printer Manufacturing Equipment Market Size
  - Electronic Material and Thin Film Market Size
- Worldwide Printed Electronics Market Analysis, 2012
  - Leading Products and Applications
  - Analysis by 10 Industry Segments
  - Functional Commercial Products
  - 10 Industry Segments
  - 40 Leading Market Applications
- Company Profiles (185 Printed Electronics Firms)
  - Equipment Companies/Suppliers
  - Materials Companies/Suppliers
  - Solution/Integration Companies/Suppliers
The worldwide printed electronics (PE) market has been over-hyped and inaccurately forecast for over a decade. Yet PE still holds much potential and is now starting to show promise and commercialization. New Venture Research (NVR) has been following this emerging market for the last five years and the contract electronic manufacturing services market for more than 20 years. As a result of our extensive industry contacts and recent field interviews in PE, NVR is in a position to put a realistic stake in the ground with regard to the leading PE market applications and their potential for future growth.

This latest report — Contract Manufacturing Opportunities in Printed Electronics - 2013 Edition — is a comprehensive market analysis of emerging PE technologies and applications, and leverages our in-depth database of contract electronics manufacturing services (EMS) suppliers and markets built up over the past two decades. EMS suppliers are the best positioned to capitalize on the most promising PE opportunities, of which we have identified over 40 leading application areas. This report analyzes the highest potential products by end customer that stand to win out over traditional semiconductor and material technologies. This is because PE is creating a standalone market of its own as well as displacing some traditional semiconductor electronics. Certain market applications have clear economic and commercial advantages over the next five years (the only period that can be reasonably forecast).

Chapter 3 begins with a technical analysis of the most popular material technologies including organic and inorganic thin film transistors and other forms of printable circuits. The chapter moves on to discuss the various kinds of equipment that are used to print and layer these thin films, especially ink jet and screen printer technology which are used for the majority of PE applications today. A summary of the total equipment market by revenue is provided for 2012. The section concludes with an examination of substrates and the field of e-paper and related displays.

Chapter 4 explores and analyzes the PE market for conductive inks and thin films. Currently, the vast majority of conductive materials are composed of silver flake along with corresponding dielectrics for insulation. Other materials such as carbon/graphene, copper, gold, platinum, and carbon nanotube/silver/copper nanowire are explored. A table of all the worldwide conductive inks is summarized in terms of revenue for 2012 along with a table of conductive inks by industry segment.

Chapter 5 identifies and explores the leading product applications for PE products among ten industry segments and in context with the entire contract manufacturing market. Leading product applications are analyzed for both traditional electronics assembly and advanced PE manufacturing production.

Chapter 6 forecasts the future for PE products for 40 different product applications, contrasting the highest potential PE products against traditional semiconductor electronics. All PE product applications are summarized in this chapter, including a ranking of the strongest markets in descending order of growth. The highest growth markets are projected to expand over 125% CAGR, while others are as low as only 5% CAGR, from 2012-2017. Overall, the market for PE products will triple over the next five years, reaching nearly $10 billion in assembly revenue value by 2017.

Chapter 7 analyzes the leading PE companies and suppliers in three ways – equipment manufacturers, advanced materials/thin film providers, and solution/integration companies that develop technical solutions or can successfully integrate one or more PE technologies. In all, 185 PE companies are profiled in this report and are organized according to category.

Contract Manufacturing Opportunities in Printed Electronics - 2013 Edition is the product of hundreds of hours of research and sells for $2495 with a single-user license (additional licenses are $250, corporate licensing is $1000). This report is available in PDF format only and is delivered by email. An Excel spreadsheet of all data and tables is available for an additional $750.
Chapter 1: Introduction

Objectives
Organization
Methodology

Chapter 2: Executive Summary

EMS Market and Forecast
PE Industry Market Forecast
PE Market Application Forecast

Chapter 3: PE Technology Analysis

Organic and Thin Film Technology
  Organic Transistors
  Polymer Electronics
  Inorganic Materials and Composites
  Inorganic Transistors
  Printable Electronics
PE Manufacturing Equipment
  Flexography
  Gravure
  Inkjet
  Off-set Lithography
  Screen printing
  Substrates
  E-Paper and Displays

Chapter 4: PE Materials Market, 2012

Conductive Inks
Conductive Films
Microcapsules
Organic/inorganic transistors, polymers, et al
Nanoparticles

Chapter 5: PE Market Applications, 2012

The Worldwide Contract Manufacturing Services Market
Consumer Electronics
Displays and Lighting
  Technical Issues
  Display Applications
  Non-Emissive Displays
Medical
Packaging
  Technical Issues
  Packaging/Label Applications
Photovoltaics’s (PV)
  Technical Issues
  PV Market Applications
Printed Circuit Boards (PCBs)
Radio Frequency Identification (RFID)
  Technical Issues
  RFID Market Applications
Textiles/Clothing
Transportation
Other
PE Market Summary

Chapter 6: PE Market Forecasts

PE for Consumer Electronics, 2012-2017
PE for Displays and Lighting, 2012-2017
PE for Medical Products, 2012-2017
PE for Packaging, 2012-2017
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Solution/Integration Companies:
- Add-Vision
- Ascend Solar
- AVANCIS
- Aveso
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337 Clay St., Suite 101
Nevada City, CA 95959
Tel: (408) 244-1100 Fax: (408) 864-2138
www.newventureresearch.com; kwilliams@newventureresearch.com

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