

Thick Film Devices, Processes and Applications

https://marketpublishers.com/r/TEEC1CD85F7EN.html

Date: October 2017

Pages: 137

Price: US\$ 2,750.00 (Single User License)

ID: TEEC1CD85F7EN

Abstracts

Get an updated review of various types of thick film devices & their fabrication processes, and identifies current and emerging applications for these products.



Contents

CHAPTER 1: INTRODUCTION

Study Goals and Objectives
Reasons for Doing This Study
Intended Audience
Scope of Report
Methodology and Information Sources
Market Breakdown
Analyst's Credentials
Related BCC Research Reports

CHAPTER 2: SUMMARY AND HIGHLIGHTS

CHAPTER 3: MARKET AND TECHNOLOGY BACKGROUND

Coatings and Films
Thick, Thin, Nano and Ultrathin Films
Milestones in the History of Thick Film Processing and Devices
Types and Applications of Thick Film Devices
Electronic Devices
Optoelectronic Devices
Energy Devices
Sensors and Actuators

CHAPTER 4: TECHNOLOGY

Introduction

Thick Film Technologies

Thick Film Device Fabrication

Substrate Selection

Thick Film Deposition and Patterning

Drying, Curing and Sintering

Finishing and Packaging

Thick Film Devices and Technological Trends

Electronic Devices

Optoelectronic Devices

Energy Devices



Sensors and Actuators
Latest Technological Developments, 2015 to Present48
Granule Spray in Vacuum
Glass-free Copper Ink
Ultrasound-assisted Hydrothermal Deposition
Multistage Thermoelectric Cooler
Other Relevant R&D Activities

CHAPTER 5: GLOBAL MARKETS

Analysis Outline

Global Market Summary

Current Market Status

Market by Device Category

Market by Type

Market by Application

Market by Region

Market Growth Trends

Industry Growth

Industry Trends

Regional Trends

Market by Device Category

Market by Type

Market by Application

Market by Region

CHAPTER 6: GLOBAL INDUSTRY STRUCTURE

Leading Manufacturers of Thick Film Devices Other Industry Players Company Profiles

CHAPTER 7: PATENT ANALYSIS

Introduction
Summary of Recently Awarded Patents
General Trends
Trends by Country and Region
Trend by Assignee



Trends by Patent Category149
Trends by Device Type
About BCC Research
About BCC Research153
BCC Membership
BCC Custom Research



List Of Tables

LIST OF TABLES

Summary Table: Global Market for Thick Film Devices, by Category, Through 2022 (\$ Millions)14

Table 1 Technological Milestones for Thick Film Processing and Devices

Table 2 Types of Thick Film Devices

Table 3 Applications for Electronic Devices, 2017

Table 4 Applications for Optoelectronic Devices, 2017

Table 5 Applications for Energy Devices, 2017

Table 6 Applications for Sensors and Actuators, 2017

Table 7 Thick Film Technologies, 2017

Table 8 Typical Substrate Materials for Thick Film Devices, 2017

Table 9 Typical Deposition Materials for Thick Film Devices, 2017

Table 10 Main Technological Trends Related to Electronic Devices

Table 11 Main Technological Trends related to Optoelectronic Devices

Table 12 Main Technological Trends Related to Energy Devices

Table 13 Main Technological Trends Related to Sensors and Actuators

Table 14 Other Relevant R&D Activities

Table 15 Global Market for Thick Film Devices, by Category, Through 2022 (\$ Millions)

Table 16 Global Market for Thick Film Devices, by Category, Through 2017 (\$ Millions)

Table 17 Global Market for Thick Film Energy Devices, by Type, Through 2017 (\$ Millions)

Table 18 Global Market for Thick Film Electronic Devices, by Type, Through 2017 (\$ Millions)

Table 19 Global Market for Thick Film Optoelectronic Devices, by Type, Through 2017 (\$ Millions)

Table 20 Global Market for Thick Film Sensors and Actuators, by Type, Through 2017 (\$ Millions)

Table 21 Global Market for Thick Film Devices, by Application, Through 2017 (\$ Millions)

Table 22 Global Market for Thick Film Devices, by Region, Through 2017 (\$ Millions)

Table 23 Global Production of Energy, by Type, Through 2022 (Mtoe)

Table 24 Global Production of Photovoltaic Modules, by Type, Through 2022 (GW)

Table 25 Global Market for Semiconductors, by Region, Through 2022 (\$ Billions)

Table 26 Global Market for Broadband and Wireless Communications Systems, by

Type, Through 2022 (\$ Billions)

Table 27 Global Market for Household Consumer Products, by Type, Through 2022 (\$



Billions)

Table 28 Global Market for Displays, by Type, Through 2022 (\$ Billions)

Table 29 Global Market for Automotive Electronic Controls, by Type, Through 2022 (\$ Billions)

Table 30 Global Market for Computers, Smartphones and Peripherals, by Type, Through 2022 (Millions of Units)

Table 31 Global Market for Medical Devices and Implants, by Type, Through 2022 (\$ Billions)

Table 32 Global Market for Patient Monitoring, Diagnostic and Therapy, by Type, Through 2022 (\$ Billions)

Table 33 Global Market for Medical Imaging and Instrumentation, by Type, Through 2022 (\$ Billions)

Table 34 Global Market for Medical Electronics, by Type, Through 2022 (\$ Billions)

Table 35 Global Market for Industrial Controls, by Type, Through 2022 (\$ Billions)

Table 36 Global Market for Sensors, by Type, Through 2022 (\$ Billions)

Table 37 Global Market for the Aerospace Industry, by Region, Through 2022 (\$Billions)89

Table 38 Global Market for Thick Film Devices, by Category, Through 2022 (\$ Millions)

Table 39 Global Market for Thick Film Energy Devices, by Type, Through 2022 (\$ Millions)

Table 40 Global Market for Thick Film Electronic Devices, by Type, Through 2022 (\$ Millions)

Table 41 Global Market for Thick Film Optoelectronic Devices, by Type, Through 2022 (\$ Millions)

Table 42 Global Market for Thick Film Sensors and Actuators, by Type, Through 2022 (\$ Millions)

Table 43 Global Market for Thick Film Devices, by Application, Through 2022 (\$ Millions)

Table 44 Global Market for Thick Film Devices, by Region, Through 2022 (\$ Millions)

Table 45 Leading Manufacturers of Thick Film Devices, 2017

Table 46 Leading Manufacturers by Product Type, 2017

Table 47 Leading Manufacturers of Thick Film Devices, by Product Type and Region (Number)

Table 48 Other Industry Players

Table 49 Thick Film Devices – U.S. Patents, 2017

Table 50 U.S. Patent Trends for Thick Film Devices, Through 2017 (Number)

Table 51 Assignees of U.S. Patent related to Thick Film Devices, 2017 (Number)



List Of Figures

LIST OF FIGURES

Summary Figure: Global Market for Thick Film Devices, by Category, 2015-2022 (\$ Millions)

Figure 1 Global Market Share for Thick, Thin, and Nanofilms, by Type, 2017 (%)17

Figure 2 Thick Film Devices: Worldwide Patent Applications and Patents Issued, 1970-2016 (Number)

Figure 3 Thick Film Types Based on Fabrication Process

Figure 4 Basic Construction Steps of a Thick Film Device

Figure 5 Global Market for Thick Film Devices, by Category, 2015-2022 (\$ Millions)

Figure 6 Global Market Share for Thick Film Devices, by Category, 2017 (%)58

Figure 7 Global Market Share for Thick Film Energy Devices, by Type, 2017 (%)60

Figure 8 Global Market Share for Thick Film Electronic Devices, by Type, 2017 (%)61

Figure 9 Global Market Share for Thick Film Optoelectronic Devices, by Type, 2017 (%)62

Figure 10 Global Market Share for Thick Film Sensors and Actuators, by Type, 2017 (%)64

Figure 11 Global Market Share for Thick Film Devices, by Application, 2017 (%)66

Figure 12 Global Market Share for Thick Film Devices, by Region, 2017 (%)67

Figure 13 Global Production Share for Energy, by Type, 2022 (%)69

Figure 14 Global Production Share for Photovoltaic Modules, by Type, 2022 (%)71

Figure 15 Global Market Share for Semiconductors, by Region, 2022 (%)72

Figure 16 Global Market Share for Broadband and Wireless Communications Systems, by Type, 2022 (%)73

Figure 17 Global Market Share for Household Consumer Products, by Type, 2022 (%)75

Figure 18 Global Market Share for Displays, by Type, 2022 (%)76

Figure 19 Global Market Share for Automotive Electronic Controls, by Type, 2022 (%)78

Figure 20 Global Market Share for Computers, Smartphones and Peripherals, by Type, 2022 (%)80

Figure 21 Global Market Share for Medical Devices and Implants, by Type, 2022 (%)81

Figure 22 Global Market Share for Patient Monitoring, Diagnostic and Therapy, by Type, 2022 (%)83

Figure 23 Global Market Share for Medical Imaging and Instrumentation, by Type, 2022 (%)84

Figure 24 Global Market Share for Medical Electronics, by Type, 2022 (%)85

Figure 25 Global Market Share for Industrial Controls, by Type, 2022 (%)87



Figure 26 Global Market Share for Sensors, by Type, 2022 (%)88

Figure 27 Global Market Share for the Aerospace Industry, by Type, 2022 (%)89

Figure 28 Global Market Share for Thick Film Devices, by Category, 2022 (%)94

Figure 29 Global Market Share for Thick Film Energy Devices, by Type, 2022 (%)95

Figure 30 Global Market Share for Thick Film Electronic Devices, by Type, 2022 (%)97

Figure 31 Global Market Share for Thick Film Optoelectronic Devices, by Type, 2022 (%)98

Figure 32 Global Market Share for Thick Film Sensors and Actuators, by Type, 2022 (%)99

Figure 33 Global Market Share for Thick Film Devices, by Application, 2022 (%)100

Figure 34 Global Market Share for Thick Film Devices, by Region, 2022 (%)102

Figure 35 Leading Manufacturers of Thick Film Devices, by Product Type and Region (Number)

Figure 36 U.S. Patent Trend Shares for Thick Film Devices, 2015-2017 (Number)

Figure 37 Global Patent Trend Shares for Thick Film Devices, by Region, 2017 (No. of Patents/%)

Figure 38 Global Patent Trend Shares for Thick Film Devices, by Country, 2017 (No. of Patents/%)

Figure 39 U.S. Patent Trend Shares for Thick Film Devices, by Organization Type, 2017 (No. of Patents/%)

Figure 40 U.S. Patent Trend Shares for Thick Film Devices, by Patent Category, 2017 (No. of Patents/%)



I would like to order

Product name: Thick Film Devices, Processes and Applications

Product link: https://marketpublishers.com/r/TEEC1CD85F7EN.html

Price: US\$ 2,750.00 (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/TEEC1CD85F7EN.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
	Custumer 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