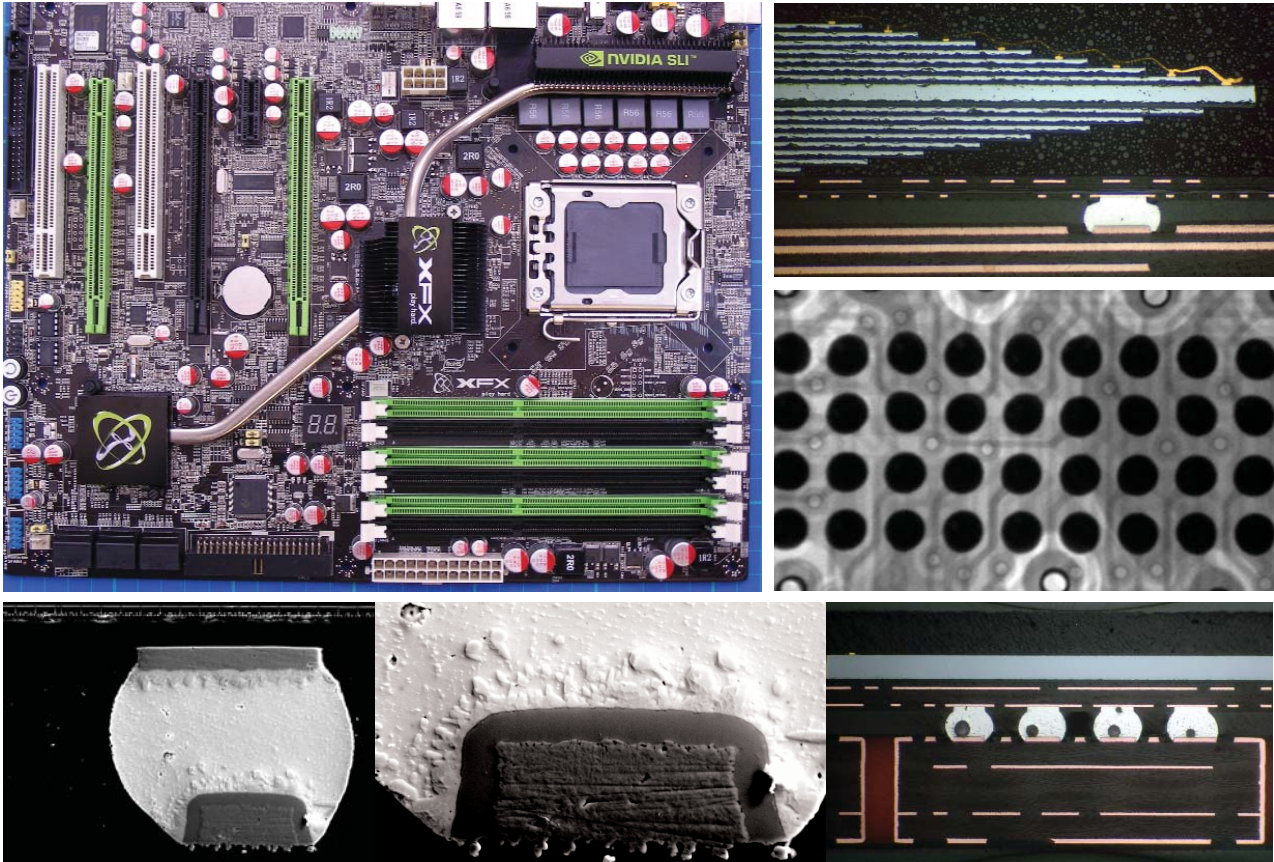


THE SEMICONDUCTOR AND PACKAGING REPORT

SECOND QUARTER • SEPTEMBER 2011



Photos Source: Prismark/Binghamton University

Prismark's Semiconductor and Packaging Report is published quarterly and provides semiconductor manufacturers, semiconductor packaging companies and their materials, process, and equipment suppliers with a comprehensive review and analysis of changes in the global semiconductor packaging industry and how these changes will affect their business.

TABLE OF CONTENTS – Q2 2011

INTRODUCTION AND BACKGROUND	2
STATE OF THE SEMICONDUCTOR AND PACKAGING INDUSTRIES	
REVIEW OF THE STATUS OF SEMICONDUCTOR SHIPMENTS, PRISMARK’S GLOBAL ECONOMIC AND ELECTRONICS FORECAST, ACTUAL AND FORECAST SALES OF SEMICONDUCTOR SUPPLIERS, PACKAGE ASSEMBLERS, AND FOUNDRIES	3
POWER MANAGEMENT AND DISCRETE PACKAGE SOLUTIONS	
A BRIEF UPDATE ON PACKAGE TRENDS FOR DISCRETE SEMICONDUCTORS AS WELL AS A DISCUSSION ON POWER MANAGEMENT COMPONENTS USED IN MEDIA TABLETS AND SMARTPHONES.....	10
COMPANY NEWS: SYSTEM ASSEMBLY AND FOCUS ON PC/NOTEBOOK ODMs	
NEWS RELATED TO SYSTEM ASSEMBLY, LEADING PLAYERS, AND NEW PRODUCT OFFERINGS. FOCUS ON MOTHERBOARD AND NOTEBOOK PC ODMs IN TAIWAN AND CHINA	28
COMPANY NEWS: WAFER FABRICATION AND SEMICONDUCTOR COMPONENTS	
NEWS IN THE SEMICONDUCTOR DESIGN AND FOUNDRY BUSINESS, REGARDING LEADING PLAYERS, AND NEW PRODUCT OFFERINGS	31
COMPANY NEWS: IC PACKAGING AND TEST	
RECENT DEVELOPMENTS IN IC PACKAGING TECHNOLOGIES, MERCHANT PACKAGING, AND TRENDS IN PRODUCTION ..	36

All information, including graphics, diagrams, forecasts, and commentary contained in Prismark reports is copyright of Prismark Partners LLC and is for the exclusive internal use of Prismark clients. The material may not be duplicated, distributed, emailed, web posted or copied in any form to external parties without the express permission of Prismark Partners LLC. Please direct inquiries for authorized use to Prismark.

TABLE OF CONTENTS – Q1 2011

INTRODUCTION AND BACKGROUND	2
STATE OF THE SEMICONDUCTOR AND PACKAGE BUSINESS	
REVIEW OF THE STATUS OF SEMICONDUCTOR SHIPMENTS, PRISMARK’S GLOBAL ECONOMIC AND ELECTRONICS FORECAST, ACTUAL AND FORECAST SALES OF SEMICONDUCTOR SUPPLIERS, PACKAGE ASSEMBLERS, AND FOUNDRIES, INCLUDING LATEST UPDATE ON SEMICONDUCTOR FORECAST BY DEVICE TYPE	3
APPLICATION AND BASEBAND PROCESSORS: DRIVERS FOR ADVANCED PACKAGING SOLUTIONS	
TEARDOWN REVIEW OF THE LATEST SMARTPHONE AND MEDIA TABLETS AND THEIR OVERALL IMPACT ON ADVANCED PACKAGE SOLUTIONS SUCH AS STACKED DIE AND PACKAGE-ON-PACKAGE (POP)	12
COMPANY NEWS: SYSTEM ASSEMBLY	
NEWS RELATED TO SYSTEM ASSEMBLY, LEADING PLAYERS, AND NEW PRODUCT OFFERINGS	32
COMPANY NEWS: WAFER FABRICATION AND SEMICONDUCTOR COMPONENTS	
NEWS IN THE SEMICONDUCTOR DESIGN AND FOUNDRY BUSINESS, REGARDING LEADING PLAYERS, AND NEW PRODUCT OFFERINGS	35
COMPANY NEWS: IC PACKAGING AND TEST	
RECENT DEVELOPMENTS IN IC PACKAGING TECHNOLOGIES, MERCHANT PACKAGING, AND TRENDS IN PRODUCTION ..	39

TABLE OF CONTENTS – Q4 2010

INTRODUCTION AND BACKGROUND	2
STATE OF THE SEMICONDUCTOR AND PACKAGE BUSINESS	
REVIEW OF THE STATUS OF SEMICONDUCTOR SHIPMENTS, PRISMARK’S GLOBAL ECONOMIC AND ELECTRONICS FORECAST, ACTUAL AND FORECAST SALES OF SEMICONDUCTOR SUPPLIERS, PACKAGE ASSEMBLERS, AND FOUNDRIES, INCLUDING SPECIAL SECTION ON IMPACT OF SENDAI EARTHQUAKE.....	3
COPPER WIRE BONDING	
SUMMARY OF DRIVING TRENDS FOR COPPER WIRE TO DISPLACE GOLD WIRE, INCLUDING INDUSTRY STATUS, CONCERNS, AND FORECASTS	14
COMPANY NEWS: SYSTEM ASSEMBLY	
NEWS RELATED TO SYSTEM ASSEMBLY, LEADING PLAYERS, AND NEW PRODUCT OFFERINGS	25
COMPANY NEWS: WAFER FABRICATION AND SEMICONDUCTOR COMPONENTS	
NEWS IN THE SEMICONDUCTOR DESIGN AND FOUNDRY BUSINESS, REGARDING LEADING PLAYERS, AND NEW PRODUCT OFFERINGS	27
COMPANY NEWS: IC PACKAGING AND TEST	
RECENT DEVELOPMENTS IN IC PACKAGING TECHNOLOGIES, MERCHANT PACKAGING, AND TRENDS IN PRODUCTION ..	34

TABLE OF CONTENTS – Q3 2010

INTRODUCTION AND BACKGROUND	2
STATE OF THE SEMICONDUCTOR AND PACKAGE BUSINESS	
REVIEW OF THE STATUS OF SEMICONDUCTOR SHIPMENTS, PRISMARK’S GLOBAL ECONOMIC AND ELECTRONICS FORECAST, ACTUAL AND FORECAST SALES OF SEMICONDUCTOR SUPPLIERS, PACKAGE ASSEMBLERS, AND FOUNDRIES	3
PACKAGE SUBSTRATE MARKET AND TECHNOLOGY UPDATE	
HIGHLIGHTS OF IC PACKAGE SUBSTRATE MARKET AND TECHNOLOGY SOLUTIONS	10
COMPANY NEWS: SYSTEM ASSEMBLY	
NEWS RELATED TO SYSTEM ASSEMBLY, LEADING PLAYERS, AND NEW PRODUCT OFFERINGS	21
COMPANY NEWS: WAFER FABRICATION	
NEWS IN THE SEMICONDUCTOR DESIGN AND FOUNDRY BUSINESS, REGARDING LEADING PLAYERS, AND NEW PRODUCT OFFERINGS	24
COMPANY NEWS: IC PACKAGING AND SUBSTRATES	
RECENT DEVELOPMENTS IN IC PACKAGING TECHNOLOGIES, MERCHANT PACKAGING, AND TRENDS IN PRODUCTION ..	28



*CONSULTANTS TO THE ELECTRONICS INDUSTRY
BUSINESS OPPORTUNITY FROM TECHNOLOGY AND
MARKET CHANGES*

PRISMARK PARTNERS LLC

This material is © Prismark Partners LLC

130 Main Street, Cold Spring Harbor, NY 11724 USA • Telephone: 631-367-9187 • Fax: 631-367-9223 • e-mail: partners@prismark.com

Prismark Asia, 7F-6, 234 Nanking East Road, Sec. 5, Taipei, TAIWAN • Telephone: 886-2-27647313 • Fax: 886-2-27611272

Visit our website at **www.prismark.com**