Global and China IC Substrate Industry Report, 2015

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STUDY GOAL AND OBJECTIVES

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

REPORT OBJECTIVES

- To establish a comprehensive, factual, annually updated and cost-effective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- To help company to succeed in a competitive market, and

METHODOLOGY

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

INFORMATION SOURCES

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

Abstract

Global and China IC Substrate Industry Report, 2015 highlights the followings:

1. Status quo of semiconductor and IC packaging industry
2. Analysis on downstream market of IC substrate
3. Development trend of IC substrate
4. Analysis on IC substrate industry
5. Research on 12 IC substrate vendors
6. Research on 6 IC substrate peripheral companies

IC substrate industry may be in a predicament in 2015, rooted in two aspects: first, the maturing of FOWLP; second, the tablet sales decline and sluggish smartphone growth. In addition, the prosperity of IC substrate industry in 2013 stimulated large-scale expansion of enterprises in 2014, thus leading to an insufficient rate of capacity utilization.

For FC-CSP substrate with mobile phone and tablet PC as the core market facing strong competition from FOWLP that has overwhelming superiorities including low profile, higher speed, more I/O, higher integration, less processing step, especially needing no substrate which slashes cost as IC substrate accounts for more than half of the total cost of IC.

Revenue of Major IC Substrate Vendors, 2012-2014

(USD mln)

	2012	2013	2014
UNIMICRON	925	747	752
IBIDEN	1,482	1,110	1,002
NANYA	645	702	806
KINSUS	694	613	649
SEMCO	1,230	1,048	882
SHINKO	1,460	1,200	1,130
SIMMTECH	336	298	390
DAEDUCK	382	386	372
KYOCERA	286	260	308
LG INNOTEK	110	245	351
ASE	174	192	218

Although it is in its infancy without obvious cost advantage, FOWLP has been an irresistible trend, the traditional FC-CSP substrate will have to reduce the price to enter a competition, and the demand for the latter will be sharply reduced by more than 60% once FOWLP matures. So in 2015, FC-CSP substrate vendors have to substantially reduce the price to gain market advantage in advance. It is expected that in 2015 the IC substrate market will encounter a 7% scale-down to USD7.12 billion.

In the downstream market, large screen mobile phone squeezed the living space of tablet PC which declined significantly. And the single-functional tablet PC is mostly used as a toy for children with less demand for replacement. In the field of smartphone, China as the world's largest smartphone market declined in 2014.

SiP packaging substrate will be the highlight for IC substrate market in 2015 as core components of high-end smart watches must adopt SiP packaging. Both the two core processors built in Apple Watch use SiP packaging technology. The most important SiP substrate of Apple Watch calls for the most difficult production, priced 4-5 times higher than FCCSP applied to general ARM processor. The orders are shared by Nanya, Kinsus and other Taiwanese vendors. ASE undertakes Apple Watch's SI chip SiP packaging business.

The PC market is also likely to recover in 2015 for tablet PC slump means the recovery of laptop computer market. Laptop computer market saw the first growth in 2014 after three consecutive years of decline and is expected to continue the trend in 2015. And laptop discrete graphics card accounts for a zooming proportion, signifying GPU shipments boost.

Another excellent performer in IC substrate applications is the memory market.

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