

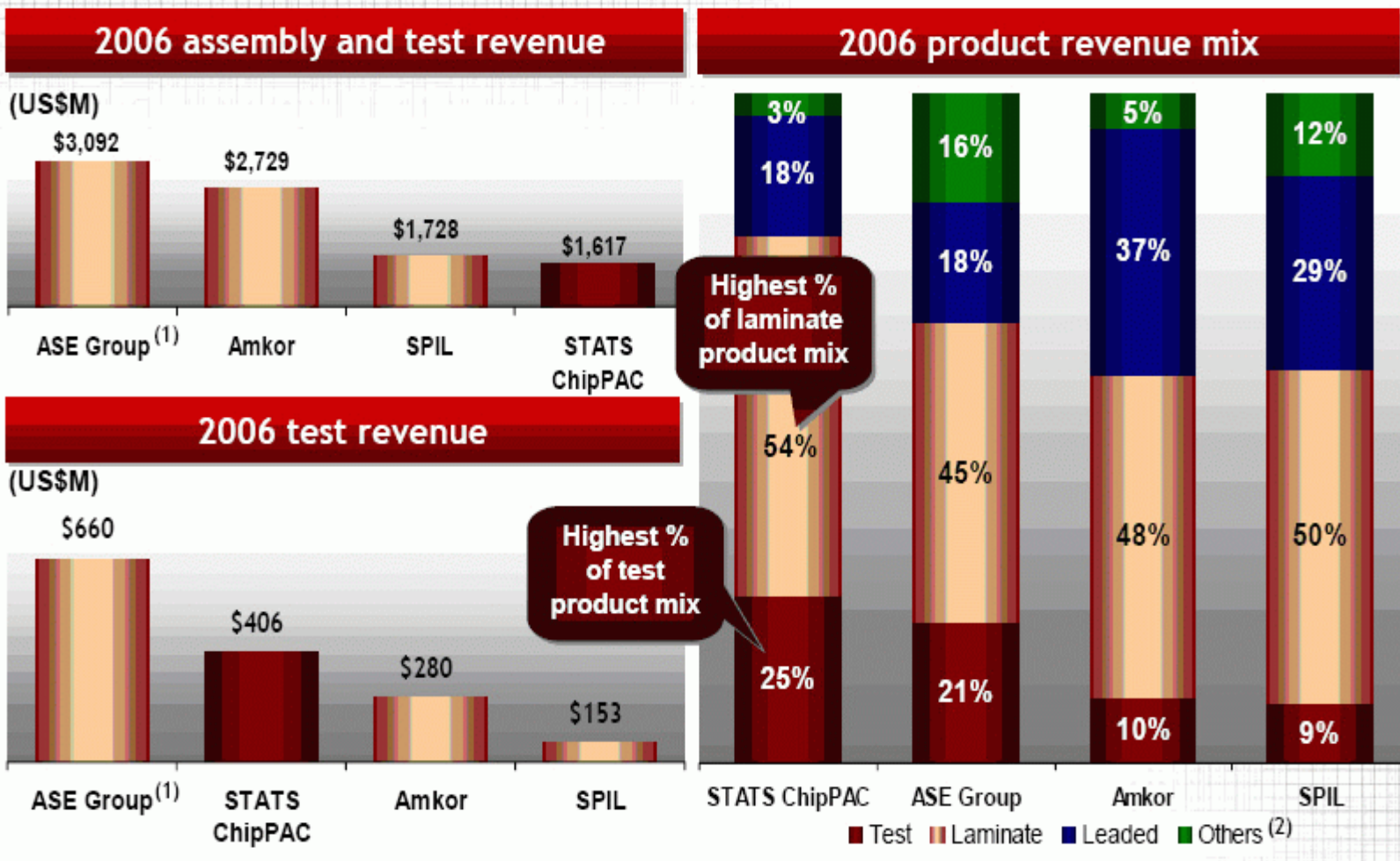
IC Advanced Packaging Industry Report, 2007



- The prices of semiconductor are fluctuating now and then because of continual advent of new products and the shortened lifecycle. In view of the cost of a complete semiconductor product, expense on packaging accounts for 5 to 25 percentage of market price of one semiconductor unit. However, as technology advances, the proportion of packaging cost to the whole cost becomes higher. Therefore, most clients of international semiconductor vendors care more about the quality of packaging, output and terms of delivery. The packaging technology becomes so complicated and so many packaging methods available that add trouble to one single international semiconductor company of IDM to meet the increasing market demand. As a result, outsourced packaging becomes the mainstream.

- In the outsourced packaging and test market, large international IDM companies shift their attention to core advantages such as design, R&D and marketing when facing fierce competition results from the rapid updating of products. Meanwhile, large international IDM companies become far less profitable under the influence of universal recession in the industry. Therefore, they sharply decrease their capital expense on semiconductor produce capacity and are rather conservative in extending produce capacity of backend packaging. Meanwhile world class package foundries continually invest in new technology R&D as advanced package demands are brought about by new IC products. As a result, large international IDM companies are more dependent upon advanced packaging technology of package and test foundries. As international IDM companies speed up outsourced processing worldwide, CAGR would reach 168% between 2003 and 2009.
- Outsourced packaging e.g. BGA, CSP, FC, QFN and SiP are all fairly advanced. To enter the field, large investment (at least one billion yuan) is needed to purchase equipment and conduct technological R&D. Without enough capital and strong technological R&D capability, it is quite impossible to enter this field. So only big enterprises may go somewhere and only a few may have a place in package. As a result, supply never meets demand in package market. Therefore, advanced package companies get a higher gross profit margin. Gross profit margins of most companies have an increment from about 6% in 2001 to 20-35% at present. Naturally their revenues also increased by a large margin. Such case may only happen to advanced package industry in electronic industry.

Revenue Structure and Proportion of Top Four Packaging & Test Companies, 2006



Global Market Scale of Advanced Packaging Material Industry, 2004-2008

Unit: Mln NTD	2004	2005	2006	2007	2008
Lead Frame	2960	3010	3045	3061	3041
Plastic Substrate	3244	4202	5310	6301	7837
Flex. Substrate	308	343	372	419	450
Ceramic Material	1600	1670	1750	1820	1900
Mold Resin	1581	1765	1937	2009	2071
Golden Thread	1762	1809	2057	2193	2327
Die Attach Material	368	463	489	526	564
Other	109	145	188	248	306
Total	11932	13407	15148	16577	18496
Growth		12.8%	13.0%	9.4%	11.6%

- Taiwan is gradually becoming a power in the packaging and test fields. Among the global top ten packaging and test companies, six are from Taiwan, all of which are performing well in both revenues and profits. If ranking by profit scale, nine Taiwan package and test companies may be listed in top-ten. So it can be concluded that global advanced packaging and test companies inhabit in Taiwan. However, Japanese often do well in the IC substrate field, so close business relationship between Taiwan and Japan is built as Japan companies transfer their technologies to Taiwan when an inadequate production capacity takes place. Actually 95% of electronic technologies in Taiwan, including packaging but not limited to, are from Japan.
- With simultaneous complete master of both global advanced IC wafer foundry and IC advanced packaging technologies, Taiwan achieves best performance in the semiconductor industry worldwide and has become the heart of global semiconductor industry.

- Taiwan' large packaging and test companies often merge and purchase small ones when developing. On average each company merges or acquires at least three small companies. For instance ChipMos Technology Ltd has acquired seven in five years. Or incorporate virtual group is formed such as Mosel Vitelic Inc, most of its member company deal with packaging & test. With their own know-how, they compete nice and well in the market. Many rank No. 1 in their respective fields and are very competitive. Sound in capital market and excellent in integrating, Taiwan companies are quite successful in merge and acquisition, which contributes a lot in the overall success of Taiwan packaging and test industry.



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How to Order

Product details			How to Order
	USD	File	By email: report@researchinchina.com
Single User	2,000	PDF	By fax: 86-10-82600829
Enterprise Wide	3,000	PDF	
Publication Date: Jan 2008			By online: www.researchinchina.com
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