



Global and China Semiconductor Equipment Industry Report, 2013-2014

Jan. 2014

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

After two years of recession, the semiconductor equipment market is projected to achieve growth in 2014. In 2011, the semiconductor equipment market size hit a record high of USD43.532 billion, but it witnessed a drop by 15.2% in 2012 and a further decline by 8.1% in 2013. The reduction came mainly as the steep decrease of backlog orders from North America and South Korea. Notably, the contracted orders from North America resulted largely from the glooming PC market and Intel's reduction of capital expenditure for equipment, while the shrinkage of orders from South Korea was heavily duel to the suspension of investment in DRAM.

In 2014, the driving force of the semiconductor equipment market is mainly sourced from foundry and memory. In particular, foundry began to step into 20nm domain, while memory is ushering in 3D era. In the era of 20nm, semiconductor vendors employ two routes: double/multiple patterning and EUV. Double/multiple patterning is more technologically advanced than EUV, although it means substantial cost rise in manufacturing and equipments, especially for etching equipments.

EUV can cut the manufacturing and equipments cost significantly, albeit EUV itself costs as high as USD100 million. But counted by the total cost, 14nm wafer equipped with EUV technology is roughly 40% lower than that equipped with multiple patterning technology. However, there are many hurdles for EUV remained to be addressed. One of them is light source. Multiple e-beam direct write is well low-efficiency, thus failing to meet the standard for practical use.

Equipment vendors have failed to catch up with the development of foundry, especially the ASML which almost monopolize the global lithography market, so foundry will have to slow down their pace towards advanced node. The cost of multiple patterning may be OK for customers, but it is not the case when it comes to the cost of triple patterning. Nevertheless, this cannot prevent industrial players from making continued research, so the procurement of equipments still keeps growing.

The semiconductor equipment industry is experiencing ceaseless integration. Take Applied Material for example, it took over second-ranked Tokyo Electron in 2013, further consolidating its position with the market occupancy in the etching market on a big rise.

Taiwan became the largest semiconductor equipment market. Taiwan-based industrial players such as TSMC and UMC make bulk buying of advanced equipments. The estimate shows that Taiwan semiconductor equipment market size will bag USD10.99 billion by 2014 and that the figure by 2015 will slightly decline to USD10.88 billion.

Semiconductor Equipment Market Size by Region, 2013 | USD33.9 billion Global Total | Market size will grow 10.4% in 2014



Revenue of Top 10 Semiconductor Equipment Vendors, 2009-2013

Unit: USD bn



Source: ResearchInChina

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