Review of Operations and Business Outlook

Semiconductor Production Equipment (SPE)

Share of Net Sales

<table>
<thead>
<tr>
<th>Year</th>
<th>Share of Net Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>33.8%</td>
</tr>
</tbody>
</table>

2016 Business Environment

Driven by the arrival of the internet of things (IoT), the growing sophistication of smartphones and data center servers continued unabated, while demand ramped up for higher-capacity memory and faster logic chips. Given this backdrop, investment growth in memory was particularly robust in the area of 3D NAND. In logic chips, capital expenditure was implemented primarily by foundries, which invested aggressively in cutting-edge 10 nm generation products. As a result, 2016 global capital expenditure for wafer fab equipment (WFE)* grew more than 10% year on year to approximately US$73 billion.

* WFE: fab equipment for semiconductor production equipment is divided into front-end production in which circuits are formed on wafers and back-end production, in which wafers are cut into chips, assembled and inspected again. Wafer fab equipment refers to the production equipment used in front-end production and is a wafer-level packaging production.

Fiscal 2017 Business Overview

- Segment net sales grew 22.3% year on year to ¥749.8 billion.
- By region, sales mainly grew in Taiwan, China, and South Korea, reflecting booming investment in NAND flash memory and by foundries.
- By product, rising demand and market share increases drove sales growth in the key field of etch systems. In deposition systems, sales of semi-batch ALD** systems for cutting-edge miniaturization were doubled their fiscal 2016 level.
- Sales in the field solutions business (encompassing sales of parts and used equipment, modifications and maintenance services) rose 12% year on year to approximately ¥208.0 billion.
- The segment profit margin rose from 20.7% in the previous fiscal year to 24.4%, due in part to the increase in net sales and a high rate of factory utilization.

** ALD: atomic layer deposition. An atomic level film deposition technique

Business Outlook

With the arrival of IoT, semiconductors are beginning to be used in all kinds of everyday objects. At the same time, research into autonomous driving and AI is advancing toward commercialization. As a result, demand for cutting-edge semiconductors that can instantly process and analyze cloud data is growing rapidly. Backed by this expansion in demand, the WFE market is beginning to enter an accelerated growth trajectory toward the US$400 billion mark and beyond. Tokyo Electron has positioned etch, deposition, and cleaning systems, which are expected to see especially strong market growth, as key fields. By achieving technological differentiation in these fields, the Company aims to increase its profitability and market share.

In particular, 3D NAND requires advanced deposition technologies to increase the number of vertically stacked layers as well as etch technologies that can simultaneously etch said layers with high precision. Tokyo Electron will continue to hone its long-held strengths in deep hole etch technologies and expand its market share of etch systems used in the NAND field.

In logic chips, miniaturization using multiple patterning continues to advance. This multiple patterning uses etch and deposition technologies to realize microfabrication. Tokyo Electron aims to increase revenue and profit by expanding sales of etch systems, for which it boasts a high market share, as well as high-productivity semi-batch ALD systems and cleaning systems that reduce pattern collapse.

Furthermore, over the long term, the expected adoption of new materials and changes in transistor structure will lead to considerably more formidable and complex technological challenges. To address these challenges, Tokyo Electron will leverage its robust product lineup to both improve the performance of individual products and to support the rapid development and release of solutions that optimize entire processes. By taking part in our customers’ technological plans for next-generation and future generation products from an early stage, the Company will accelerate its growth over the medium and long term.