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News & Analysis

Advanced Packaging Drives SPTS Semiconductor Deal

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LONDON — Why is the leading maker of optical inspection equipment for PCBs and flat-panel displays buying a semiconductor etching and deposition company? The \$300 million acquisition of SPTS in Wales by Israel-based, US-listed Orbotech is perhaps a little strange. The other question is: Why would SPTS choose to be bought by Orbotech?

SPTS is a management buyout backed by private equity fund Bridgepoint, which is an important motivation. Private equity has a three-to five-year window for its return on investment, which SPTS was just entering. Given that a boom in tech acquisition and mergers is just starting, Bridgepoint would be looking to free-up capital to participate.

But why this mix of semiconductor and PCB manufacturing equipment? One of the drivers is advanced packaging, with 2.5D and 3D devices in packages. This means the silicon makes up most of the function of the board, and while it's still in its infancy, it will become increasingly important to board makers. This was flagged by Orbotech's CEO, Asher Levy, in a [statement](#):

Orbotech identified Advanced Packaging as a strategic and natural extension of its business into an adjacent high growth market, where SPTS is a recognized technology leader. SPTS benefits from established, long-standing partnerships with major industry players. Acquiring SPTS allows us to accelerate the expansion into Advanced Packaging, with multiple manufacturing solutions ideally suited for this growing segment.

Orbotech also co-owns bare-board PCB maker Frontline PCB Solutions along with Mentor Graphics.



SPTS's CVE system.
(Source: [SPTS](#))

SPTS designs and builds single-wafer etching and deposition systems for semiconductor manufacturers at its clean room in Newport, Wales. The company was formed from Sumitomo Precision Products (SPP), which acquired the assets of Aviza Technology that were merged with Surface Technology Systems, an SPP subsidiary, and has operations in San Jose, Calif. and Allentown, N.J. The company also has strengths in equipment for making power devices and micromachined MEMS sensors.



Kevin Crofton
President & COO, SPTS

The company had three other suitors, all in the semiconductor business, says Kevin Crofton, president and COO of SPTS, so there was the luxury of choosing the right partner rather than one that would dismantle the company for its product line and patents. He told EE Times:

We could have sold the company for \$30 million to \$50 million more than we did. Bridgepoint asked us who we wanted to sell to, and Orbotech was the best fit culturally and technically.

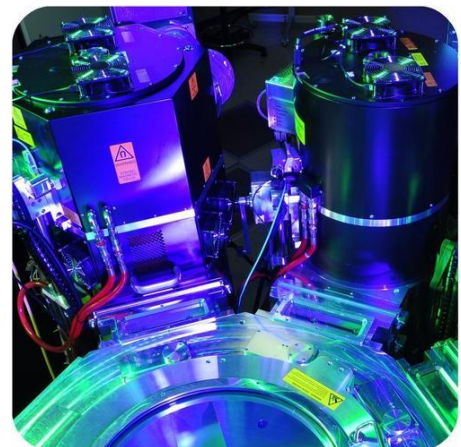
We are 30 to 40% of revenue and 40 to 50% of the profit of the combined company, so we are quite important to them, and they have a sizeable war chest. They also had an activist investor who was pushing them to do a deal, and they wanted to move into the high-growth sector of advanced packaging.

The deal also gives SPTS access to Orbotech's customers in Asia, says Crofton. "They have a great footprint in China, with 400 people, and we have a very small presence."

The prospects for advanced packaging are still only just emerging, he says:

3D packaging with through silicon vias is five to ten years out, but there will be stacked memory devices before that, and the interposer 2.5D technology is real today. This company is going to be a three-horse company in two years time: advanced packaging MEMS and spares and upgrades for our legacy equipment. In three to five years from now we will be primarily an advanced packaging company -- that will far outweigh what we do in MEMS, RF, and power.

Orbotech claims it touches almost every electronic product made today. With the SPTS deal it is making sure it touches the new emerging 2.5D and 3D devices and systems.



SPTS's Omega fpx with ICP module.
(Source: [SPTS](#))

—Nick Flaherty writes about the semiconductor industry for EE Times and EE Times Europe.