

Powerchip to Become PC DRAM Foundry for Elpida



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Taiwan DRAM Consolidation Takes Unusual Twist

On December 31 Elpida announced an agreement under which Elpida will purchase all of Powerchip's DRAM output.

The agreement is intended to allow Elpida to expand its production capacity without capital expenditures. Powerchip will phase out its own branded DRAMs and Elpida will purchase all of its commodity PC DRAM production from Powerchip. Elpida's Hiroshima Fab will allocate its capacity away from commodity DRAMs towards Mobile DRAMs.

Elpida Pulls Powerchip Closer into the Fold *...from fab partner and technology licensee, to foundry*

In 2009, during the most turbulent part of the global financial crisis, there was a lot of discussion about ways to consolidate Taiwan's DRAM makers since it appeared clear that none of these companies could survive over the long term.

Powerchip is just one of several financially-distressed Taiwan DRAM makers: All are cash short, heavily indebted, and about one technology node behind the market leaders. This meant that their cost structure did not allow them to profit long enough during the recent one-year DRAM market rebound, from mid-2009 to mid-2010, to pay down their debt or to advance their processes and ramp lower-cost designs.

With ProMOS now pretty much out of the picture, Nanya and Inotera posting large 4Q10 losses heading into 2011, Winbond retreating from DRAMs, and DRAM prices still too low for any but the best to make profits, Elpida's move may be the first step in a major restructuring of Taiwan DRAM makers.

The reason that the DRAM market is consolidating is relatively simple: Fab costs are rising faster than are DRAM market revenues. Objective Analysis spells this out in detail in a Brief available on our website: [*Why the DRAM Market Must Consolidate.*](#)

Before this agreement Elpida purchased half of Powerchip's output under a foundry agreement, with Powerchip selling the other half as its own products under a license from Elpida. Powerchip's fab produces about 120K 300mm wafers a month and the company has rights to purchase another 30K DRAM wafers fabricated by Rexchip.

Powerchip has been taking a number of steps in the recent past to shore up the company's sagging finances. Powerchip recently sold land and buildings to TSMC to improve its cash position. Lately the company has also taken in foundry business for others, some of which is non-DRAM, and is ramping production of a diversity of other products: LCD drivers, CMOS image sensors, power management chips, and even NOR and NAND flash.

Objective Analysis will be watching this deal carefully to see how both companies will resolve certain thorny issues that were not explained in the press release:

- Does this move impact Powerchip's creditors?
- How are wafer/chip prices determined?
- Who bears the risk for low DRAM prices?
- Who pays for the tooling required to migrate to Elpida's 45nm and 35nm DRAM processes?

All in all the move appears mildly positive for both companies, with Elpida increasing capacity at no cost while Powerchip can streamline its operations by reducing its DRAM sales and marketing costs. We will keep our clients informed and more fully briefed as this evolves.

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