



OBJECTIVE ANALYSIS

Semiconductor Market Research

OBJECTIVE ANALYSIS ALERT!

April 14, 2008

Seagate Fires First Volley at SSD Maker STEC

Following through on the company president's promise to Fortune Magazine on March 17, Seagate Technology today filed a patent infringement lawsuit against STEC on the manufacture of solid-state drives (SSDs). Seagate alleges infraction against four Seagate patents.

Some History

Although most HDD makers are viewed as companies with no SSD technology, they really do own intellectual property that overlaps the SSD business, as the Seagate patents show. Both Western Digital and Seagate partnered with SanDisk in the 1980s as SanDisk worked to establish today's flash card market. In doing so, these HDD makers gained access to key flash SSD intellectual property, some of which is being used in today's complaint.

Implications for SSD Makers

Although we are not in a position to comment on the validity of Seagate's claim, we have been watching the technology business long enough to understand the way the patent game is often played. It is rare and very costly for such cases to be taken all the way to trial; a settlement is usually reached beforehand. As a general rule the two companies will square off by comparing the sheer volume of patents each possesses, with the owner of the larger portfolio naming the terms. In this case we compare Seagate, with a portfolio of some 3,366 patents against STEC, whose patent portfolio appears to comprise roughly about a dozen patents, and we see a phenomenal disparity. In light of this Seagate will probably either ask for royalties and perhaps for a cross-license as well.

This last might be tough for STEC to accept because that would give Seagate access to STEC's crown jewels. STEC, like most other high-end SSD makers, profits from their know-how in a market with very low barriers to entry. STEC has every reason to wish to jealously guard their proprietary technology.

About those low barriers: There are more than 40 SSD makers today, with less than 20% of these companies manufacturing a differentiated, or high-end product. The large majority of SSD makers expect to participate in the market simply by purchasing a controller from one company (often Phison or Silicon Motion), NAND chips from another (Samsung, Toshiba, Hynix, Intel, Micron) and slapping them together with a few other low-cost components into an SSD.

Now STEC is only a \$189 million firm, and the royalties Seagate can collect from them will be limited. What does this mean to titans like Samsung (\$103B revenues, 25,300

patents), Toshiba (\$70B revenues, 27,400 patents), or Intel (\$38B revenue, 15,200 patents), all of whom have shown off SSDs of their own?

As the numbers above illustrate, all of these larger companies understand the US patent system and have spent the past several years growing their patent portfolios. They will be in a stronger negotiating position against Seagate, and may fight back more aggressively than will STEC. In addition, these companies have the financial wherewithal to underwrite a costly lawsuit.

What is likely, though, is that STEC will be the proving ground for Seagate's patents, with other companies choosing to settle or fight based upon how the STEC/Seagate battle shapes up. We suspect that Seagate is already holding negotiations with all major SSD makers, and will be using this suit as a way to prove they are willing to play tough.

Implications for SSD Purchasers

Should OEMs who planned to purchase SSDs be concerned about this move? Not really. In such dealings the plaintiff (Seagate in this case) usually will try to collect somewhat equivalent royalties from all players. This keeps the playing field relatively level: the royalties that STEC might end up paying are likely to be similar to those paid by other firms except in cases where appreciable cross-licensing can be used to negotiate lower royalties.

Even so, royalties are rarely high enough that they make a significant difference to the purchase price. This means that one firm's offerings are not likely to suffer a competitive disadvantage to their competition because both are paying about the same rate. In a way a royalty payment is like a sales tax or a VAT – if Seagate prevails then SSDs will all become slightly more costly as the price of the royalty payment is passed on to the buyer.

Implications for Seagate

If Seagate profits from this move the money should all fall directly to the bottom line. Royalty payments can be a boon for a company, as SanDisk's president sometimes observes: SanDisk's royalty income is more than enough to pay for the company's R&D expenses, and R&D tends to spawn more patents.

Seagate does not currently break out royalties in their financials. We have not yet scrutinized their SEC filings to see if royalties are reported there.

There is the possibility that this case will come to trial, and if it does then legal fees will be a drain on both companies. Should Seagate prevail, then their royalty income will be trimmed by their legal payments. As we mentioned before, this is a relatively rare occurrence, and we would expect to see a settlement before this case goes to trial.

Jim Handy

+1 (408) 356-2549

Objective Analysis

PO Box 440

Los Gatos, CA 95031-0440

USA

www.Objective-Analysis.com