

Coughlin Associates

Coughlin Associates

www.tomcoughlin.com

Email: tom@tomcoughlin.com

Phone: 408-978-8184

WD to Acquire HGST for \$4.3 B

Combined Company Revenues to Exceed Seagate's

Summary

On Monday March 7 Western Digital (WD) announced that the company had reached an agreement to purchase Hitachi Global Storage Technologies (HGST) for \$4.3 billion in cash and common stock. The deal has already been approved by both companies' boards and is expected to close in the third quarter assuming regulatory approval. HGST's parent Hitachi will retain a 10% stake in the combined company and HGST's current CEO, Steve Milligan, will be president of the new business reporting to WD president and CEO John Coyne. The merger will impact the HDD industry including component and equipment suppliers and change the landscape for enterprise SSDs.

Biggest in HDDs

From a unit shipment perspective WD and HGST are the largest and third largest manufacturers of hard disk drives (HDDs). Today Seagate remains the revenue leader, thanks to the company's dominance of the enterprise HDD market. The pending merger will push WD's revenues ahead of Seagate's.

WD is already the unit shipment leader, having surpassed Seagate's unit shipments over a year ago. Combined unit shipments for WD and HGST account for nearly 48% of the world HDD market.

Hitachi GST was formed by the merger of IBM and Hitachi's HDD units in 2003. After many years of losses HGST turned profitable for most of the last two years. Although the division is profitable, Hitachi was rumored to have been looking to divest itself of its HDD unit for several years. In 2010 and even in 2009 rumors reported that Hitachi was shopping for a buyer for the division with WD mentioned as one of the suitors. WD was also rumored to have been interested in Fujitsu's HDD business before that company was acquired by Toshiba.

Impact on HDD Component and Equipment Suppliers

The merger of HGST with WD will have an impact on more than direct competitors to the two companies. Suppliers of components and capital equipment that service the two companies, and to some extent those that furnish the rest of the industry will feel the impact of the acquisition. There will be a period of uncertainty when production equipment that was on order or anticipated to be ordered by HGST and WD will be in limbo while the real needs of the combined company are determined. It is quite likely that the combined company will consolidate manufacturing capacity over time and this plus the greater potential efficiency of a combined company could reduce overall capital demand (separate from the overall unit growth in HDD and HDD components).

Capital equipment companies such as Veeco, Intevac, Xyratex and KLA-Tencor will need to pay close attention to their customers to determine how this merger will impact their businesses. Since the merger is scheduled to happen in Q3 2011 the biggest impact will be felt in the second half of 2011 and into 2012.

Fixing a Weak SSD Presence

This deal has an SSD angle as well. Both WD and HGST participate in the SSD market through different approaches, although neither has a leading market position at this time.

In 2009 WD acquired SSD maker SiliconSystems as a means of entering the SSD market. Although SiliconSystems had its sights set on the enterprise SSD market, WD's current offerings are more strongly oriented towards embedded SSDs for the military and industry, with few offerings of any substance in the enterprise space.

Late in 2008 Hitachi signed a deal with Intel to produce SSDs that would combine the highly-reputed Intel SSD architecture with Hitachi's enterprise HDD interfaces. Hitachi would introduce SAS and Fibre Channel SSDs, with Intel continuing to serve the SATA market. Last November Hitachi introduced the first of these products.

Assuming that the Intel/HGST agreement successfully transfers to WD, WD's enterprise storage group will finally introduce fast SSDs into the enterprise market.

Impact of the New Company

This merger will significantly change the HDD competitive landscape by the end of 2011 when there will remain only four HDD companies with WD commanding close to half of the market. This will put pressure on the other players in the industry to look at their options, possibly driving the formation of additional alliances or mergers over the next year or two.

Of course those who follow the disk drive industry know that merged companies generally don't retain the combined market share of the prior two companies. It

remains to be seen if the larger WD will be able to retain a market share close to 50%. There are reasons to believe that the combined company will lose less market share than other merged companies have lost in the past. For one thing HGST brings WD a solid enterprise storage product line, bolstering the fledging enterprise products that WD has introduced over the last few years. Assuming that WD retains HGST's enterprise development and support team it should be possible for the combined company to continue to participate strongly in this market segment and compete against Seagate in that company's most profitable sector.

Not only will WD become an important force in the enterprise HDD market, but the company also looks likely to gain a potentially strong candidate in SSDs, allowing WD to boast a very broad offering from cost-leading capacity HDDs through high-speed enterprise HDDs and SSDs, addressing all speed levels of the disk drive market. With this strong product portfolio the company to compete very strongly against Seagate.

There are significant differences that will need to be overcome between HGST and WD. Although WD leads the HDD industry in cost structure by reducing their manufacturing costs and controlling materials costs, HGST suffers from a disjointed international production system which has given the company high costs. This high cost structure has made it difficult for HGST to profit in the competitive HDD business. We would expect WD to move quickly to lower HGST's production costs and further limit the loss of HGST's current customers to lower-priced competitors. However it may take some time to merge the HDD component and HDD production units of the two companies.

Hitachi Data Systems (HDS), another Hitachi division that deals heavily with HDDs, does not appear to be impacted by this acquisition. HDS manufactures storage arrays based on HDDs from a variety of manufacturers, so the relationship with HGST is loose. HDS has done well for Hitachi and we do not believe that Hitachi is considering selling it.

In summary, this appears to be a very significant deal that should dramatically change the disk drive market while providing WD with a good number of highly complementary products.

Tom Coughlin, Coughlin Associates
Jim Handy, Objective Analysis

About the Authors



Tom Coughlin, President, Coughlin Associates is a widely respected storage analyst and consultant. He has over 30 years in the data storage industry with multiple engineering and management positions at high profile companies. Tom is a frequent presenter at trade shows and technical conference and an organizer of several industry events.

Dr. Coughlin has many publications and six patents to his credit. Tom is also the author of *Digital Storage in Consumer Electronics: The Essential Guide*, which was published by Newnes Press in 2008. Coughlin Associates provides market and technology analysis (including regular reports on digital storage technologies and applications such as professional media and entertainment and consumer electronics and a newsletter). His company, Coughlin Associates also provides consulting services.

Tom is active with SMPTE, IDEMA, SNIA, the IEEE Magnetics Society, IEEE Consumer Electronics Society, and other professional organizations. Tom is the founder and organizer of the Annual Storage Visions Conference (www.storagevisions.com), a partner to the annual Consumer Electronics Show as well as the Creative Storage Conference. Tom is also the chairman of the annual Flash Memory Summit. He is a Leader in the Gerson Lehrman Group Councils of Advisors and a member of the Consultants Network of Silicon Valley (CNSV). For more information go to www.tomcoughlin.com.

Coughlin Associates can be contacted at 408-978-8184 or by email at tom@tomcoughlin.com.



Jim Handy, a widely recognized semiconductor analyst, comes to Objective Analysis with over 30 years in the electronics industry including 14 years as an industry analyst for Dataquest (now Gartner) and Semico Research. His background includes marketing and design positions at market-leading suppliers including Intel, National Semiconductor, and Infineon.

A frequent presenter at trade shows, Mr. Handy is known for his widespread industry presence and volume of publication. He has written hundreds of articles for trade journals, Dataquest, Semico, and others, and is frequently interviewed and quoted in the electronics trade press and other media. Jim has served as the Senior Program Advisor for the Flash Memory Summit for the past four years and is a member of the SNIA Solid State Storage Initiative.

Mr. Handy has a strong technical leaning, with a Bachelor's degree in Electrical Engineering from Georgia Tech, and is a patent holder in the field of cache memory design. He is the author of "The Cache Memory Book" (Harcourt Brace, 1993), the leading reference in the field. Handy also holds an MBA degree from the University of Phoenix. He has performed rigorous technical analysis on the economics of memory manufacturing and sales, discrediting some widely held theories while unveiling other true motivators of market behavior.

Mr. Handy may be contacted at Jim.Handy@Objective-Analysis.com, or by telephone at +1 (408) 356-2549.