SDAS: HDD Information Service CQ2'13 Quarterly Update - July 30, 2013

Executive Summary

HDD Shipments Off Slightly in CQ2 to 133.40 Million – Weak PC Market to Dampen 2H'13

Despite 2% unit decrease, richer capacity mix tempers exabyte decline to 0.5% or 108.62 exabytes shipped

NOTES: "Nearline" HDDs are included in the enterprise segment. Adjustments to shipments and market shares in this document may be made in the final Quarterly Update.



and revenue decline.

For the second straight quarter, Seagate continued its tactic to shift its business towards the more lucrative enterprise segment, giving up share in the lower margin, lower ASP client HDD space. As a result, Seagate managed to raise ASPs by \$1 in CO2 '13 to \$64. The company shipped 53.89 million HDDs in total – a 3% sequential drop – while posting good gains in the enterprise segment, notably from strong demand in the nearline, or business critical sub-category. From the prior guarter Seagate's nearline shipments jumped over 15% to 4.50 million units. Traditional enterprise, or mission critical as designated by the company also increased 2% from CQ1 '13. Seagate's gross margins lifted 50 basis points from the prior guarter, reaching 27.4%, despite the share

TOSHIBA After gaining measurable share in CQ1 '13, Toshiba's unit shipment slipped by 2.2%, nearly matching the overall TAM decline and thus maintaining its market share that it gained in the prior guarter. In CQ2 '13, Toshiba's units totaled 19.61 million. While the company gave up seguential units in all segments, it managed to maintain minimal declines in both its desktop and mobile categories. A 0.20 million seguential decline in enterprise represented a fall of nearly 16% from the prior quarter, but fluctuations in Toshiba's enterprise business has been witnessed over many quarters and may be due to the lumpy demand nature of its major enterprise customers.



As the largest HDD supplier in the industry running two separate subsidiaries – WD and HGST – WDC gained a small amount of share in CQ2 '13 as its sequential unit decline was limited to only 1% with 59.90 million HDDs shipped. Similar to its closest rival, WDC benefitted from strong nearline demand growth with units increasing more than 13% sequentially to 4.66 million units. ASP's dipped by \$1 from CQ1 '13 to \$60 in CQ2 '13; however, cost controls enabled the company to keep gross margins flat from the prior quarter at 28.2%.

HDD Supplier Summary, CQ2 '13, Units (M)

| | Consumer HDDs | | | | Desktop HDDs | | | | Mobile HDDs | | | | Enterprise HDDs | | | | Total HDDs | | | |
|-----------------|---------------|--------|--------|-------|--------------|------|--------|--------|-------------|-------|--------|-------|-----------------|--------|--------|--------|------------|--------|--------|--------|
| | 3.5" | 2.5" | <=1.8" | Total | 3.5" | 2.5" | <=1.8" | Total | 3.5" | 2.5" | <=1.8" | Total | 3.5" | 2.5" | <=1.8" | Total | 3.5" | 2.5" | <=1.8" | Total |
| Seagate CQ2 '13 | 5.71 | 0.40 | | 6.11 | 20.09 | | | 20.09 | | 19.47 | | 19.47 | 5.43 | 2.79 | | 8.22 | 31.23 | 22.66 | | 53.89 |
| CQ1'13 | 5.25 | 0.58 | | 5.83 | 20.96 | | | 20.96 | | 21.37 | | 21.37 | 4.05 | 3.49 | | 7.54 | 30.26 | 25.44 | | 55.70 |
| Change QTQ | 8.8% | -31.0% | | 4.8% | -4.2% | | | -4.2% | | -8.9% | | -8.9% | 34.1% | -20.1% | | 9.0% | 3.2% | -10.9% | | -3.2% |
| CQ2 Share | 64.2% | 7.1% | | 42.1% | 50.5% | | | 50.5% | | 31.4% | | 31.4% | 48.6% | 46.4% | | 47.8% | 52.2% | 30.8% | | 40.4% |
| Toshiba CQ2 '13 | 0.21 | 1.63 | 0.02 | 1.86 | 2.73 | | | 2.73 | | 13.95 | | 13.95 | 0.16 | 0.91 | | 1.07 | 3.10 | 16.49 | 0.02 | 19.61 |
| CQ1'13 | 0.17 | 1.64 | 0.23 | 2.04 | 2.74 | | | 2.74 | | 14.01 | | 14.01 | 0.33 | 0.94 | | 1.27 | 3.24 | 16.59 | 0.23 | 20.06 |
| Change QTQ | 23.5% | -0.6% | -91.3% | -8.8% | -0.4% | | | -0.4% | | -0.4% | | -0.4% | -51.5% | -3.2% | | -15.7% | -4.3% | -0.6% | -91.3% | -2.2% |
| CQ2 Share | 2.4% | 29.1% | 100.0% | 12.8% | 6.9% | | | 6.9% | | 22.5% | | 22.5% | 1.4% | 15.1% | | 6.2% | 5.2% | 22.4% | 100.0% | 14.7% |
| WDC CQ2 '13 | 2.98 | 3.57 | | 6.55 | 16.95 | | | 16.95 | | 28.51 | | 28.51 | 5.58 | 2.31 | | 7.89 | 25.51 | 34.39 | | 59.90 |
| CQ1'13 | 3.33 | 3.20 | | 6.53 | 19.66 | | | 19.66 | | 26.77 | | 26.77 | 5.10 | 2.11 | | 7.21 | 28.09 | 32.08 | | 60.17 |
| Change QTQ | -10.5% | 11.6% | | 0.3% | -13.8% | | | -13.8% | | 6.5% | | 6.5% | 9.4% | 9.5% | | 9.4% | -9.2% | 7.2% | | -0.4% |
| CQ2 Share | 33.5% | 63.8% | | 45.1% | 42.6% | | | 42.6% | | 46.0% | | 46.0% | 50.0% | 38.4% | | 45.9% | 42.6% | 46.8% | | 44.9% |
| Total CQ2 '13 | 8.90 | 5.60 | 0.02 | 14.52 | 39.77 | | | 39.77 | | 61.93 | | 61.93 | 11.17 | 6.01 | | 17.18 | 59.84 | 73.54 | 0.02 | 133.40 |
| Total CQ1 '13 | 8.75 | 5.42 | 0.23 | 14.40 | 43.36 | | | 43.36 | | 62.15 | | 62.15 | 9.48 | 6.54 | | 16.02 | 61.59 | 74.11 | 0.23 | 135.93 |
| Change QTQ | 1.7% | 3.3% | -91.3% | 0.8% | -8.3% | | | -8.3% | | -0.4% | | -0.4% | 17.8% | -8.1% | | 7.2% | -2.8% | -0.8% | -91.3% | -1.9% |

Executive Summary

HDD Shipments Application Matrix, CQ2'13

- **Mobile HDDs:** Mobile HDD shipments dipped only slightly from the prior quarter, declining 0.4% to 61.93 million in CQ2 '13. For the quarter, the small decline in sequential shipments was indicative of preparations for the release of new Intel Haswell-based notebook PCs and some early builds for CQ3 back-to-school demand. Notebook PC demand, however, remains very muted and even with second half seasonal increases, the 2013 PC market is projected to decline from the prior year by more than 8%. Average capacity remained nearly flat from the prior quarter at 610 GB, resulting in an exabyte decline that matches the modest unit drop.
- **Desktop HDDs:** Desktop HDDs were the weakest segment in CQ2 '13, dropping 8.3% from the prior quarter. With seasonal weakness in both desktop PCs and external HDDs, average capacities declined by 15 GB to 928 GB and exabytes fell by 9.7% to 36.91 exabytes. Even though PC demand is suppressed in 2013, corporate budget clearing activities toward the end of the year along with holiday sales of external HDDs should boost desktop HDD shipments during 2H '13.
- Enterprise HDDs: The enterprise HDD demand in CQ2 was up sharply due to strong demand for hearline HDDs. Hyperscale companies expanding and deploying new datacenters have fueled demand for capacity optimized HDDs and for the quarter, nearline HDD units jumped over 1 million units, or over 12%, from CQ1 to end at 9.38 million. Traditional, or performance-optimized, enterprise HDDs also moved slightly higher sequentially, rising from 7.68 million in CQ1 '13 to 7.80 million in CQ2 '13. Although nearline demand fluctuates depending on the timing of datacenter build-outs, the increasing number of large hyperscale players has apparently smoothed out the demand spikes, driving nearly consistent quarter-to-quarter growth since late last year. Capacity shipped also grew smartly with the unit increase, jumping nearly 14% to 23.55 exabytes.
- Consumer Electronics (CE) HDDs: The vast majority of CE HDDs are consumed by xVRs or set-top box recorders a market that is usually not affected as strongly by seasonal buying the seasonal buying patterns that drive client applications. Total CE shipments ticked up a modest 0.8% to 14.52 million units, with increases in both 3.5" and 2.5" form factors. Late in CQ2 '13, both Microsoft and Sony announced new gaming consoles that will ship with 500 GB 2.5" CE HDDs. Even though the gaming market has been transformed by mobile devices in recent years, the release of new console platforms this year will drive measurable increases in the second of the year for 2.5" CE HDD units. Average capacity increases for xVRs drove an 8% increase in capacity shipped, rising to 10.36 exabytes.

| | Co | onsumer HDE |)s | Desktop HDDs | | | Mobile HDDs | | | E | nterprise HDI | Os | Total HDDs | | |
|-----------------|---------|-------------|---------|--------------|---------|---------|-------------|---------|---------|----------|---------------|----------|------------|--------|--------|
| | CQ2'12 | CQ1'13 | CQ2'13 | CQ2'12 | CQ1'13 | CQ2'13 | CQ2'12 | CQ1'13 | CQ2'13 | CQ2'12 | CQ1'13 | CQ2'13 | CQ2'12 | CQ1'13 | CQ2'13 |
| 3.5" Units | 10.73 | 8.75 | 8.90 | 46.71 | 43.36 | 39.77 | | | | 11.75 | 9.48 | 11.17 | 69.19 | 61.59 | 59.84 |
| Revenue (B\$) | \$0.51 | \$0.43 | \$0.44 | \$2.42 | \$2.20 | \$1.93 | | | | \$1.90 | \$1.51 | \$1.54 | \$4.83 | \$4.15 | \$3.90 |
| Avg. price | \$47.12 | \$49.69 | \$49.00 | \$51.88 | \$50.77 | \$48.41 | | | | \$161.51 | \$159.45 | \$137.62 | | | |
| Avg. capacity | 600 | 911 | 960 | 786 | 943 | 928 | | | | 1,423 | 1,842 | 1,849 | | | |
| Main GB/disk | 500 | 667 | 1,000 | 500 | 667 | 1,000 | | | | 146 | 667 | 667 | | | |
| Leading GB/disk | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | | | | 300 | 800 | 800 | | | |
| Exabytes | 6.37 | 7.97 | 8.55 | 35.94 | 40.88 | 36.91 | | | | 16.58 | 17.39 | 20.66 | 58.89 | 66.24 | 66.11 |
| 2.5" Units | 9.13 | 5.42 | 5.60 | 4 | | | 72.00 | 62.15 | 61.93 | 6.08 | 6.54 | 6.01 | 87.21 | 74.11 | 73.54 |
| Revenue (B\$) | \$0.42 | \$0.22 | \$0.22 | | | | \$3.95 | \$2.99 | \$2.94 | \$1.03 | \$1.04 | \$0.83 | \$5.40 | \$4.25 | \$3.98 |
| Avg. price | \$45.54 | \$40.13 | \$38.42 | | | | \$54.87 | \$48.07 | \$47.44 | \$169.64 | \$159.49 | \$138.33 | | | |
| Avg. capacity | 317 | 289 | 323 | | | | 509 | 612 | 610 | 407 | 512 | 482 | | | |
| Main GB/disk | 320 | 500 | 500 | | | | 320 | 500 | 500 | 146 | 200 | 300 | | | |
| Leading GB/disk | 500 | 500 | 500 | | | | 500 | 500 | 500 | 300 | 300 | 300 | | | |
| Exabytes | 2.90 | 1.57 | 1.81 | | | | 36.58 | 38.01 | 37.80 | 2.47 | 3.35 | 2.90 | 41.95 | 42.93 | 42.50 |
| <=1.8" Units | 0.63 | 0.23 | 0.02 | | | | | | | | | | 0.63 | 0.23 | 0.02 |
| Revenue (B\$) | \$0.04 | \$0.02 | \$0.00 | | | | | | | | | | \$0.04 | \$0.02 | \$0.00 |
| Avg. price | \$67.71 | \$66.00 | \$65.00 | | | | | | | | | | | | |
| Avg. capacity | 159 | 160 | 160 | | | | | | | | | | | | |
| Main GB/disk | 160 | 160 | 160 | | | | | | | | | | | | |
| Leading GB/disk | 220 | 220 | 220 | | | | | | | | | | | | |
| Exabytes | 0.10 | 0.04 | 0.00 | | | | | | | | | | 0.10 | 0.04 | 0.00 |
| Total Units | 20.49 | 14.40 | 14.52 | 46.71 | 43.36 | 39.77 | 72.00 | 62.15 | 61.93 | 17.83 | 16.02 | 17.18 | 157.03 | 135.93 | 133.40 |
| Exabytes | 9.37 | 9.58 | 10.36 | 35.94 | 40.88 | 36.91 | 36.58 | 38.01 | 37.80 | 19.05 | 20.74 | 23.55 | 100.94 | 109.20 | 108.62 |
| Revenue (B\$) | \$0.97 | \$0.67 | \$0.65 | \$2.42 | \$2.20 | \$1.93 | \$3.95 | \$2.99 | \$2.94 | \$2.93 | \$2.55 | \$2.37 | \$10.27 | \$8.41 | \$7.88 |