



- **MEMORY UPDATE:**  
Current Situation   Short-Term Forecasting   Long-Term Forecasting   [Market Outlook](#)
- **CPU UPDATE:**  
Current Situation   Short-Term Forecasting   Long-Term Forecasting   [Market Outlook](#)
- **IC UPDATE:**  
Current Situation   Short-Term Forecasting   Long-Term Forecasting   [Market Outlook](#)
- **FINISHED GOODS UPDATE:**  
Current Situation   Short-Term Forecasting   Long-Term Forecasting   [Market Outlook](#)
- **QUALITY UPDATE:**  
Current Situation   Short-Term Forecasting   Long-Term Forecasting   [Market Outlook](#)

## MEMORY UPDATE

19-May-2008



### "Memory Update"



#### CURRENT SITUATION

During the last couple of weeks we have seen module pricing go on a bit of a rollercoaster ride. Among increased trading activity, pricing on 1G 667 UDIMM pricing jumped above \$20 but has since settled to the \$19-19.50 range. The 800MHz flavor was even busier and pricing saw as high as \$22 before dropping down to \$20.50-\$21. The market is so quick to raise price as soon as someone comes to the spot to buy, but we see how quickly reality sets in when it becomes clear that it isn't going to be consistent. The fact remains that even though the manufacturers want to raise the price, OEMs aren't biting.

The SoDIMM market remains tighter and therefore more consistent with activity. Pricing on 1G is holding strong at \$20-21, while 2G are in the \$45 range.

1G and 2G FB DIMMs remain tight in the open market, with prices jumping above the \$40 and \$70 mark respectively. As mentioned previously, some manufacturers are substantially lower, so opening up the AVL is beneficial.

On the chip front, there are still opportunities on SDRAM and DDR1 x16 chips. On the DDR2 side is where the market is constrained. Supply is quickly disappearing on 128x8 and 64x8 configurations. Pricing ranges

from \$2.20-2.40 and \$1.30-1.50 respectively.



#### SHORT-TERM FORECASTING

Fusion is expecting UDIMM pricing to continue to soften through the end of the month. It seems apparent that OEMs just aren't going to budge on their contract pricing. We are expecting product to continue to spill into the spot, and pricing should remain stable or possibly drop a bit. However, any whiff of an OEM coming to the spot for product will raise the price quickly because there aren't monster quantities available.

The SoDIMM market probably won't drop much if at all during the last couple weeks of May. There isn't much product and trading is steady. The manufacturers don't seem to be feeling as much pressure here.



#### LONG-TERM FORECASTING

As previously mentioned, the biggest thing on horizon is DDR3. As of now, pricing is still much higher than DDR2 making it very hard to justify its place in the market. Over-clockers and the like are using DDR3, but the volumes still aren't there. The market still needs a driving force to push the technology, as well as a lower cost point.

### CPU UPDATE

19-May-2008



#### "CPU Update"



#### CURRENT SITUATION

Intel seems to have put a bandage on the Wolfdale desktops for now.

Pricing is still trading at a premium over Intel list, but only around \$10 instead of \$20+. OEMs are still keeping their eye on them because they are barely getting by, but there is some product available in the spot if needed. The situation remains, such that the first person out to buy in volume will get off easy, while the rest will scramble. Rumors of a Q3 price drop on Q6600 are continuing to push the price down. Suppliers with stock are looking to unload before the official date is released. Currently product can be found in the \$200 range.

The mobile space also remains relatively quiet, but the T8x00 and T9x00 remain on the watch list. Pricing is around direct now but supply is not loose by any means. There has been some activity on T7x00 where supply is very tight.

Many customers are keeping their eye on the Woodcrest family of server chips. After the earthquake at the Intel packaging plant, rumor was that this family would be effected. Product is tight as is, so we will continue to monitor the space.



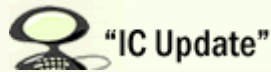
#### SHORT-TERM FORECASTING

It's tough to say what the market is going to do in the near term. Supply is "ok" for most of the mainline sku's, but not enough to be completely stable. A decent-sized OEM purchase could put a serious dent in supply on many different families or procs. Also, different customers have their eye on different families as potential problems. Concerns range from Celerons all the way up to Wolfdale's. Fusion is just keeping a pulse on the entire space to see which is the first dam to break.



#### LONG-TERM FORECASTING

Intel's Montevina platform is still set to be a driving force in the market on the processor and memory side. This will not occur until 2009, even though the release is mid-2008. Fusion will also continue to monitor the Intel Atom procs. We have yet to see any trading in the spot market, but if supply is as bad as expected, customers will be scratching and clawing for product which usually leads to open market spending.

**19-May-2008**

Numonyx, the merger between ST Micro and Intel, is beginning to face some expected production delays. Specifically, the Nor-Flash products are experiencing recent market shortages. Several Strataflash parts are currently in severe shortage. These are mainly: JS28FxxxJ3D-75 series, TE28FxxxJ3D-75 series, and RC28FxxxJ3D75 series in 64 mbit and 128 mbit. Strataflash is the most common type of Nor-Flash that Numonyx produces. Nor-Flash as a whole is used in a many applications, including cell phones, PDAs, MP3 Players, Set Top boxes, Routers, Printers, Networking Hubs & Switches, Automotive, GPS, Other Mobile devices, Firmware, and more. Lead times on these parts have stretched out to 12 weeks.

One reason for the Numonyx Strataflash shortage could be due to production lulls resulting from due the merger. Another possible explanation is the J3D Family could be undergoing a die shrinkage. This will bring the current version which is 130 nanometers down to 65 nanometers. Moreover, this will give the part more die per wafer, make it faster, as well as reduce the cost. Current users of the J3D will have to spec in the new version because this die shrinkage will include a new part number. This change is expected to happen later this year. This possible change might be causing users to take on additional stock at this time.

Pulse Engineering demand will be increasing over the next several weeks on multiple lines. The earthquake in China has shut down one of Pulse's fifteen active plants. Parts being affected include H1102NL, H2019NL, H062NL, HX1188NL, HX5008NL, PE68624NL, among others. Most of the production at this plant was Magnetic Power Modules, which are used in Telecom Infrastructure Equipment, Customer Premises Equipment, Audio Interface Applications, and Emerging Applications such as VoIP. This plant only accounts for 5% of total production at Pulse. This week has been spent assessing the damage and allowing employees to stay home for safety reasons. No new orders will be scheduled at this point, as they will attempt to fill only backlog until they are at 100% capacity. An

official determination of damage to the facility and potential lead times is expected to be released early this week, though Pulse did confirm that the damage to the plant was not extensive and the shutdown was mostly precautionary for employee's wellbeing. However, manufacturers who use these lines should consider taking on buffer stock as the effect on lead times will obviously be downplayed by Pulse, and could have a more pronounced upshot over the coming weeks.

The demand for mobile phones is holding up even as the economy slows, and that is causing the semiconductor market to remain steady. Companies like National Semiconductor and Texas Instruments, both huge players in the semiconductor market, are getting more than a third of their sales from mobile-phone companies. Fusion is continually seeing requirements from our customers for National Semiconductor and TI chips used in applications such as mobile devices. We continue to support them with their needs through steady flow of business in this market. For National Semiconductor, some examples of series we are seeing requirements on are the LP5900 series which is a 150 mA Linear Regulator (ultra low noise), as well as any of the LM series that include power converters, low-dropout regulators and low-dropout positive regulators. For some of these series, Fusion is hearing that lead times are being pushed out by a few weeks. We are predicting that this could only be for a short time, as larger customers were placing orders with the factories for more product than originally forecasted.

**19-May-2008**



### **"Finished Goods Update"**

- PATA  
PATA still remains a topic of discussion with our OEMs as well as their service sites. It has really become an issue, especially with low density 2.5" notebook hard drives. We have been selling quite a bit of 60GB and 80GB in Hitachi/IBM, as well as some Toshiba 60GB and 80GB. Where the product line has been EOL for many months now, the transition with production is moving more and

more to their SATA counterparts. But, with service it remains, and will remain, an issue for quite some time. We have been very successful in offering upgrade options in the PATA family from either the same MFG, or an alternate MFG that would have the exact same specifications. In regards to the desktop arena, PATA is less of a problem, but some issues still remain in the 120GB and 160GB capacities.

- SATA IDE

The SATA market still remains sluggish, and pricing is still on a normal pace of decline. Nothing new to report on further accelerated price erosion. This seems normal for this time of year and inventory levels are still larger than Authorized Disty's would like. They have to use more and more SPA dollars to create opportunities to move inventory. We are always trying to monitor price changes in the market and, by doing so, hope to help a few customers who have allowed themselves the flexibility to operate in the market in times of cost savings. We will continue to see price erosion on the 500GB – 1TB HDD's through the Quarter. Seagate is priced slightly lower on the 8MB and 16MB cache HDD's than WD. We are still waiting for Samsung and WD to finally introduce their 32MB Cache line. Currently Seagate and Hitachi own that market.

- SCSI

Many customers are still coming to us with 10,000rpm issues. We expect this to remain a problem going forward, especially with service sites and repair depots, mainly on the 36GB to 146GB models. The problem is starting to get a little better, as the repair sites upgrade to the 15,000rpm family in their respective MFGs. The Savvio line by Seagate, which includes the 10k drives, is in VERY high demand and parts are still very scarce. The newer 15k drives are easier to locate, and we've seen some spotty demand on the initial launch models by Seagate - particularly with the ST336745 and ST373207 (36GB and 73GB) models. We have started to see some price erosion this week on a few higher 15k models by Seagate in trying to accelerate sales.

- 24/7 Drives (continual power)

This is a HDD that is designed to run continuously, 24/7. Seagate models all end with an "NS" suffix, and have been under constraint since inception. This is one we are constantly helping customers with, and are able to have some success with from time to time. We are still seeing weekly requirements for these drives, and where it was less on price and more of finding... that option is slowly moving to more on price. Lead times are still extended in the spot market, but these drives are getting easier to obtain. Prices

are still at a premium, but the situation is improving.

- 2.5" Notebook

Not much of a change from last week. The market is still soft for the standard SATA drives. Pricing is very depressed, especially in the 100GB+ capacities. We have seen prices on a bi-weekly basis, and there are some great PPV opportunities out there in Hitachi and Fujitsu product. As mentioned above, the situation with the PATA line is very tough. We're working hard to offer EOL opportunities and inventory programs to our PATA customers to help keep their products on schedule while keeping prices under control.

**19-May-2008**



Fusion has a robust process for avoiding counterfeit product. It incorporates industry leading receiving and inspection processes that have been customer tested and verified. They include stringent ISO 9001:2000 certified procedures and start from sourcing and end with a \$10 Million anti-counterfeit insurance policy to protect our customers.

Trending for counterfeit parts was steady with three parts being reported. This has been steady since the month of January.

Counterfeit:

- Everlight - 1222SDRUGCS530A2TR8
- Xicor - X20C04DM-20
- St Micro - STB80NF55-06T4

Re-marking technology is becoming increasingly complex. It appears counterfeiters are beginning to use UV cured ink with UV ovens. These markings can not be removed without damaging the part. They can only be spotted through subtle discrepancies such as font changes. There are also counterfeiters reportedly buying excess laser equipment and using the

equipment to remark parts.

Packaging continues to be the top issue with approximately 60% of supplier issues falling into this category. This includes lack of proper moisture protective packaging, desiccant and HIC, creating additional costs and added time for baking product.

If you cannot view the graphics