

## MEMORY MODULE PRICING TRENDS

### ***How Some Office Equipment Manufacturers and Suppliers Operate in the Volatile Memory Module Market***

by: Denine Phillips, Tech-Write, LLC

This past January marked the end an 18-month free-fall in memory prices, primarily impacting the price of modules made of DRAM (Dynamic Random-Access Memory) and SDRAM (synchronous DRAM) chips. During that time period, steep discounting on memory module occurred due to excess inventory, reportedly caused by lagging PC sales.

Memory manufacturers were simply generating more product than the industry needed. Production slow downs, coupled with better than expected holiday PC sales, has leveled supply and demand and, in some instances, has created module shortages. Consequently, memory module prices for everything from consumer electronics to office products (digital copiers, printers, scanners, fax and multifunctional devices) are on a fast track upward.

"The pricing trend has really turned around, having more than doubled in the last three months," says Lawrence Reusing, vice president of business, Memory Experts, Inc. (Montreal, Quebec, Canada; 888-422-6762), a leading provider of memory, hard drive subsystems and networking technologies. Reusing forecasts a 15 to 20 percent upward pricing trend to continue over the next :

With last year's abundant chip supplies, the office equipment manufacturer, called an OEM (Original Equipment Manufacturer) often paid prices below the chip manufacturer's cost. Fast-forward to April 4, 2002 and EBNews ([www.ebnews.com](http://www.ebnews.com)) reports that deep cuts in DRAM production in 2001 reduced inventory, affecting the industries "capacity to fill new orders." The hope for chip vendors is that price increases will restore profit margins. What may also impact pricing in 2002 is the merger of two major DRAM manufacturers, Micron and Toshiba Corporation, a move that EBNews says "is expected to further restrict supplies and help stabilize prices."

Despite the rise in memory module prices, one major OEM, Panasonic Corporation (Secaucus, NJ; 800-211-7262), has no immediate plans to pass a recent 5 percent increase on to its customers. According to Paul Wharton, Panasonic's national marketing manager, "we would rather absorb the cost rather than raise prices, something that is problematic from a logistics and public relations standpoint, adding "it's a volatile market and pricing shifts are simply part of the business." Likewise, Delkin Devices (Poway, CA; 800-637-8087), a major supplier of memory modules to the office automation industry, will ride out price swings of 5 to 10 percent. However, as Mark Pearce, Delkin's vice president of sales says, "with huge re-valuations in Japan, such as the recent four-fold increase, they have to do something. "You can only lose money for a certain amount of time."

### **The Slow Pace of Change**

Price increases are inevitable, but as Rich Holloway, director of technical operations for Buyers Laboratory notes, "large companies can't adjust prices – up or down - fast enough to keep up with the street." Case in point is Konica Business Technologies, Inc. (Windsor, CT; 800-456-6422) who is now adjusting prices downward after experiencing a doubling of prices back in 1999, following a Hong Kong chip factory fire. Konica's marketing manager, Jena Braun, acknowledges that Konica has not kept pace with the fluctuations in memory chip market prices but says they are remedying the situation. "We plan to adjust our prices accordingly," says Braun. "Though the memory business is not a focal point for Konica, we are a 'one stop shop' for our strong dealer and direct channels."



*Photo courtesy of Memory Experts, Inc.*

## **Responding to a Challenging Market**

Interestingly some manufacturers are responding to these challenging conditions by exiting the memory market altogether. One such company is Brother International (Bridgewater, NJ; 908-704-1700). "It is a much too volatile market based upon the number of suppliers and availability," says Andy Schaeffer, printer product manager for Brother. Canon U.S.A. (Lake Success, NY; 800-848-4123) also does not sell memory modules, but instead refers customers to their dealers for upgrades and the associated service and support. Lexmark declined to be interviewed for this article, stating that "we play our cards very close to the vest when discussing this competitive category." Sharp Electronics, Inc. (Mahway, NJ; 800-237-4277) will continue to sell memory but has recently adjusted their business model, with memory modules going from a "sales" item to a "parts" item. Bill Barrick, Sharp's senior marketing manager explains, "by transferring memory options to the parts department, the sales group won't have the hassle of dealing with a low-margin commodity item."

## **Memory as a Value-Add**

Low margins aside, Panasonic views memory modules as a value-added service it provides to its dealer and has over the years been sensitive to customer and dealer demands for more economical memory upgrades for its extensive line of commercial office products. To deliver competitive pricing, Panasonic sources memory modules from third-party providers here in North America, as well as from their parent company, Matsushita. "My objective as a marketing manager is to drive down prices," says Wharton. "We negotiate lower prices from our North American suppliers and, in doing so, pass the savings on to our dealers." (See *Illustration 1*, "Memory Module Markup", page 5.)

## **Why Use Domestic Sources for Memory Modules?**

Memory suppliers, companies such as Delkin Devices, Inc., Memory Experts, Inc. and Kingston Technology (Fountain Valley, CA; 800-835-6575) provide a valuable service, competitive pricing and, most importantly, just-in-time inventory. According to Delkins' Pearce, "component prices can be exorbitant, but we nonetheless can offer OEMs 50 percent discounts over prices paid to their factory in Japan. Moreover, an order placed with Delkin at 3:00 PM on Wednesday arrives the next morning." Pearce adds that, "buying from Japan involves forecasting months in advance, an inexact science that could leave the company with too much or too little inventory. "Another good reason to source close to home."

Like Panasonic, Konica also sources memory modules here in the United States. "On occasion, we go back to Japan for a proprietary module, but most of our memory is sourced here," says Konica's Braun. "We jumped on the U.S. sourcing bandwagon when our engineering group began printer controller development, in the early days of digital. With a direct sales organization, we needed our own supplier in order to make memory upgrades quickly available to our major accounts." Braun also points out that they are very careful to source from vendors whose memory modules adhere perfectly to their specifications. "We send them detailed engineering specs and they send us samples to test," says Braun. "Only when their product is determined to work do we source from them."

Clearly, the trend has been away from factory-sourced to locally procured memory modules, effectively cutting out the parent company. Does losing market share in the parts business trouble companies like Matsushita? No, says Panasonic's Wharton, "the factory does not want to be an inhibitor to sales, especially on such a low-margin portion of the business. In reality, we are able to negotiate better prices. The factory deals with subcontractors in Japan, Korea and Taiwan and they may not be as aggressive when bargaining. We have a greater interest in negotiating harder for our dealers."

## **Is the Memory Proprietary? The \$64,000 Question**

What makes a memory module so special that it has to be purchased from the manufacturer? It is not usual to hear that a particular memory module is "proprietary," meaning that there are special physical and electrical characteristics that make the module unique. According to Memory Expert, Inc.'s Reusing, "proprietary products account for 30 percent of our new memory production," adding that, "generic modules are based on industry standard formats and use the same components." Does this mean that generic or off-the-shelf modules made for a PC, say a 128 MB DIMM of PC-133, can be plugged into a copier or printer? Lawrence says, "No. There are many subtleties and variation that must be taken into account." Delkins' Pearce also adds that, "a 128 MB DIMM for a printer controller may have two variations in speed, with four different configurations, or types of DRAM. These

controllers are brand-specific, and if not programmed right for the host controller, it won't work. So, while two modules may look alike, one will work and one will not. Some dealers will try to install memory purchased from a retail outlet like CompUSA only to find that it doesn't work. Others won't run the risk. "

### **Proprietary? Who Says?**

Though there are clearly special memory requirements for complex systems, Panasonic's Wharton has questioned the proprietary or "special" nature of memory modules in the past. "This was a concept perpetuated a few years ago by a manufacturer of printer controllers that required customers to purchase their memory at exorbitant prices, presumable to guarantee performance," says Wharton. Manufacturers would not ensure the performance of the product if third-party memory was installed. OEMs who questioned this business practice, stating "the module doesn't look special," and sent samples to memory manufacturers for testing and, in fact, found nothing unique. Panasonic, Konica, and undoubtedly others, said to U.S. memory suppliers "give us an equivalent." They ran their own bench tests and presto, it worked. There was no difference.

### **A One-Stop Shop**

Now, assuming a memory module is generic, why buy from an equipment manufacturer or a dealer, if you can save money by shopping around on the Web or visit a "brick and mortar" store? Panasonic Wharton says, "We make it simple. Buy from one source. You may pay a little more, but there is value in that we guarantee performance of the module in our products. Not only that, the dealer is buying from one source, without the hassle of having to set up and monitor another accounts payable. Yes, dealers can buy elsewhere, but will it work?"

In fact, Panasonic does not support the use of other manufacturers' memory devices in their products, stating: "for best performance, we recommend only genuine Panasonic parts and accessories." Similarly, Konica guarantees performance of memory modules that have been purchased from them. "Dealers sometimes request specs on memory, in order to buy from other sources, but we are up front in telling that they are taking a chance with off-the-shelf modules," adds Braun.

### **The OEM/U.S. Memory Supplier Relationship**

Can a dealer just pick up the phone and place an order with Delkin Devices, bypassing the OEM? That all depends on the agreement Delkin has with the OEM. That agreement may exclude dealers from buying direct. According to Delkin's Pearce, "we value the OEM partner relationship, allowing the OEM to partake in the business framework they wish, so a contract may state that we cannot sell to a dealer."

### **The "Rogue" Dealer**

The "rogue" dealer might use sources like Kingston Technologies ([www.kingston.com](http://www.kingston.com)), a company that manufactures a range of memory products for PCs, digital cameras and printers. Using their Web site's nifty Memory Configurator, select the manufacturer, memory type (or part number or model number) and search their database of products. Click "Where to Buy" and choose from "Retail Stores," "Resellers/E-tailers," "Distributors," or "System Builders." For example, choosing "Retail Stores" displayed Best Buy, Future Shop, Office Depot and OfficeMax. According to Kingston, you get "premium components, 100% testing, a lifetime warranty and 24/7 technical support with every module..."

### **Roll of the Dice?**

Is buying from a retail store or Web E-tailer necessarily a wise move? That would depend on the knowledge level of the buyer. (By the way, as prices climb, retail stores that can't quickly react to price fluctuations may have better prices than more nimble Web-based retailers.)

Memory specifications, if you can get them from the OEM, are complicated and must match exactly or you run the risk of the system, at best, not recognizing the added memory, at worst corrupting data. Quality, something that varies in memory modules, is a major issue. Install a low quality module and the product may work fine. On the other hand, the system may lock up or have frequent errors. Kingston Technologies reports that "the quality of DRAM chips, PC boards and other components used on the module are critical to the overall quality of the module.

Premium memory chips can cost up to 30% more than low-grade chips and high-quality PC boards cost about 50% more than lower quality alternatives.” So the question becomes, am I saving money by cutting corners? Is it safer to rely on proven sources, a.k.a. the OEM, where each module is tested and verified to work with a select piece of equipment?

As Delkin’s Pearce points out, if a dealer installs memory that doesn’t work in a customer’s high-speed printer, who will suffer? The dealer’s business is to keep that customer up and running. Why run the risk of installing unproven modules.”

### **Questions to Ask When Buying Memory**

So let’s presume you, like many of us, you don’t wish to concern yourself with such matters. Instead, you work directly with your dealer or direct sales representative when upgrading your systems. In that event, there are questions you can ask to ensure that you gather important information. For starters, BLI’s director of technical operations, Rich Holloway, suggests asking a sales representative or system engineer the following questions:

- Can I purchase memory upgrades?
- Based on your familiarity with my applications, how much memory do I need?
- How many slots are open on the system for memory upgrades?
- Can I install the memory or do I have to have a technician come out?
- Will duplexing of multiple sets max out the memory?
- Is memory covered under the maintenance agreement?
- What kind of memory is compatible with my system -- does it take proprietary or generic (industry standard) memory?
- How do you guarantee the quality of your memory?

The memory module business, with thin margins, is more of a value-add proposition than a profit center for the manufacturers of office equipment. That means OEMs don’t focus on this portion of the business. They do, however, have an important objective, providing a convenience to their dealers and customers. Making that convenience work for you means knowing the right questions to ask.

### **Conclusion**

We are no longer in an oversupply situation in the worldwide memory module market. That means pricing for memory upgrades on office products such as copiers, printers, fax and MFPs could climb this year. But many factors - inventory in the pipeline, demand for new PCs (with memory-hungry operating systems), production levels in Asia, and even the time of year - will determine how significant those increases will be.

Where today you can buy a 64MB Lexmark Optra C 710n memory module for \$22.49, tomorrow that same module may cost double. On the other hand, check another source and you may pay less. It’s anyone’s guess. In fact, forecasting pricing trends in the memory module industry is far harder than predicting the direction of the stock market. By all accounts, it is impossible. One analyst bucked the trend and reported that “DRAM prices should fall during the first half of 2002, driven lower by weaker seasonal demand.”

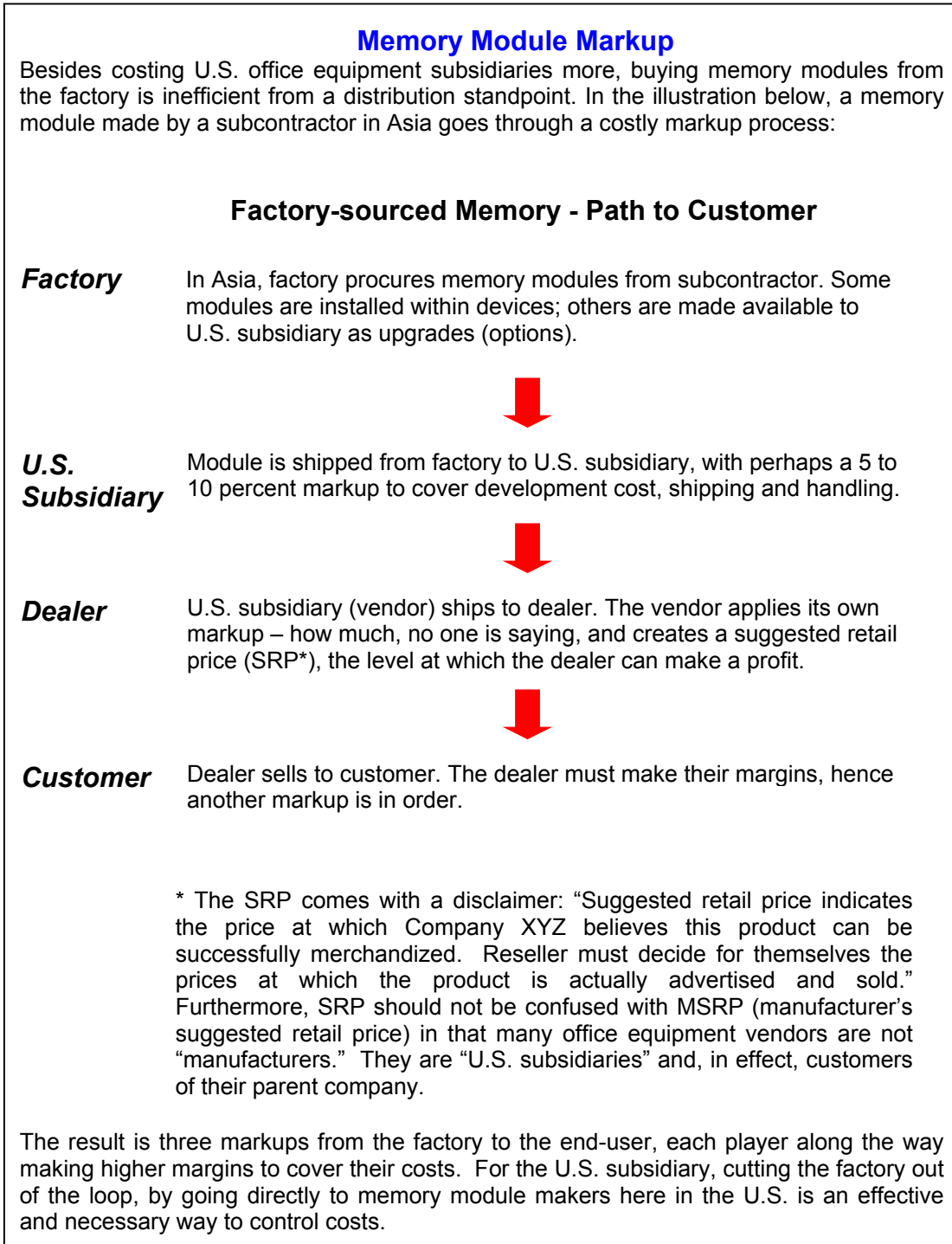
Clearly, no one knows what will happen in this volatile market. Price aside, you now have a better understanding of factors that drive the memory market, the internal dynamics of the OEM/supplier relationship and, most importantly, ways to procure memory based on your individual and/or business needs.

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Illustration 1



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