

|  |   |
|--|---|
| Big CD-Rs break into the mainstream market ..... | 2 |
|--|---|

## **Big CD-Rs break into the mainstream market**

StoreMaster CD-R 74 Pro Silver Line disc

2,330 words

1 May 1999

One to One

OTON

29

English

Copyright (c) 1999 Bell & Howell Information and Learning Company. All rights reserved.

BY KAREN FAUX

More expensive, more unreliable and with the potential to store piracy: the new 80 minute CD-R offers good and bad news in a still-growing recordable CD market.

With consumer confidence in technology having traditionally been built on manufacturers' guarantees that product will never let anyone down, the mass market introduction of the 80 minute CD-R represents something of a departure. The extended disc's failure to comply with Orange Book specifications inevitably means that some customers will be disappointed when they get their disc home and find it fails to do its job. While the unreliability of the product continues to be a cause for concern among manufacturers who have not yet committed to branding 700MB CD-Rs, those who have been bold enough to test the market are finding the results encouraging.

With high capacity discs retailing for approximately two to three times the cost of their 650MB counterparts, some CD-R producers believe the format could help to revive profitability. Retail prices have dropped dramatically since the recordable boom of 1996 - 7, when the ensuing tide of overcapacity and cheap product took price tags down to around \$1 - \$2 for a disc. But longer playing CD-Rs are now proving that they can carry a premium. Memorex Dysan recently fired the opening shots in what could prove a high street battle with its 80 minute CD-R priced at around \$2.50.

Apart from the problem that 80 minute CD-Rs go beyond the designated technical parameters, there are also underlying fears that they could stoke piracy which drains the audio and multi-media industries of millions of dollars each year. By the same token most manufacturers recognise that an expanding PC generation and increasingly complex corporate sector genuinely require CD-Rs with greater storage capacity.

"The larger capacity discs are nothing new in themselves," says Steve Angel, managing director of UK equipment house HHB Communications. "They have always been available through the pro audio business and have been useful for mastering certain audio projects such as lengthy classical recordings. Everyone has been waiting for someone else to make the first move when it comes to branding these longer discs. While the technical specification does not allow for the longer playing time, it has to be said that they do usually work. But the manufacturer has no come-back if they don't and they have to be sold on that basis. It is not a product which can carry the usual recommendations."

Angel believes that the 80 minute CD-R has come at a time when the format is back on a roll, mainly because both hardware and software can be purchased cheaply. At Mitsubishi Chemical Corporation subsidiary Verbatim, optical product and technical marketing manager Simon Harvey corroborates that sales are climbing: "Hardware prices of the slower drives have dropped as the higher speed drives have been introduced," he says. "In the light of this, many people are happy to take up the lower cost drives and this is fuelling greater demand for CD-R."

Verbatim currently sells its own and Mitsubishi branded product, and claims to be the second biggest international supplier of CD-R product with a 15% share of the European market. "We are currently concentrating on CD-R up to 8x speed compatible, CD-R audio and CD-RW audio. CD audio products are aimed at the consumer audio market whereas CD-RW is aimed at the computer sector," says Harvey. "Currently, we do not manufacture any CD-R discs over 74 minutes capacity and do not plan to at this stage."

However, recordable media manufacturer Traxdata is keen to step up its marketing of the 80 minute CD-R to both high street and professional users. "Since we started promoting the 700 MB CD-R at the end of last year the format has become increasingly popular," says Aled Roberts, sales manager for professional products. "At 80 minutes, 700MB CD-Rs can accommodate most audio compilations and this is a big plus in consumers' eyes. Coupled with this there is a growing demand for increased storage capacities generally."

Roberts believes that promotional investment in CD-R is not necessarily a short term strategy. "CD-R is going to be around for some while to come," he says. "We estimate that 95% of PCs will soon come with CD drives and given that 75% of households have CD players, compatibility is vital. CD-R will undoubtedly co-exist with DVD-R."

From Memorex Dyan's perspective, there are plenty of consumers out there who require more than 650MB capacity. The company is targeting its new CD-R 700MB to a wide range of end-users and is promoting the disc as being suitable for storing data, photographs and corporate presentations for relatively little extra cost. The CD-R700MB increases the PC user's ability to create memory intensive files and store them for future use. "We recognise that data management has become more important to the PC user than ever before," says Michael Remp, product manager for media.

"While some people are content to continue using 650MB CD-Rs, many others now demand more capacity for the increasing range of applications on offer."

Promoted on its ability to copy the largest CD files and offering 50MB more space than standard CD-R media, the new disc is scratch resistant and compatible with all Memorex and other high-end CD writers, CD-ROM and audio devices. With a price tag of around \$2.5 the disc has been finding no shortage of takers through major high street retailers.

Another optical disc manufacture, MPO, has also recently launched an 80 minute disc as part of the expansion of its Hi Space media range. The company claims that its gold coating gives the disc a lifetime of over 100 years, making it a good archiving format.

Benoit de Cuverville, Hi Space product manager for recordable media, says: "This launch is a logical move and we believe that this kind of product will become a standard in the near future. Many people criticise the format because it widens the scope for piracy. However, the threat is small compared to that posed by the Internet and the solution is to implement encryption rather than put a bar on certain formats."

At Philips, marketing manager Lawrence Walker corroborates that the move towards higher capacity discs is part of a natural progression. "CD-R capacities previously increased from 550MB to 650MB in the mid-Nineties and greater capacity is always required by the storage media industry," he says.

However, Walker is alert to the the short term problems posed to the consumer. "Early users may experience occasional read problems in both writers and players, whether due to ATIP or marginal read-out characteristics. Solutions for existing writers will most likely be available in the form of software upgrades from the writer manufacturer. New writers will accommodate the 80 minute disc. To safeguard against read-out problems in players the best defence for the consumer is to purchase high quality media from reliable vendors."

Philips and Sony are currently running tests in collaborations with OSJ and drive manufacturers to address problems of read-out and compatability. "A full report is imminent," says Philips' licensing manager Winslow Mimmagh. "We expect that many media will qualify in combination with the CD-R Orange Book II version 3.1 which enables writing at a 4x speed." This latest version of recording guidelines published last December established a single 1x to 4x recording speed standard for the CD-R market. Philips believes this will ensure that 4x writers become mainstream in the market. Mimmagh reports that the company is now working on extending CD-R's recording speed to 8x with the introduction of extended media specifications planned for later this year. "Our approach is that any CD-R is suitable for all speeds and for all drives," says Mimmagh. "While recording is more critical at higher speeds, early tests show that some 4x classifications may be suitable for 8x recordings and this is very encouraging."

Mimmagh is confident that tests will help CD-R to go further down the road as an indispensable consumer format. "At the moment the 80 minute disc is only marginally outside of Orange Book specifications with regard to areas such as lead-out, track pitch and scanning velocity," he says. "Further tests will undoubtedly lead to improvements and we can expect a proliferation of the product in the marketplace."

Market leader TDK is committed to sustaining investment in recordable media and has been quietly producing 80 minute CD-Rs for the last four years. "However, these discs have not been widely distributed," says Jean Paul Eekhout, product manager. "We are unhappy about the fact that they pose an element of risk to the customer. We expect that the standardisation bodies will issue guidelines on how they can be produced within Orange Book specifications and then the market will open up."

At optical disc manufacturer Koch Digitaldisc Dureco, the launch last year of its StoreMaster CD-R 74 Pro Silver Line gives it a good foothold in the recordable media market although it has no immediate plans to increase its production of larger capacity discs. "While we

do supply some 80 minute CD-Rs, we see that the price differential will ensure that demand for the 650MB discs remains higher. This is important bearing in mind that the latter is, in fact, suitable for most applications," says Gerhard Papst, technical director of KDG Austria and chief operational officer of the group.

While comparatively few optical disc manufacturers have invested in CD-R duplication, Koch has prioritised it as one of the keys to long term success. Papst reports: "In 1996 we decided that the time was right to enter the CD-R market. Our first line went into production at the beginning of 1997 and a second one was added the following year. As far as we know, we are the only manufacturer which has performance testing as a standard procedure in daily quality control and we can therefore ensure that the performance of our product is extremely stable."

Koch sees the ability to produce silver CD-Rs with its own technology as a safeguard against price pressures from Asian competitors and currently produces 24,000 CD-Rs a day. Papst is optimistic about prospects for CD-R's growth: "I see it expanding dramatically in the next two years," he says. "Lower CD recorder prices will undoubtedly boost consumer demand and its applications will grow, making it the 'digital paper' of the future."

Demand within the European market has by no means plateaued as far as Koch is concerned: "KDG has decided to double its CD-R production in the last quarter of '99 and expects to produce up to 50,000 CD-Rs a day in different formats. We believe there will be continuous explosion-like demand in Europe and meetings with Asian manufacturers suggest that demand in the region will climb to between 1-2 billion by 2000."

While substantial price erosion in the last 18 months has squeezed profitability for CD-R producers, there is a consensus that its affordability has extended its likely life-span. Most manufacturers predict that it will be at least another five years before DVD begins to substantially impact the market. Philips currently estimates that 650 million discs were sold worldwide in 1998, with Europe accounting for 50% of sales, the US for 35% and Japan for 7%. Lawrence Walker says: "The world market for CD-R media is projected to increase to 2500 million discs by 2003 and we foresee that product will co-exist with complementary DVD technologies."

Meanwhile at KDG, Gerhard Papst expects DVD recordable formats to enter the European market slowly: "Pressed DVD sales are now beginning to pick up and at first the DVD-Video sector will lead the way. It will take some time before DVD recordable media is down to a price level that makes it a real consumer product. One significant problem with DVD-RAM and DVD-R, is the royalties issue.

Therefore the CD-R, and partly CD-RW, will take the vast majority of the market for at least the next two years."

In the professional sector there is still considerable scope for the 80 minute CD-R to make its mark. Research consultancy Understanding & Solutions, projects that professional media sales in Western Europe will climb from 508 million this year to 614 million in 2000. Prospects look good for the 700MB disc to take an increasing share of that market.

However, those such as Papst have reservations about how quickly technical difficulties can be resolved: "Although there is some common understanding in the industry that the typical length of a standard CD is up to 75 minutes, none of the CD related specifications state capacity directly. Capacity is indirectly specified through start and end of program, radius, track pitch and nominal scanning velocity. When stressing all those parameters to the borders of the specified and allowable tolerances, it is theoretically possible to produce a disc with a maximum capacity of about 79.3 minutes and still be within all the CD specifications. But it will be very difficult to achieve this in mass production due to the small variations in the manufacturing process. This was already very difficult for the pre-recorded CD and it is much more difficult for CD-R."

Resolving the technical specifications of larger capacity discs will undoubtedly help CD-R to achieve a longer life and could provide a shot in the arm for established manufacturers. In the meantime it remains to be seen whether consumers will lose confidence before the 80 minute disc has really had a chance to prove itself.

Document oton000020010829dv510002n