

AMB2007-08

September 19, 2007

Introducing Blu-ray for AMOS™

*The Highest Density Optical Disc Backup Now Available
New, More Efficient Backup Software Also Available for DVD-RAM*

Dear Alpha Micro Dealer:

DVD-RAM has been a convenient backup format for many AMOS users. The compactness of DVD media, and the random-access capability of the resulting backup, has great appeal. In recognition that many AMOS users are outgrowing DVD's 4.7 GB capacity, Alpha Micro is pleased to introduce the next generation of optical disc backup, the Blu-ray drive.

Over 10 Times the Capacity of DVD-RAM

Developed by Sony, the Blu-ray media outwardly resembles CD and DVD discs. It comes in two capacities, 25 GB and an amazing **50 GB**. There are two kinds of discs: BD-R (write once) and BD-RE (rewritable). As of the date of this bulletin, typical pricing is \$25 for a 25 GB BD-RE disc, and \$56 for a 50 GB BD-RE disc.

It is worth noting that the competing high-capacity disc format, HD-DVD, only offers 15 GB and 30 GB media. Blu-ray was the obvious choice in keeping with Alpha Micro's philosophy of offering the very best in current hardware technology to our VARs.

The AM-411™ Internal Blu-ray Drive

Alpha Micro's initial Blu-ray offering is a universal drive, like our current DVD-RAM drives. It is capable of reading and writing a variety of CD, DVD, and Blu-ray formats, making it backwards-compatible with media in use by sites presently using DVD-RAM.

Our performance tests indicate that the Blu-ray drive using BD-RE media will perform about three times as fast as our current DVD-RAM drive. In terms of actual performance numbers, the Blu-ray drive with BD-RE media was able to write data at a speed of approximately 7800 blocks per second, while the current DVD-RAM achieved approximately 2500 blocks per second. **That's a speed increase of over 310%!**

The specifications are as follows:

- DVD-RAM: 5X
- BD-R DL: 2X
- BD-RE DL: 2X
- DVD+R: 6X
- DVD+R DL: 4X

- DVD+RW: 6X
- DVD-R: 4X
- DVD-R DL: 4X
- DVD-RW: 4X
- CD-R: 12X
- CD-RW: 12X
- Cache: 8MB

The AM-411 Blu-ray drive has an IDE interface and is intended for use on SuperFalcon™, Cardinal™, AM-8000™, Eagle 800™, and Eagle 750™ servers only.

The Blu-ray drive market is changing rapidly; it is likely that future drives may only come with a SATA interface, necessitating an adapter card for pre-SATA motherboards. As with similar products, Alpha Micro reserves the right to change drive models along with the market, however we will strive to keep pricing consistent.

Blu-ray Software Considerations

Two different backup and restore software packages are now available and are supported for use with both Blu-ray and DVD-RAM drives.

The existing DVD-RAM software (MAKDVD) is supplied with the Blu-ray drive and can be used with DVD media in a Blu-ray drive, just as it is with the current DVD-RAM drives. This provides up to 4.7 GB of data backup capacity and compatibility with existing DVD-RAM media recorded with MAKDVD.

In addition, a new software capability has been developed (MAKBD) and is also supplied to take advantage of the high data capacity Blu-ray media. MAKBD copies only “used blocks” from logical AMOS disk drives onto a DVD-RAM or Blu-ray media in a unique format, while the MAKDVD software writes a complete image of the logical drive. This new data backup technique is much more efficient since only used blocks are backed up, but it is not compatible with the standard MAKDVD format.

The new MAKBD software is significantly more efficient than the MAKDVD software, since it only backs up used blocks on the disk. For example, backing up a disk drive consisting of 130 logicals with a total size of 4 GB takes approximately 4176 seconds using MAKDVD. Using MAKBD, since only used blocks are backed up, the time will vary depending upon how much data has been written to the disk. If the disk is full, the time will be about the same as using MAKDVD, but if the disk is only half full, then the backup time using MAKBD will be half that of the MAKDVD software. Combine that result with the increase in writing speed set forth on page 1, and you can see just what an impact the Blu-ray product and new software will have on your system backup time.

Blu-ray drives sold by Alpha Micro include a PIC encodement for both the MAKDVD software and the new MAKBD software package.

Present users of MAKDVD with DVD-RAM drives can also add the new MAKBD software package in order to take advantage of the new used block backup style. The MAKBD software package requires a new PIC code.

See ordering details for these products in the attached *Reseller Supplement*.

Alpha Micro does not warrant that the MAKBD software package will work with any Blu-ray or DVD-RAM drives other than ones Alpha Micro has certified. Nevertheless, you may purchase a PIC encodement for the new software should you need to use a Blu-ray or DVD-RAM drive other than ones supplied by Alpha Micro.

Backup Becomes Exciting

When was the last time backup was exciting? It is now. Hardly any AMOS site would find 50 GB insufficient for their backup needs. And being a random-access medium like a hard disk, Blu-ray seems fit to displace streaming tape as the most convenient high-capacity backup option.