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FILE

Xebec Owl combines on-board controller, electronics

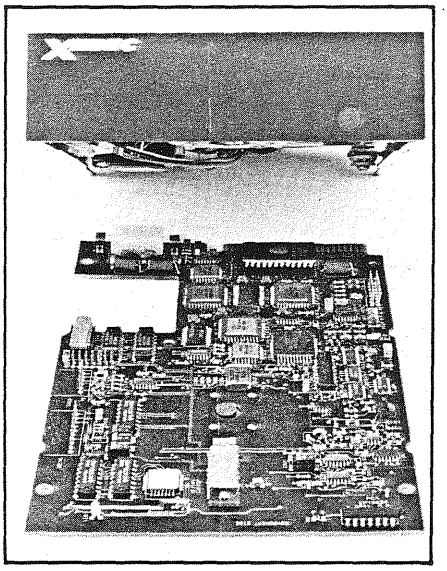
Tom Moran, Associate Editor

Xebec, San Jose, Calif., maker of intelligent Winchester disk drive controllers and subsystems, is introducing the Owl, a half-height, Shugart Associates systems interface- (SASI-) compatible, 5¼-inch Winchester disk drive with drive electronics and controller combined in one built-in printed-circuit board. Xebec claims the 10M-byte Owl is the first 5¼-inch drives with an on-board controller.

Xebec has also begun pilot production of its own head/disk assemblies (HDAs) at its plant in Sunnyvale, Calif. Previously, the company had manufactured only controllers, selling them and also complete subsystems that contained other manufacturers' HDAs.

According to James Toreson, chairman, president and chief executive officer of Xebec, the company is trying to reap the benefits of low cost, high quality and high reliability. He adds that, when the same manufacturer provides both drives and controllers, customers do not become the victims of suppliers that blame each other for failed subsystems. Toreson projects that system integrators should save from six months to a year of engineering time that would otherwise be spent in evaluation and compatibility testing of a new system.

The Owl measures 1.63 by 5.75 by 8 inches. The drive's data-transfer rate is 5M bits per second, and average access time is 99 msec. A band actuator and an open-loop stepper head position the four heads over the two metal-oxide platters. The Owl's controller is compatible with Xebec's S1410 controller and offers position verification, automatic seek, automatic command retry, programmable sector interleaving, multisector data transfer and automatic cylinder and head switching. The integration of the electronics allows the host to receive high-level SASI fault-status and system-configuration messages.

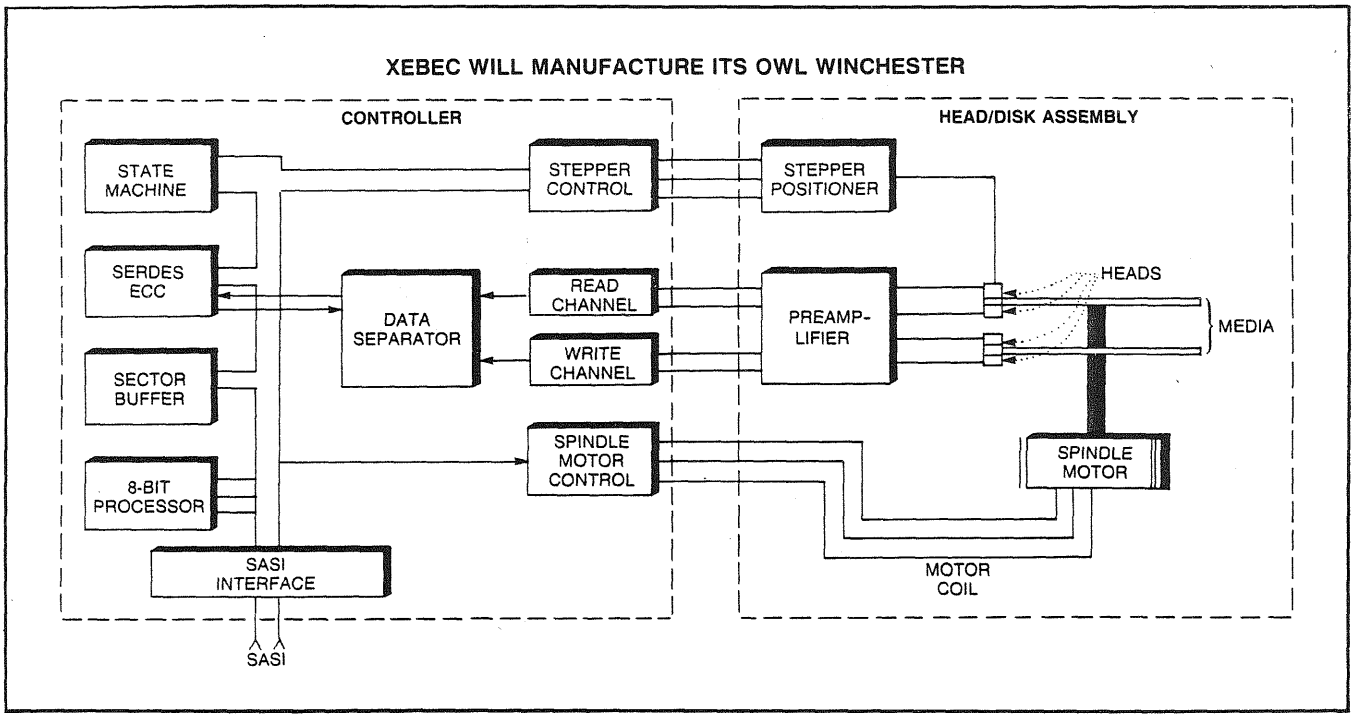


The half-height, 5¼-inch Xebec Owl Winchester disk drive *includes a single printed-circuit board incorporating both drive electronics and controller. Elimination of the interface between controller and drive electronics allows system integrators to use high-level SASI fault-status and system-configuration messages.*

Xebec expects to manufacture large volumes of the Owl at its new 150,000-square-foot plant in Carson City, Nev. The facility will have three HDA assembly lines, each with a 5,000-square-foot clean room. Toreson says Xebec will announce a second source for the Owl that, if necessary, will augment the company's ability to produce HDAs.

Owl uses LSI technology

Xebec was able to combine the Owl's drive electronics and controller by using surface-mounted chips



The Xebec Owl's one integral printed-circuit board *incorporates both disk controller and drive electronics. LSI surface-mounting technology allows Xebec to eliminate one printed-circuit board and the ST-506 analog interface.*

and large-scale integration and by eliminating the need for the separate ST-506 interface that normally connects the controller to the drive electronics. The interface cable, drivers and receivers, a microprocessor and its support chip are all unnecessary. Xebec also eliminated the controller's ability to support multiple drives, a function that Toreson says is seldom-used in the small systems for which the Owl is intended.

Xebec expects to announce a 3½-inch version of the Owl. Toreson says the initial capacity of the 3½-inch drive will likely be 10M bytes and will be raised to 20M bytes when improved heads and media become available. Xebec will sell the Owl through its direct sales force and selected distributors, with units possibly going to large computer chain stores by next year.

Jim Porter, editor of *Disk/Trend Report*, Los Altos, Calif., says the Owl has a good chance of success. "[Xebec is] offering a very appropriate product that potentially has a very wide customer base. The general climate among system manufacturers is acceptance of SASI and the small computer system interface (SCSI), which is closely related, for a very high proportion of the systems now under development. This is the beginning of [realizing] a long-established Xebec intent to make its own disk drives."

The company expects to ship the Owl in pilot production quantities in August. They will be priced at less than $500 in OEM quantities. □