Bubble memory board features large capacity and on-board controller

The Intel i8724 is a high-density magnetic bubble board that combines up to 512K bytes of storage with an interface for Multibus systems. Offering nonvolatile bubble memory, the board provides all necessary support chips and is designed for applications requiring high data integrity, tolerance to harsh environments, and ease of operation.

The i8724 contains the IM 7220 bubble memory controller for operation in DMA, interrupt, and polled modes. The DMA feature, not previously available from Intel in Multibus-compatible products, provides flexibility in microprocessor-based system designs. The IM 7220 controller offers built-in power-fail protection and error correction.

Up to four IM 7110 one-megabit bubble memory devices can be included on the board. Thus, capacity can be 128K, 256K, or 512K bytes. Support chips provided on the board include a formatter/sense amp, three packages for coil driving, and a current pulse generator.

Designed in the standard 12-inch by 6.75-inch i87c card format, the board has a 0.62-inch depth, requiring two normally spaced card slots for adequate mechanical clearance.

Bipolar PROMs feature access times down to 35 ns

Advanced Micro Devices has introduced a new 2048 × 4-bit bipolar PROM family which includes the fast Am27S184/Am27S185, faster Am27S185A, low-power Am27LS185, and power-switched Am27PS185.

The open-collector Am27S184 and three-state Am27S185 have a maximum access time of 50 ns and draw 150 mA. AMD’s proprietary iMOX II technology allows these PROMs to halve the power and double the speed and memory density of 1K × 4 PROMs, says the company, using the same 18-pin, 300-mil-center package as the less powerful device.

Faster access time is available with the Am27S185A, which guarantees a maximum access time of 35 ns. Lower power can be had with the Am27LS185, which draws 120 mA and accesses in 60 ns.

For intermediate speed and power requirements, the family includes the Am27PS185. Power-switched via the chip select line, this PROM recovers to full power (150 mA) and full addressing capabilities in 10 ns. It offers a maximum 50 ns access time at full power and a worst case access time of 60 ns from the power-down mode. In its power-down mode, the Am27PS185 draws 75 mA.

All members of this PROM family require a single +5 V supply and come in an 18-pin, 300-mil dual in-line package. Prices start at $23.35 in 100-unit lots.

Board transfer rates vary with board capacity. The 128K-byte version operates at a maximum transfer rate of 12.5K bytes per second. In the two- or four-device boards, the bubble memories can be accessed in parallel to achieve maximum transfer rates of 25K bytes per second for the 256K version and 50K bytes per second for the 512K capacity.

The i8724 has low power requirements—3.0 A at +5 V and 1.4 A at +12 V maximum. It is supported by drivers in Intel’s iRMX/80 and iRMX/86 real-time multitasking operating systems.

The i8724 is $7050 (512K-byte version) in 100-unit quantities.

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Delivering up to 25 watts of regulated DC power, Ault Incorporated’s new “switcher” power supplies are available in two versions for microprocessor-based systems. One offers a single output (+5 V at 5 A), the other a double output (+5 V at 2.5 A and ±12 volts at 0.2 A). A single-output unit giving 48 V at 0.5 A is also available for telephone applications. Weighing 11 ounces, the supplies plug into wall outlets and are designed to meet all requirements of UL standards 1012 and 1310.

An optional filter can be added to meet the forthcoming EMI (FCC regulation Part 15, Vol. II) requirements. The units operate on 105/129V 50/60-Hz AC, with an operating temperature range of 32 to 125°F (0 to 59°C). They are available with output terminals or cables.

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