PRODUCTS NEWSLETTER

NEC GRAPHICS CHIP USES FIRMWARE FOR COLOR FILL-IN

Work stations and high-end personal computers are the targets of a NEC Corp. advanced-graphics controller chip that uses firmware instead of software for graphic-pattern generation, data transfer, and color fill-in functions. A preprocessor on board the μPD72120 works in parallel with the chip's graphic-pattern-generation processor to achieve high-speed operation. NEC engineers claim the μPD72120 is among the first graphics-controller chips to incorporate data transfer and color fill-in functions on chip. Its system interface is a data bus of either 8 or 16 bits plus a 20-bit address bus, and the display-memory interface is a 16-bit data bus and a 24-bit address bus, for a total address space of 32 megabytes. Although designed to run with Intel Corp. processors, the μPD72120 has glue logic that permits the controller to be used with other processors. The Japanese company will start shipping the μPD72120 in April at a sample price of about $123. □

CONTROLLER CHIP SPEEDS PRINTERS' REACTION TIMES

A 16-bit microcontroller from Siemens AG improves the reaction time of high-resolution matrix printers and printer terminals by at least an order of magnitude while simultaneously processing up to eight tasks, ranging from paper transport, forward and backward printing, and line spacing to keyboard interrogation. The SAB 80199 boasts an instruction cycle of 0.5 μs. Its multifunction unit eliminates the need for peripheral components such as an interrupt controller, a multiple counter, and the controller for serial data transfer. The 40-pin device integrates 40,000 transistor functions on a 45-mm² chip. Available now, the 80199 sells for about $30 each in 500-unit lots. The price drops to $20 in 10,000-unit lots. □

EMULATOR TURNS EPSON PRINTERS INTO IBM EQUIVALENTS

A vatar Technologies Inc.'s $695 plug-in emulation module transforms Epson FX, RX, EX, and LQ printers into the equivalents of IBM Corp. 3270 printers to reap significant savings in equipment costs. The 4-by-4.75-in. Ep-87 Coax Adapter converts IBM control and character codes into ASCII. It attaches to IBM 3270 mainframes via an IBM 3274 or 3276 cluster control unit and is compatible with IBM's Systems Network Architecture and BSC communications protocols. According to the Hopkinton, Mass., company, the Ep-87 incorporates many of the features of Avatar's larger PA1500 protocol converter for IBM 3270 emulation. But programmers can still take full advantage of Epson printer functions such as dot-addressable graphics, alternate character sets, and bar code generation. Using an Epson printer with an Ep-87 adapter board that will become available in February can result in savings of up to 75% over IBM printers, Avatar says. □

DIODES COMBINE FAST RECOVERY TIMES WITH HIGH BLOCKING POWER

Two new fast-recovery diodes from International Rectifier Corp. combine the quick response of Schottky diodes with the high voltage-blocking capability of p-n diodes, the El Segundo, Calif., company says. The 30-ns 11DF and the 35-ns 31DF can handle reverse voltages from 100 to 200 V, with forward currents of 1 and 3 A. Typically, p-n diodes rated for comparable blocking voltage and current have recovery times on the order of 100 to 200 ns. Schottky diodes provide recovery times comparable to the 11DF's and 31DF's but top out at a blocking voltage of 100 V. The 11DF and 31DF are intended for applications such as switching power supplies and inverters. Both devices are in axial-lead packages. The price, in 100-piece quantities, is 60¢ for the 11DF and 68¢ for the 31DF. □