# PRODUCTS NEWSLETTER

## NEC CHIP SET BOOSTS TV RESOLUTION UP TO 40%

Look for television picture quality to take a quantum leap forward with a chip set from NEC Corp. that uses digital-signal-storage and processing techniques to implement the Improved-Definition TV standard. IDTV delivers a 30% to 40% improvement in resolution—the best picture possible from current NTSC signals. It features 60 noninterlaced frames with twice as many scanning lines as the 60 interlaced fields used in conventional NTSC TV, as well as advanced techniques for separating chroma and luminance signals. A key chip in the Tokyo company's set is the μPD42270C field buffer. There are seven of these in the kit, each providing almost 1 Mbit of storage—263 lines by 910 pixels by 4-bits. Signal processing is done by six 1-μm CMOS chips. Also included are 11 μPD41101C line buffers, two analog-to-digital converters, and three digital-to-analog converters. Samples will be available in December for $347, with full production set for early 1988. □

## CONTROL DATA CRAMS 1.236 GIGABYTES ON ITS LATEST 8-IN. DRIVE

Control Data Corp. has upped the ante in the 8-in. disk-capacity competition to 1.236 gigabytes with its Sabre 1230—a 65% increase over its industry-leading 750-Mbyte Sabre IV series. The Sabre 1230 integrates thin-film media and thin-film heads to achieve the greater capacity, and it can be equipped for any of three interfaces: SMD (Storage Module Drive), IPI-2 (Intelligent Peripheral Interface), or SCSI (Small Computer System Interface). It features a data-transfer rate of 3.02 Mbytes/s and average seek times of 16 ms. Customer evaluation units with SMD or IPI-2 interfaces will be available in the fourth quarter, while SCSI evaluation units will be available in the first quarter of next year. Production deliveries will begin in the second quarter. The Sabre 1230 costs $6,470 in volume purchases. □

## KLA WAFER-INSPECTION SYSTEM WORKS FASTER, DETECTS SMALLER DEFECTS

Chip makers can hunt down defects as small as 0.6 μm up to 15 times faster with KLA Instruments Corp.'s Model 2028 inspection system than with the company's 2020—itself a pioneer in automating wafer-defect inspection with image-processing technology. Quick inspection turnaround and high precision mean fab processes can be tweaked earlier to eliminate many defects and increase yield—savings that mean the machine can pay for itself in six months to a year, says the Santa Clara, Calif., company. KLA achieves the performance boost chiefly by adding an operating mode especially tailored for repeating circuit patterns such as memory arrays. The 2028 inspects wafers at a rate of 6.5 min./cm² in its repeating mode, compared with 98 min/cm² for the single-mode 2020. Available in the second quarter of 1988, the 2028 will cost $875,000. □

## MATROX PC AT ACCELERATOR DOES SHADED POLYGONS, 90,000 3-D VECTORS/S

Users of IBM Corp. PC ATs and compatibles based on Intel Corp.'s 80386 microprocessor can get 50% better 3-d solids-modeling performance for less than $7,000 with Matrox Electronic Systems Ltd.'s single-board graphics accelerator. The SM-1281 can perform 90,000 3-d vectors/s and 20,000 shaded 3-d polygons/s, while competing products offer 60,000 3-d vectors/s and no shaded-polygon feature. The SM-1281 implements 3-d rendering with a pipelined architecture and five dedicated microprocessors. Among them is a special VLSI "tile" processor that permits high-speed rendering. The SM1281 must be teamed with the Dorval, Quebec, company's PG-1281 color-display processor board. Available in November, the SM-1281 costs $6,995; the PG-1281, introduced in July, sells for $3,495. □