

TECH REVIEW

Prototype text to speech system has unlimited English vocabulary

Model TTS-X is a complete standalone unlimited speech peripheral device. Developed by Telesensory Speech Systems, 3408 Hillview Ave, PO Box 10099, Palo Alto, CA 94304, this system consists of 2 wirewrap and 10 printed circuit boards mounted in a card cage. Components mounted on these boards include one 8085 and two LSI-11 microcomputers, RAM, and programmable digital signal processor chips. The card cage, power supply, speaker, and tape cartridge are packaged in an enclosure with external user controls mounted on the front panel; RS-232-C connectors used for I/O are on the back panel.

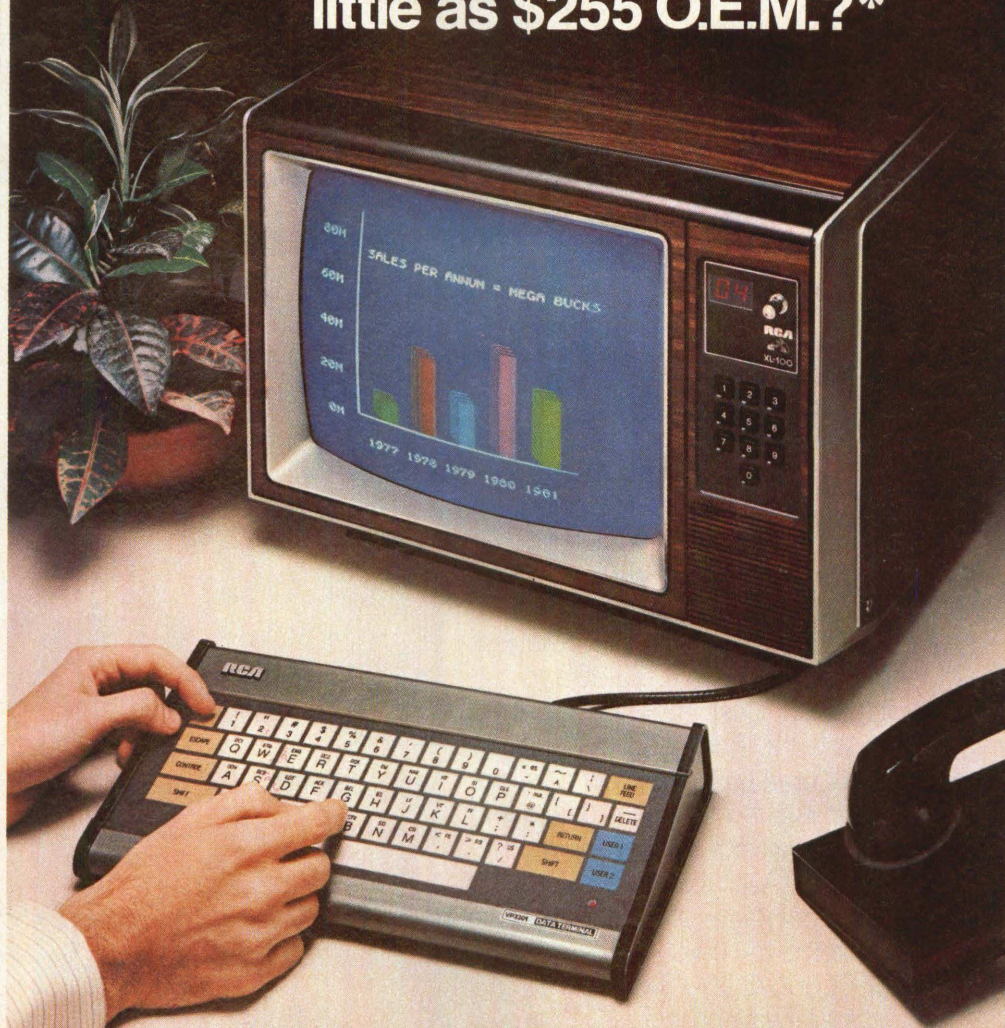
The system receives full words as strings of characters in ASCII format. These words are spoken in either lexical, prosodic, or spell mode. In lexical mode each word is pronounced with full normal stress (based on the lexical stress rules for words) without regard to the surrounding words. Prosodic mode more closely resembles human speech in conversation; an entire phrase is analyzed before speech begins, and each word is stressed with relationship to the surrounding words. Spell mode names each character in the input string. Mode of operation is selected by ASCII input control characters.

Incorporating a dictionary of 1500 exceptional words, the device speaks an unlimited English vocabulary. The dictionary contains words that are most common in the English language and those that do not follow the typical phonetic rules of the language. Along with this dictionary is a set of algorithms that convert other words to phonemes. A phonetic synthesis subsystem converts the resulting phoneme, stress, and duration data to speech parameters which drive the proprietary PDSP synthesizer to create synthetic speech.

If operated in lexical or prosodic mode, the system can speak indefinitely at a maximum rate of 200 words/min. Speech rate is controlled from a front panel switch. Text input is an ASCII format at 1200 baud based on RS-232-C specifications. The external user's control consists of variable speech rates between 50 and 200 words/min, and volume control. Power requirements are 110 V, 60 Hz, 4 to 5 A.

Circle 351 on Inquiry Card

What can you honestly expect from an interactive data terminal that costs as little as \$255 O.E.M.*



Well, to begin with, color graphics.

RCA's VP-3301 has unique color-locking circuitry that gives you sharp, jitter-free color graphics and rainbow-free characters.

Plus much more: Microprocessor control. Resident and programmable character set. Reverse video. State-of-the-art LSI video control. 20 and 40 character formats. RS232C and 20 mA current loop. Six baud rates. Eight data formats. ASCII encoding. Light-touch flexible-membrane key switches for reliability and long life. CMOS circuitry and a spill-proof, dust-proof keyboard for hostile environments.

The VP-3301 can be used with a 525-line color or monochrome monitor or a standard TV set through an RF modulator.** It serves a wide variety of industrial, educational, business and individual applications including communication with time sharing and data base networks.

All this—for as little as \$255. And it's made by RCA. So get the whole story about the surprising VP-3301 today. Write RCA MicroComputer Marketing, New Holland Avenue, Lancaster, PA 17604. Or call toll-free: 800-233-0094.

**Model VP-3303 with built-in RF modulator—\$270. O.E.M.

*Quantity price. Monitor and modem not included.

RCA

CIRCLE 34 ON INQUIRY CARD