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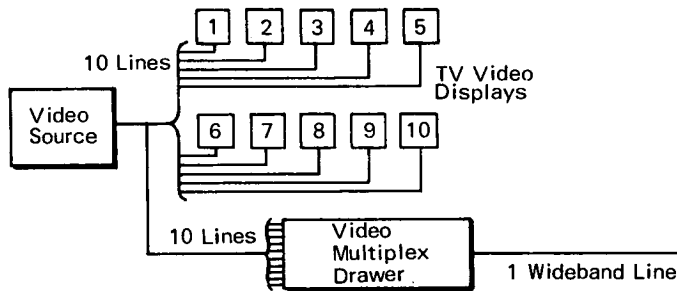
Kennedy Space Center



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Television Multiplexing System

A novel multiplexing system uses a single, standard, wideband line to transmit 10 or more real-time TV video data displays over hard wire to recorders at a distance of more than 22.5 km from the source. The



system utilizes digital logic and integrated circuits to ensure high reliability and low maintenance.

The system (see fig.) consists of two drawers of integrated circuit digital logic units and five video disc recorders, each capable of storing two video pictures. The digital logic detects picture-update control pulses from the video generating source and adds a digital sync pulse and a digital code to the TV video sync pulse. The last video picture updated remains "on line" to provide a constant video sync pulse for the demultiplexing and video recording equipment at the receiving end of the line.

The use of only one wideband line for transmission of the 10 "videos" was made possible by a unique method of self-synchronization, combining digital logic field and TV concepts. High-speed video switching boards are used in conjunction with the digital logic. The video disc recorders at the receiving end of the transmission line store the video data after they are demultiplexed. Video distribution circuitry then routes the data to standard 525 TV monitors at various locations.

This system can be adapted for various video samp-

ling applications, including security and surveillance monitoring. The system lends itself particularly to the long-distance transmission of multiple TV data displays where the cost of many lines is prohibitive.

Note:

Requests for further information may be directed to:

Technology Utilization Officer
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Reference: B71-10391

Patent status:

Inquiries about obtaining rights for the commercial use of this invention may be made to:

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