

SERIES 7000 CIRCUIT MEMO #14

SUBJECT: A LOAD-SHARING MATRIX SWITCH

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ABSTRACT: A matrix switch winding pattern has been developed which allows the power from several pulse generators to be combined into a single high-powered pulse. This pulse may be directed into one of a group of outputs. The theory of operation, including the logical basis for changes in number of outputs and the logic of the associated decoding network, is described.

The device is ideal for the X-Y drivers of a transistor-driven core memory, because one switch allows a group of fast, low-power transistors to deliver a large drive pulse to one drive line on one side of a core memory. A 16-output load-sharing matrix switch has been used in the X-Y drive system for the medium-speed memory and is planned for use in the high-speed memory.

Some additional applications of the idea of load-sharing are given.

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