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Margolin

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- [54] VIDEO MEMORY WITH FLASH FILL
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[57] ABSTRACT

A single-chip semiconductor memory device optimized for high performance flat-shaded polygon video systems consists of a RAM with flash fill circuitry whereby the Start and End addresses are specified for a given row; the data within this range are read, modified, and written back to the memory in parallel thereby requiring a maximum of three memory cycles to fill a line segment independent of the length of the line. The data are modified according to a function between a color register and the data already present in the memory array, the functions being: AND, OR, EXCLUSIVE OR, or REPLACE.

16 Claims, 20 Drawing Sheets

