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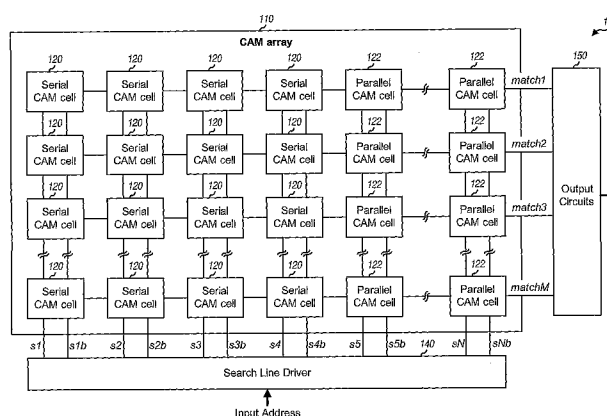
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(54) Title: CONTENT ADDRESSABLE MEMORY WITH MIXED SERIAL AND PARALLEL SEARCH



(57) Abstract: A mixed serial-parallel content addressable memory (CAM) includes serial CAM cells and parallel CAM cells that are arranged in multiple (N) columns and multiple (M) rows. Each row includes at least one serial CAM cell and at least two parallel CAM cells. The M rows are searched in parallel. For each row, the serial CAM cells are searched sequentially, and the parallel CAM cells are selectively searched in parallel. The CAM further includes a driver that generates search lines for the N columns of CAM cells, one search line per column. The driver sets the search lines to an N-bit value to search for in the CAM. Prior to each search operation, the driver presets at least one search line for at least one column of serial CAM cells to precharge a match line for each row.

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