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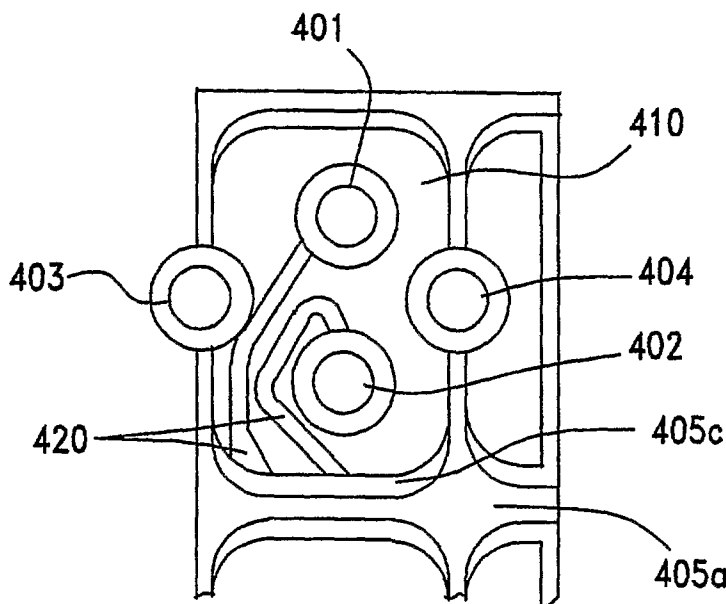
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(54) Title: PREFERENTIAL GROUND AND VIA EXIT STRUCTURES FOR PRINTED CIRCUIT BOARDS



(57) Abstract: A circuit board design is disclosed that is useful in high speed differential signal applications uses either a via arrangement or a circuit trace exit structure. In the via arrangement, sets of differential signal pair vias and an associated ground are arranged adjacent to each other in a repeating pattern. The differential signal vias of each pair are spaced closer to their associated ground via than the spacing between the adjacent differential signal pair associated ground so that differential signal vias exhibit a preference for electrically coupling to their associated ground vias. The circuit trace exit structure involves the exit portions of the circuit traces of the differential signal vias to follow a path where the traces then meet with and join to the transmission line portions of the conductive traces.

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