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(54) **METHOD OF AND PROGRAM PRODUCT
FOR PERFORMING GATE-LEVEL
DIAGNOSIS OF FAILING VECTORS**

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(57) **ABSTRACT**

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A method of fault diagnosis of integrated circuits having failing test vectors with observed fault effects using fault candidate fault-effects obtained by simulation of a set of test vectors, comprises determining a fault candidate diagnostic measure for each fault candidate, the fault candidate diagnostic measure having a fault candidate match metric, an observed fault effect mismatch metric and a fault candidate excitation metric, ranking fault candidates in decreasing diagnostic measure order; and identifying fault candidate(s) having the highest diagnostic measure as the most likely cause of observed fault effects.

