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(54) Title: TESTING OF ELECTRONIC CIRCUITS USING AN ACTIVE PROBE INTEGRATED CIRCUIT

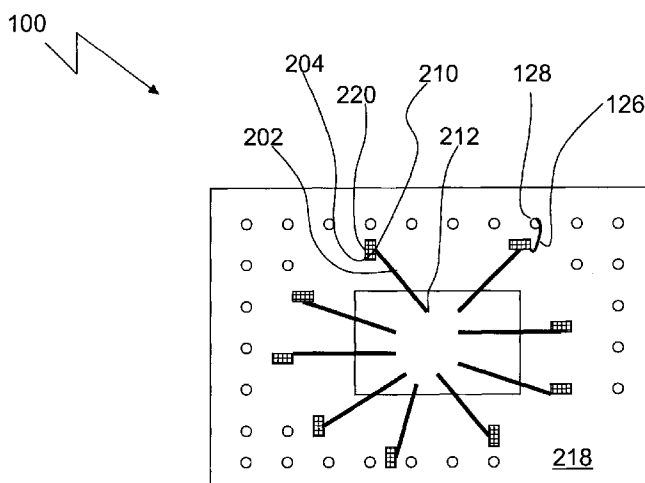


Figure 3a

(57) Abstract: A method and apparatus are provided for transmission/reception of signals between automatic test equipment (ATE) and a device under test (DUT). A probe card has a plurality of associated proximate active probe integrated circuits (APIC) connected to a plurality of probes. Each APIC interfaces with one or more test interface points on the DUT through probes. Each APIC receives and processes signals communicated between the ATE and the DUT. Low information content signals transmitted from the ATE are processed into high information content signals for transmission to the probe immediately adjacent the APIC, and high information content or time critical signals received by the APIC from the DUT are transmitted as low information content signals to the ATE. Because the APIC is immediately adjacent the probe there is minimum loss or distortion of the information in the signal from the DUT.

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