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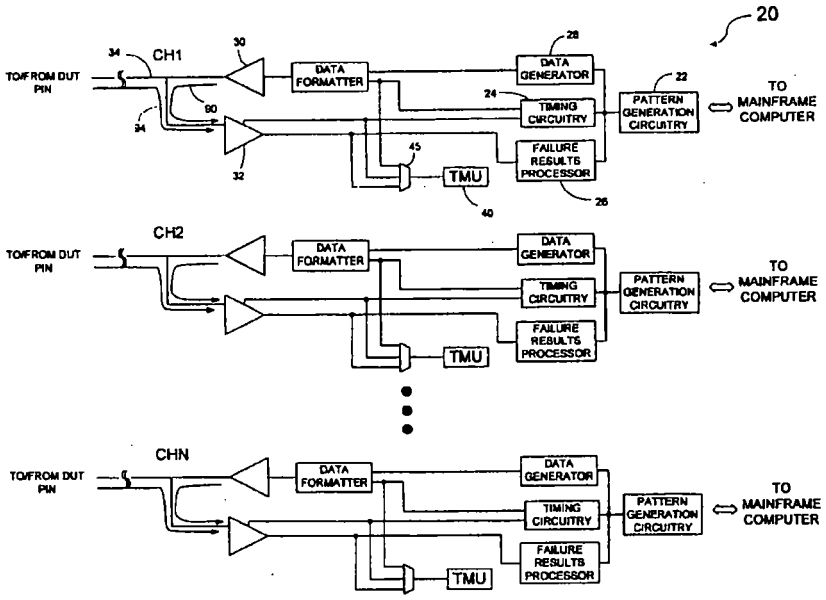
(54) Title: ATE TIMING MEASUREMENT UNIT AND METHOD



(57) Abstract: Automatic test equipment is disclosed for testing a semiconductor device and including a computer workstation and pin electronics circuitry coupled between the semiconductor device and the computer. The pin electronics circuitry includes a plurality of channels, each channel having timing circuitry operative in response to desired programmed timing information, driver/comparator circuitry coupled to the timing circuitry for driving test waveforms at a period T, and sampling data from the waveforms at a beat period T +/- Δ, and a timing measurement unit. The timing measurement unit is coupled to the driver/comparator circuitry for measuring the relative timings of the sampled data. The plurality of channels cooperate to produce substantially real-time timing measurement data in parallel.

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