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(54) **Title:** AN INTEGRATED CIRCUIT INCLUDING A PROGRAMMABLE LOGIC ANALYZER WITH ENHANCED ANALYZING AND DEBUGGING CAPABILITIES AND A METHOD THEREFOR

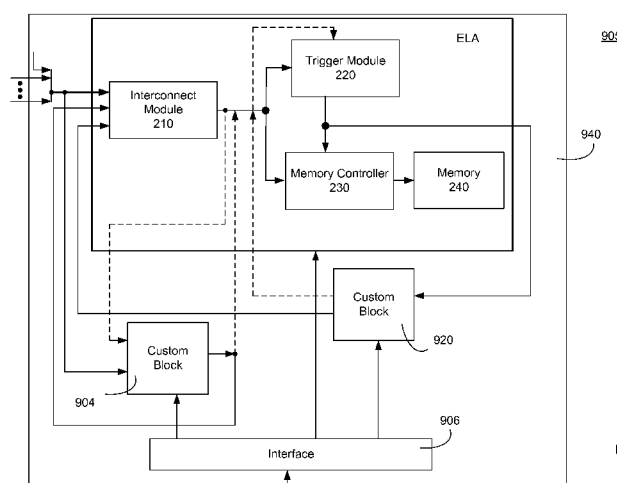


Fig. 11

(57) **Abstract:** An integrated circuit including a logic analyzer with enhanced analyzing and debugging capabilities and a method therefor. In one embodiment of the present invention, an embedded logic analyzer (ELA) receives a plurality of signals from a plurality of buses within an integrated circuit (IC). The ELA includes an interconnect module to select a trigger signal and/or a sampled signal from the plurality of received signals. A trigger module sets at least one trigger condition and detects if the trigger signal satisfies the at least one trigger condition. When the trigger condition is satisfied, an output module performs at least one task based upon the satisfied at least one trigger condition. If a sampling process is initiated by the output module, the plurality of sampled signals is sampled and may be stored in a memory. The capability of the output module to perform multiple user-defined tasks enhances the debugging capability of the ELA and makes it more versatile.