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(54) Title: A STRUCTURE AND IMPLEMENTATION METHOD FOR IMPLEMENTING AN EMBEDDED SERIAL DATA TEST LOOPBACK, RESIDING DIRECTLY UNDER THE DEVICE UNDER TEST WITHIN A PRINTED CIRCUIT BOARD

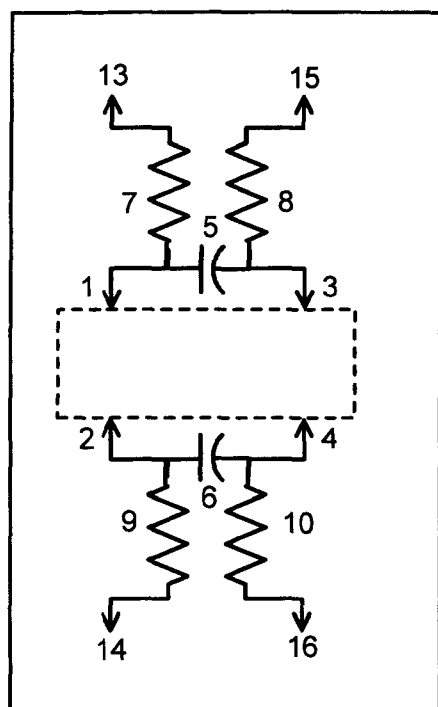


FIG. 1

(57) Abstract: A method and a structure with multiple implementations is provided that depends on the specific need, for placing (embedding) a serial loopback circuit of known design in a printed circuit board directly beneath the device under test. Micro-vias and traces connect components including transmitter components (TX) and receiver components (RX) that are formed into a loopback circuit for connection to a device under test (DUT). The connection is accomplished by a coupling capacitor with a shortest possible electrical length approximating a straight line between said components and said DUT and said distance is a length of said short straight line times a square root of 2 so that said receiver components are beneath the DUT.



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