

METHOD AND APPARATUS FOR GALVANICALLY ISOLATING
TWO INTEGRATED CIRCUITS FROM EACH OTHER

ABSTRACT

An isolation circuit (10) and method for providing dc isolation between two integrated circuit devices (11) and (12) that may be referenced to different ground potentials is presented. The isolation circuit (10) includes, in each circuit, an output buffer (20, 20') connected to deliver a signal to an input/output pin (16, 17) of the circuit (11, 12) with which the output buffer is associated. A capacitance (30), which may be a single capacitor or a combination of capacitors, is connected to the pins (16, 17) of each of the circuits (11, 12), and in each circuit (11, 12), an input buffer (22, 22') is connected to receive a signal delivered onto the I/O pin (16, 17). The input buffer (22, 22') includes a circuit for resisting a charge leakage from the capacitor, which, preferably is a bus holder circuit (36), or the like. In another embodiment, a transformer (85) is used to provide dc isolation between the two integrated circuits (62, 64).

Figure 1 ~~and Figure 2~~