

A METHOD FOR INCREASING POWER SUPPLY BYPASSING WHILE
DECREASING CHIP LAYER DENSITY VARIATIONS

Abstract

A method for increasing the layer density uniformity across a conductive layer (20), which comprises a plurality of functional blocks (12a, 12b, 12c, 12d, 12e, 12f), of an integrated circuit (2) is presented. Increased uniformity is achieved by tiling a plurality of capacitors (32) in between the functional blocks (12a, 12b, 12c, 12d, 12e, 12f). The configuration of the capacitor array (30) and number of the capacitor cells (32) in the array (30) is arranged so as to provide approximate uniformity in the conductor-to-non-conductor density across the entire conductive layer (20). The capacitor array (30) may be used to reduce power supply switching noise by coupling one or more of the capacitor cells making up the capacitor array (30) between a high power rail (Vdd) and a low power rail (Vdd).

Figure 2