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SHIELDED INDUCTOR ABSTRACT OF THE DISCLOSURE

A novel complimentary shielded inductor on a semiconductor is
5 disclosed. A region of electrically floating high resistive material is
deposited between the inductor and the semiconductor substrate. The high
resistive shield is patterned with a number of gaps, such that a current
induced in the shield by the inductor does not have a closed loop path. The
high resistive floating shield compliments a grounded low resistive shield
10 to achieve higher performance inductors. In this fashion, noise in the
substrate is reduced. The novel complimentary shield does not
significantly degrade the figures of merit of the inductor, such as, quality
factor and resonance frequency. In one embodiment, the grounded shield
is made of patterned N-well (or P-well) structures. In still another
15 embodiment, the low resistive electrically grounded shield is made of
patterned Silicide, which may be formed on portions of the substrate itself.

FIGURE 7B