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**CORRECTED PUBLICATION**

(54) **LOW LATENCY, BROADBAND POWER-DOMAIN OFFSET-CORRECTION SIGNAL LEVEL CIRCUIT IMPLEMENTATION**

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(57) **ABSTRACT**

An interface circuit may convert an input electrical signal at an input node in a first power domain having a first ground or reference voltage into an output electrical signal at an output node in a second power domain having a second ground or reference voltage. Notably, a level-shifting circuit in the interface circuit may selectively electrically couple to the input node and the output node. Then, when there is electrical coupling, the level-shifting circuit may perform level shifting between the first power domain and the second power domain. The level shifting may involve: passing, using a first filter, frequencies in the input electrical signal below a first corner frequency; passing, using a second filter in parallel with the first filter, frequencies in the input electrical signal above a second corner frequency; and combining outputs of the first filter and the second filter as the output electrical signal.