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Jennings et al.(10) **Pub. No.: US 2022/0393685 A1**(43) **Pub. Date: Dec. 8, 2022**(54) **METHOD AND APPARATUS FOR
PROVIDING MULTIPLE POWER DOMAINS
TO A PROGRAMMABLE SEMICONDUCTOR
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(57)

ABSTRACT

A semiconductor device, able to be selectively configured to perform one or more user defined logic functions, includes a semiconductor die and a selectable power regulator. The semiconductor die, in one aspect, includes a first region and a second region. The first region is operable to perform a first set of logic functions based on a first power domain having a first voltage. The second region is configured to perform a second set of logic functions based on a second power domain having a second voltage. The selectable power regulator, in one embodiment, provides the second voltage for facilitating the second power domain in the second region of the semiconductor die in response to at least one enabling input from the first region of the semiconductor die.

