

ABSTRACT OF THE DISCLOSURE

An integrated circuit for a physically unclonable function (PUF) includes a controller configured to generate a control signal with reference to an address table, the address table representing a first mapping relationship between a first PUF cell group and a second PUF cell group having a first predetermined mismatch distance in relation to a PUF cell characteristic, and representing a second mapping relationship between a third PUF cell group and a fourth PUF cell group having a second predetermined mismatch distance in relation to the PUF cell characteristic; and a PUF block configured to provide PUF cell data groups in accordance with the first and second mapping relationships to the controller, in response to the control signal. The controller may be configured to generate an authentication key by respectively comparing the PUF cell data groups with reference data groups.

FIG. 1