TECHNICAL DOCUMENTATION

Component name: `AUTH_98X276YC`
Family: Authenticator
Type of circuit: Datapath with Control Unit
Number of inputs: 5
Number of outputs: 2
Reset type: asynchronous, active high
Maximum clock frequency: 168 MHz

Behavioral description:
`AUTH_98X276YC` is an authentication digital circuit that is able to save a key inside, and to compare incoming data to that key for asserting a PASS_FAIL output signal.
At any rising edge of the NEW_KEY input signal, the device stores internally the value present on DATA_IN and considers it as the new key.
At any rising edge of NEW_DATA input signal, the device compares the value present on DATA_IN, compares it with the last stored key and, when done, asserts the output signal DONE for one clock cycle, and concurrently provides on the output signal PASS_FAIL the result of the comparison.
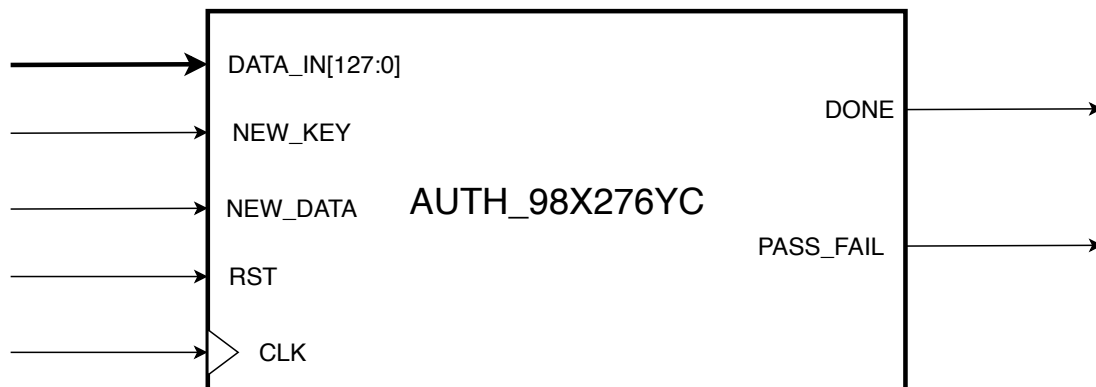

Figure 1 – AUTH_98X276YC top-level view