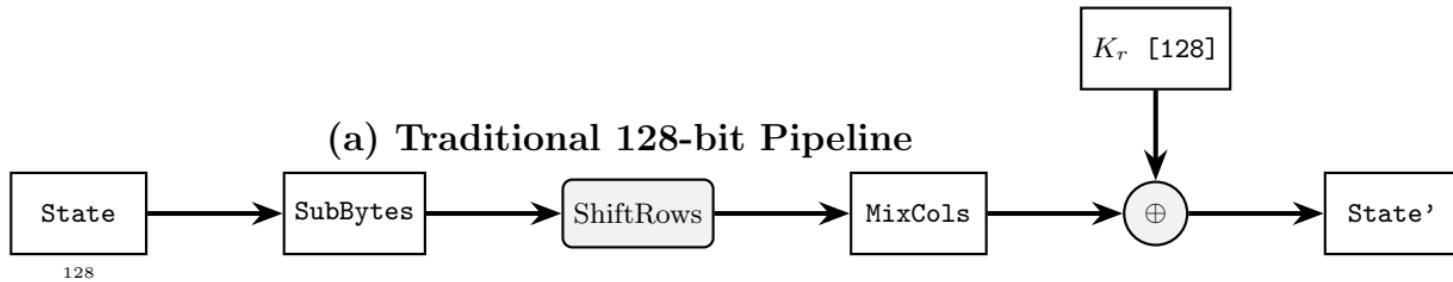
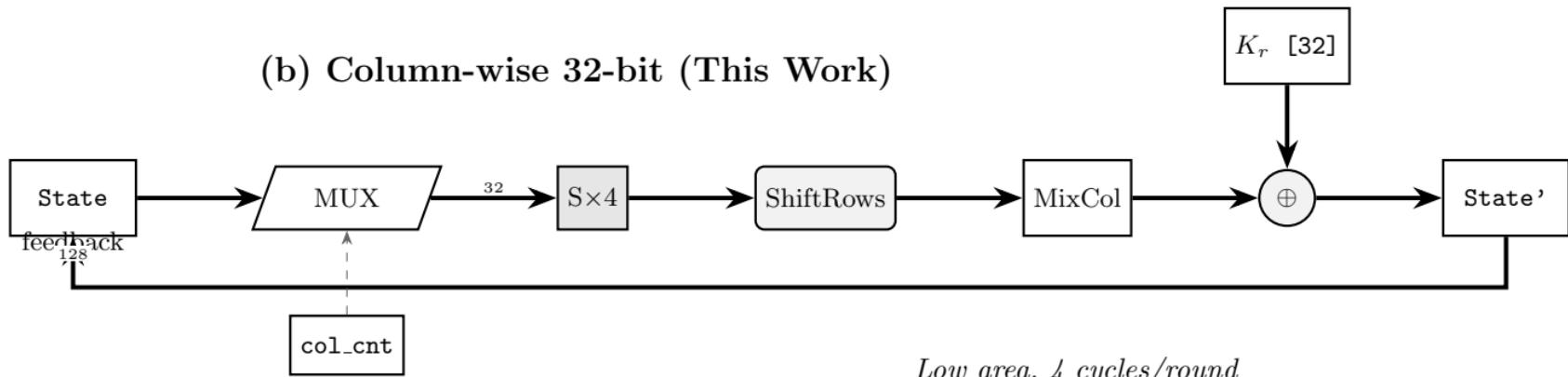


(a) Traditional 128-bit Pipeline



*High area, 1 cycle/round*

(b) Column-wise 32-bit (This Work)



*Low area, 4 cycles/round*