muxControl
(from controller)

Datapath

ph1, ph2

enData
(from controller)
reset

a[7:0]   8 bits

shiftClk1,2
shiftIn   s1   s2   s3

muxControl[1:0]
(from controller)
2 bits

enable/reset   enable/reset   enable/reset

8 bits

Mux x4

c3[7:0] (8 bits)
c2[7:0]
c1[7:0]
c0[7:0]

Mux x4

8 bits

coef[7:0]

muxControl[1:0]
(from controller)

dOut[7:0]

8 bits

18 bits

+

16 bits

18 bits

ph1, ph2

enable

clearAccum
(from controller)

18 bits

Ph1, ph2

reset
enable

y[17:0]

reset
enable
enData
(from controller)