DataPath Booth Multiplication

X- bus   Y-bus

17

TrP

X   Y

TrMcand   TrMplier
Mcand   Mplier   Trcount

P

count

func_sel

selP

17

Z-Bus

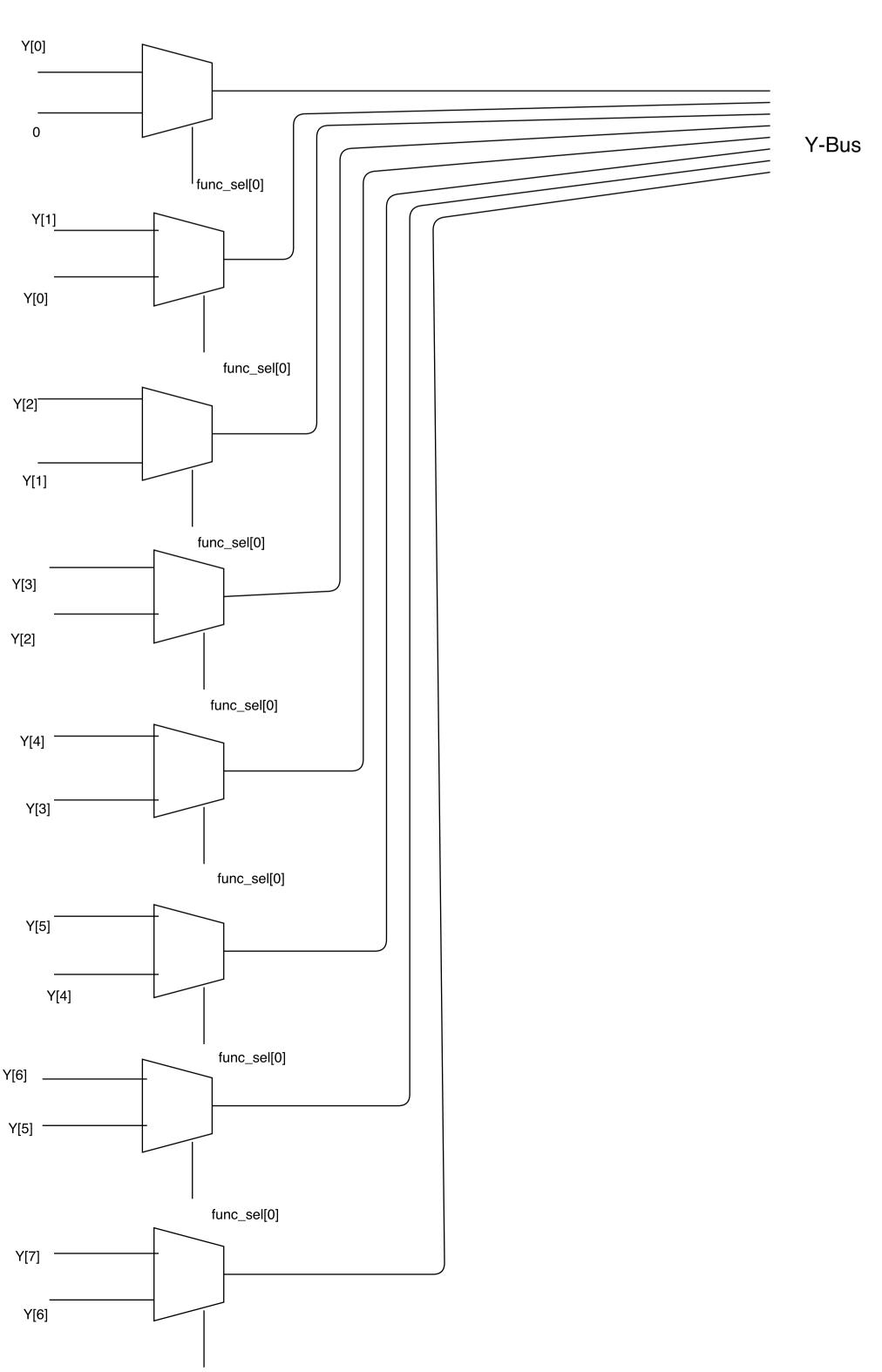8   8   5

input   input

selMcand   selMplier   selcount

Controller

MUX TO DECIDE WHETHER TO TAKE Y OR 2Y

Y[0]

0

Y-Bus

func_sel[0]

Y[1]

Y[0]

func_sel[0]

Y[2]

Y[1]

func_sel[0]

Y[3]

Y[2]

func_sel[0]

Y[4]

Y[3]

func_sel[0]

Y[5]

Y[4]

func_sel[0]

Y[6]

Y[5]

func_sel[0]

Y[7]

Y[6]

func_sel[0]