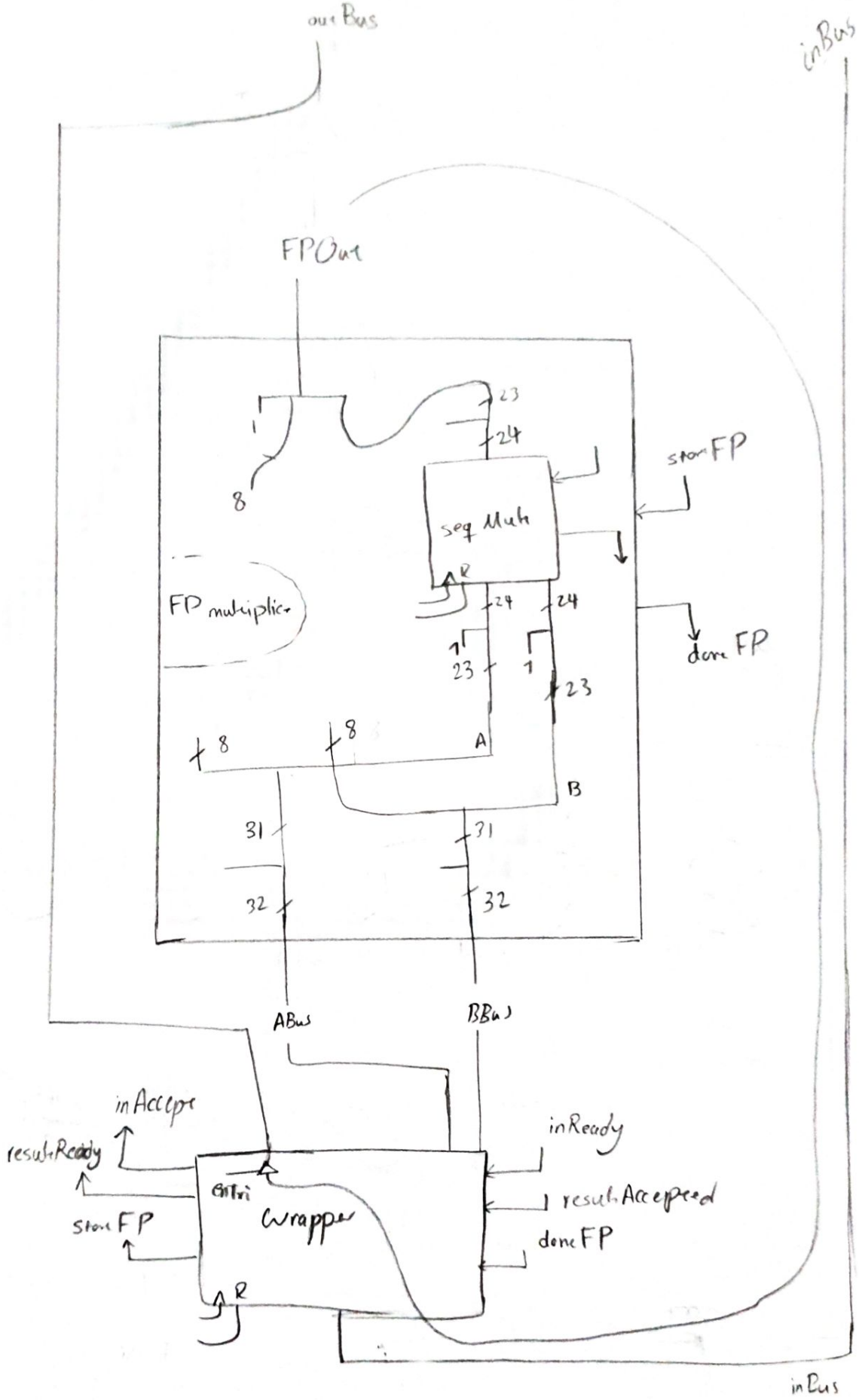
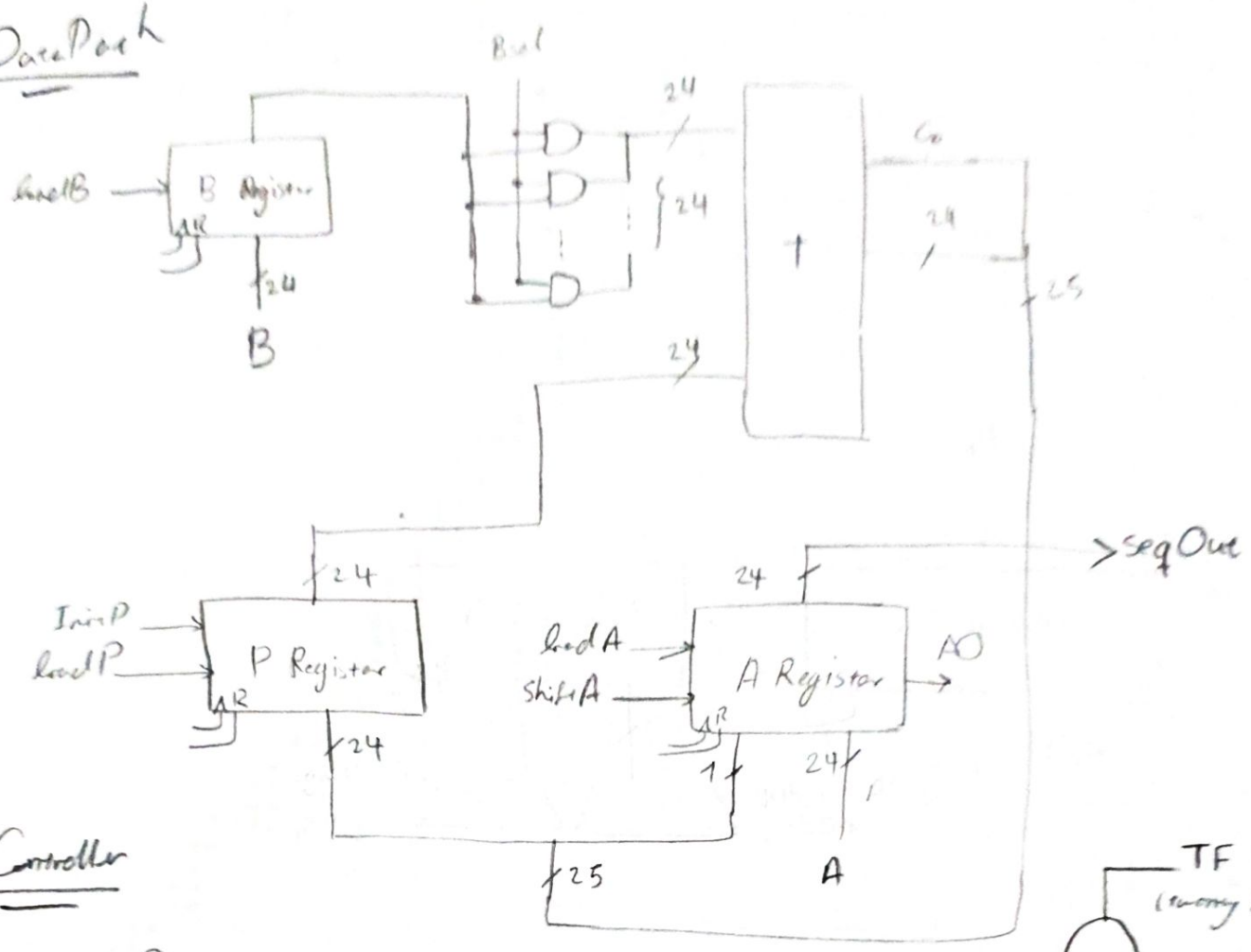
a) hierarchial block diagram

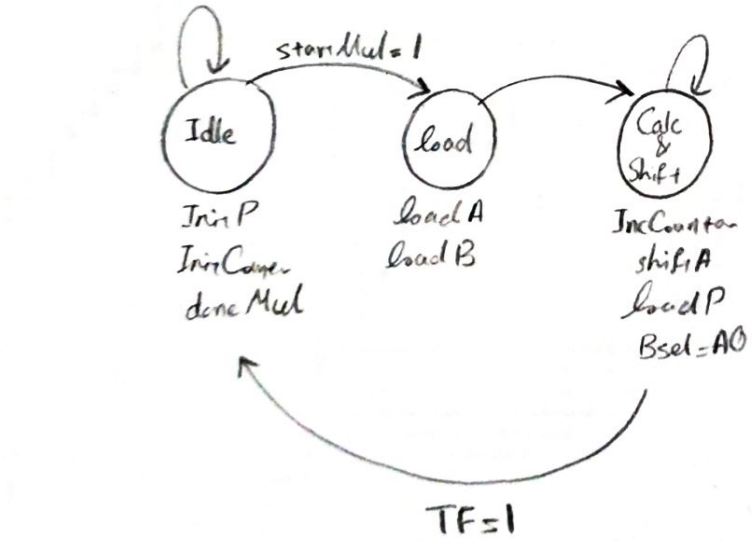


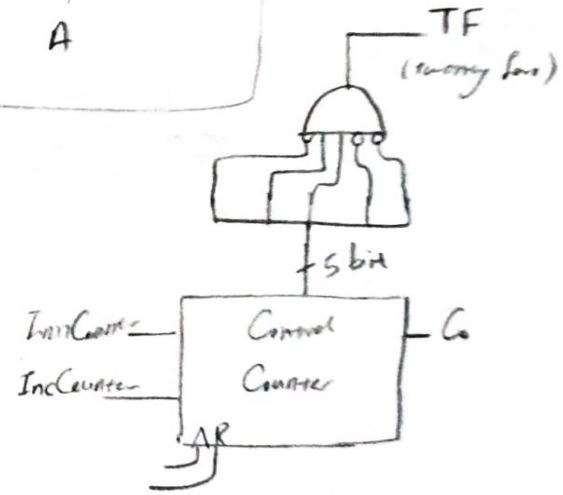
b) The Complete Design of the Sequential Multiplier

DataPath

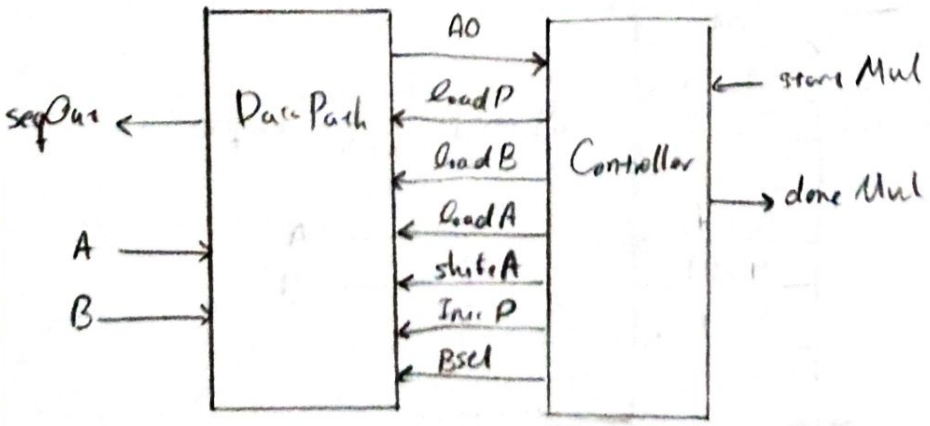


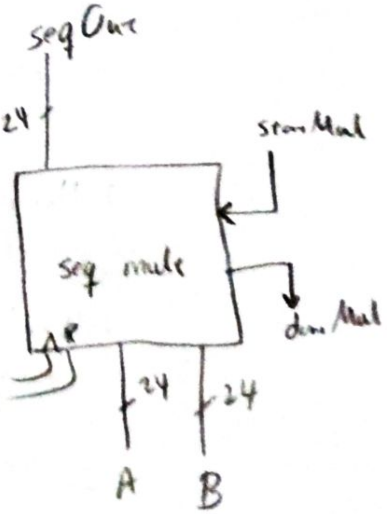
Controller





Final

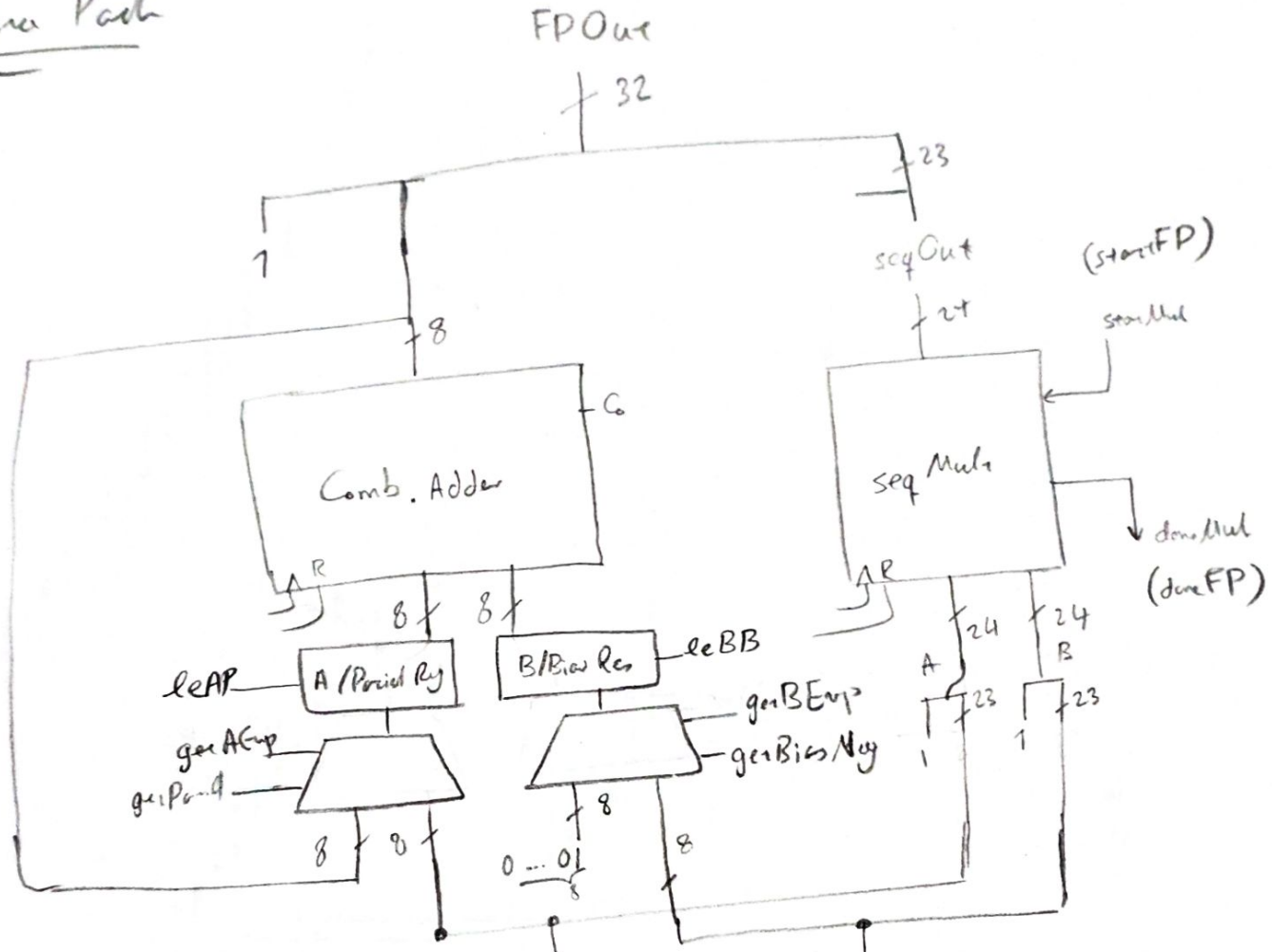




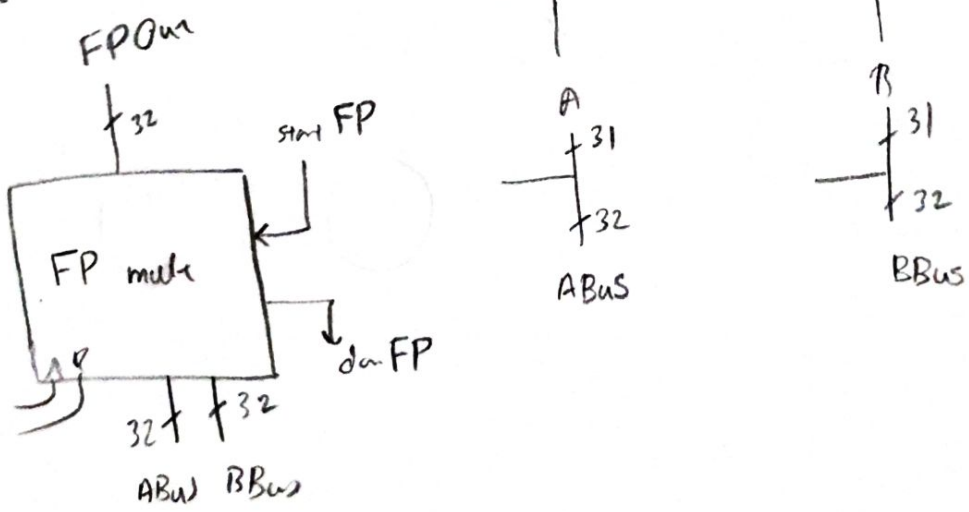
c) The DataPath of FP Multiplier Engine

The sequencial multiplier generates output after 24 clocks while this number for combinational adder is 4 as a result startFP issues startMul and doneMul issues doneFP.

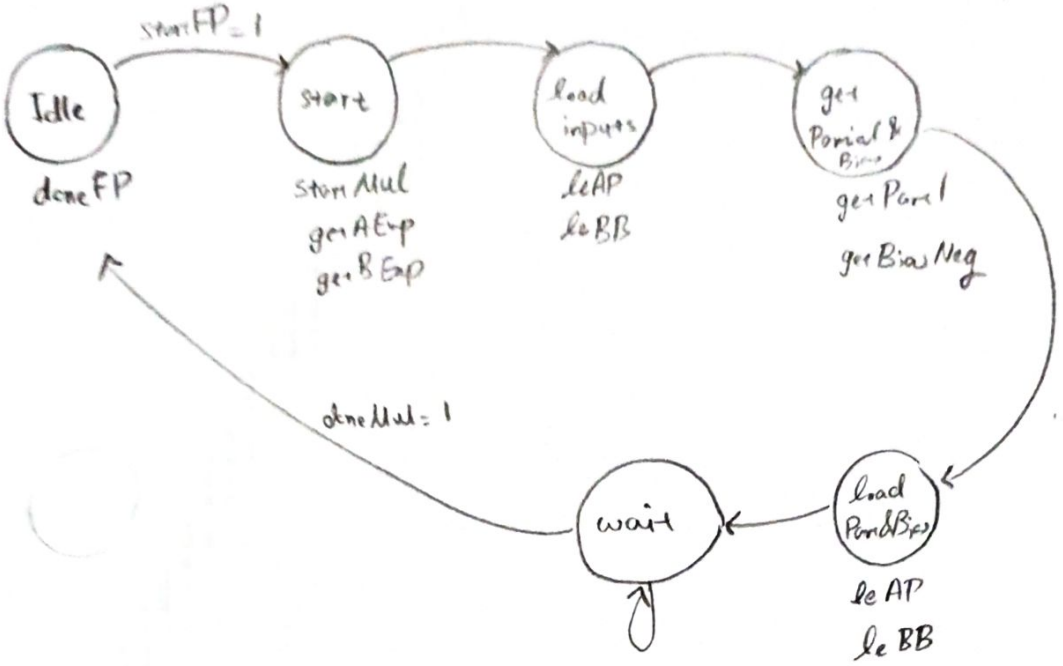
Data Path



Final

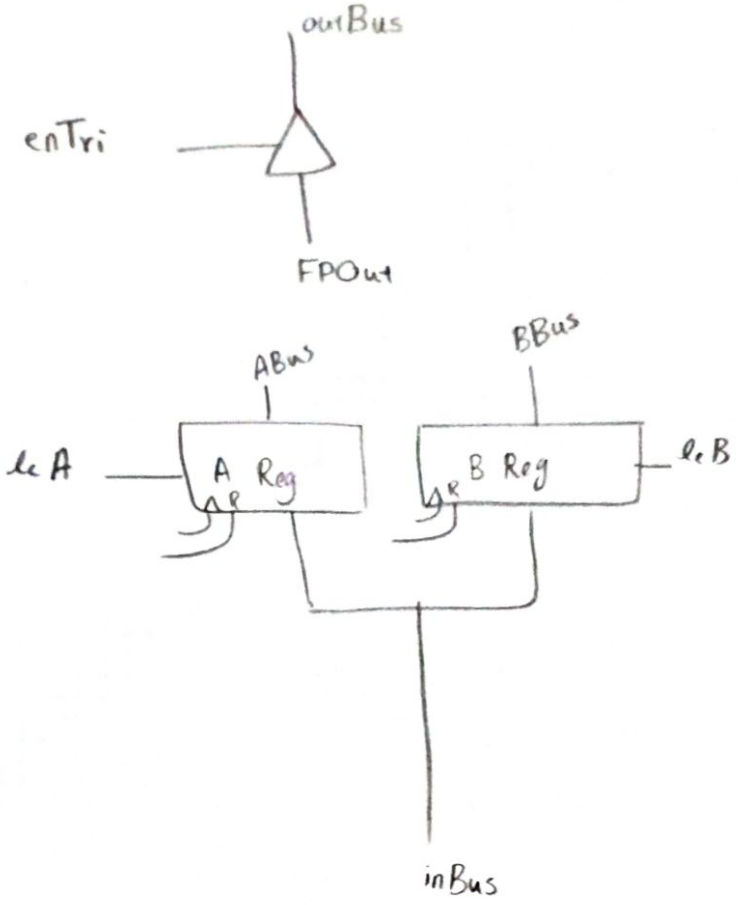


(-2) The Controller of FP multiplication:

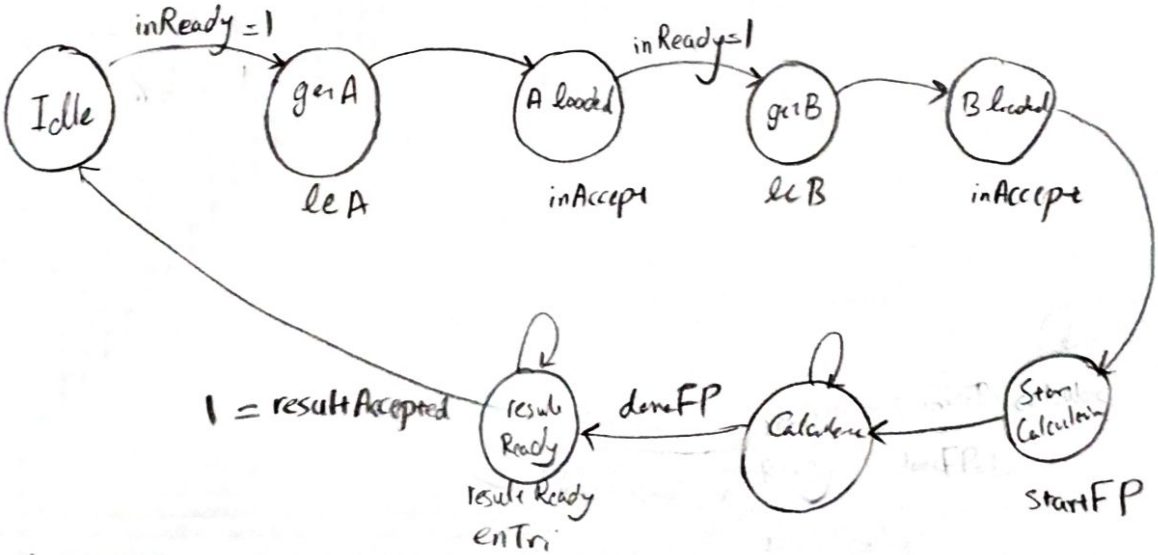


d) the wrappers:

DatenPath



Controller



Final