ALU design notes  
  
Please note that the red connections in this design symbolize four separate connections, and blue connections indicate separate connections.

I wanted to design my own shift register just for fun, so I did.

In the bit shifter only four tri-state buffers are present, but as the connections are

red this symbolizes 16 tri-state buffers. Also, an eeprom is used to interface with my circuit because otherwise its control signals would be counter-intuitive.

Also, although the decoders have inverted output, the design calls for non inverted output.

I could only find chips with inverted output.