

Relay-Based Computing

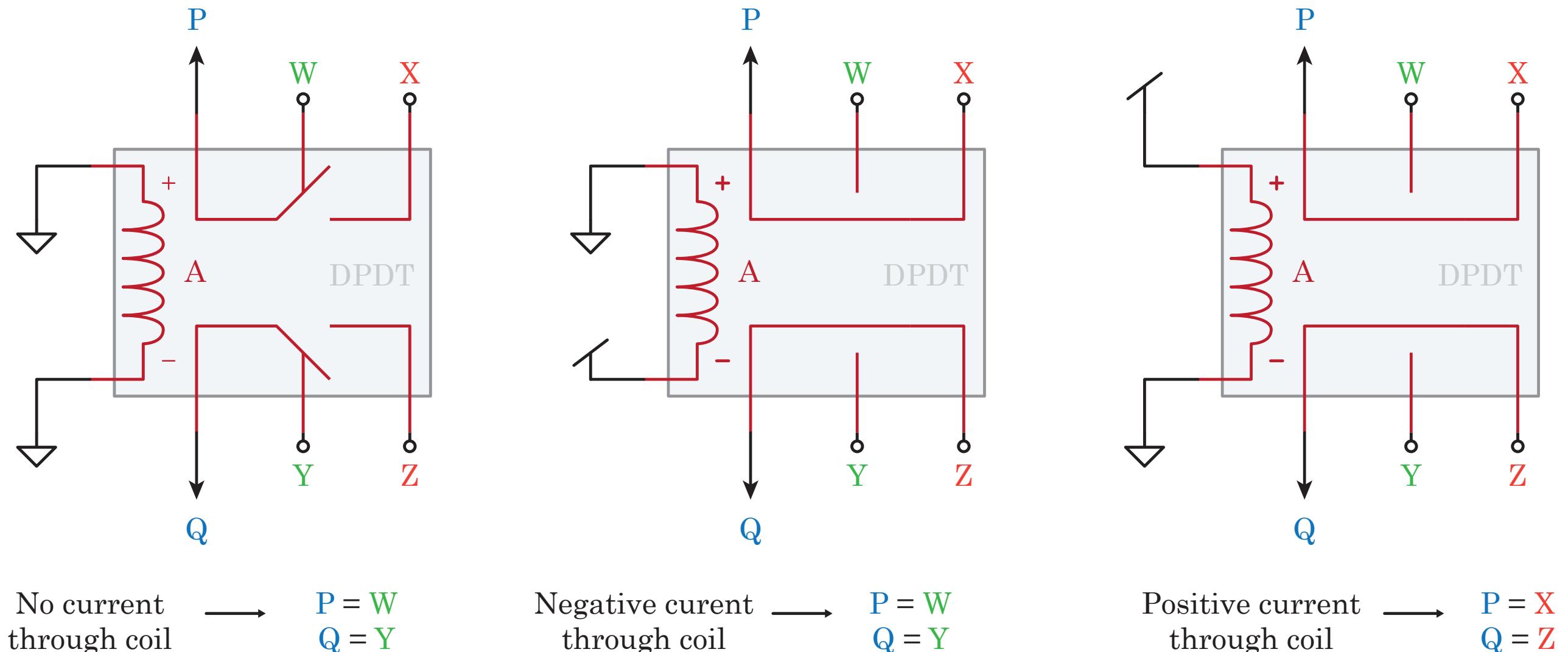
Computer Architecture, Fall 2008

Jeff Stanton (teammates Dani Dougherty & Nina Sawhney)

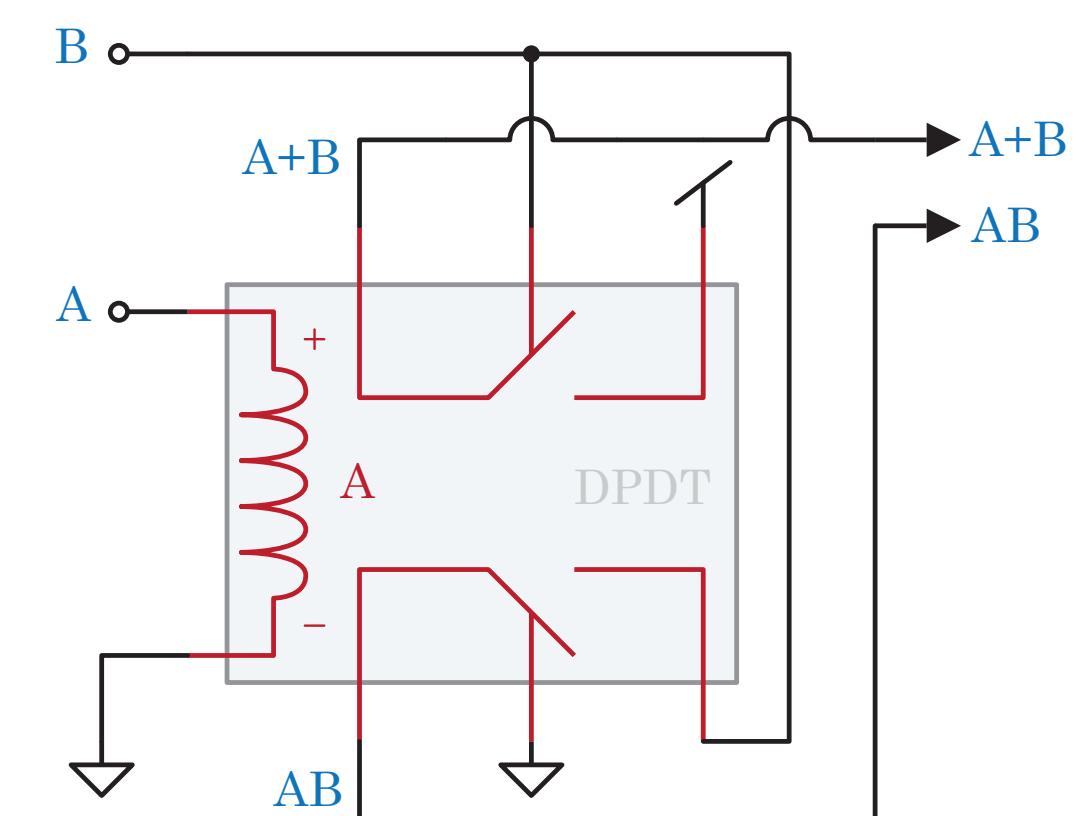
Presenter ID 349, Poster #38

Phase 1 (December 2008)
8-bit relay-based ALU
Add / Subtract / XOR
Microcontroller test unit

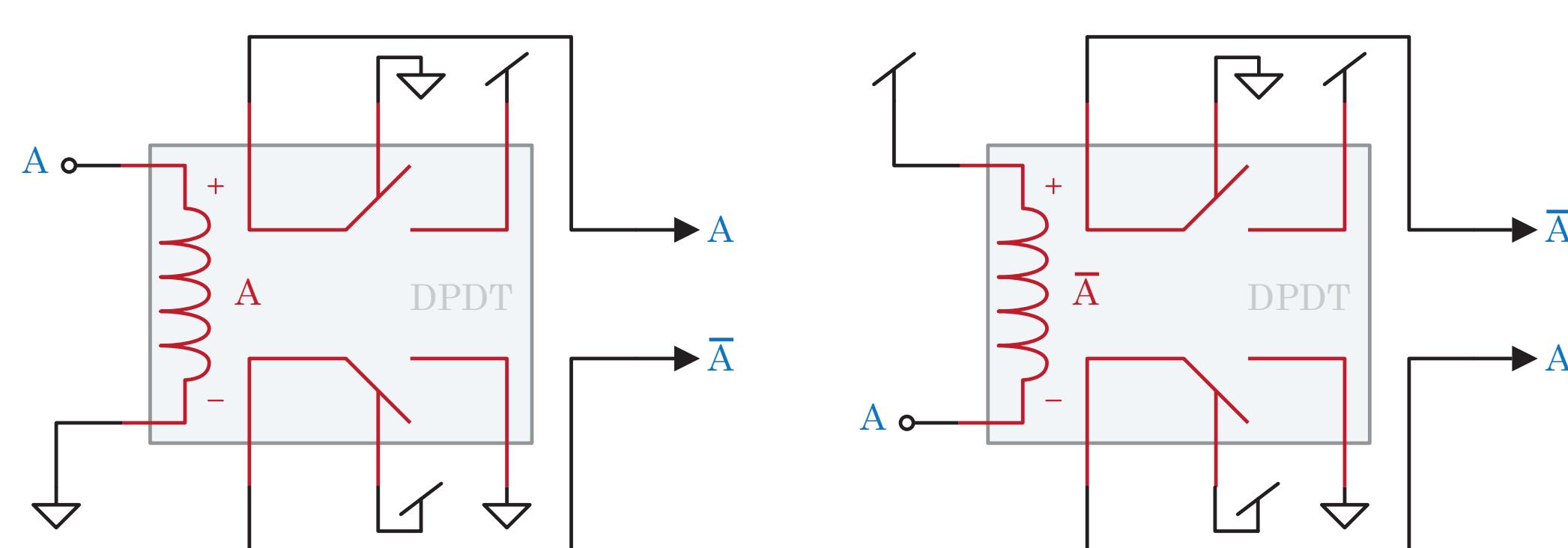
POLARIZED DPDT RELAYS



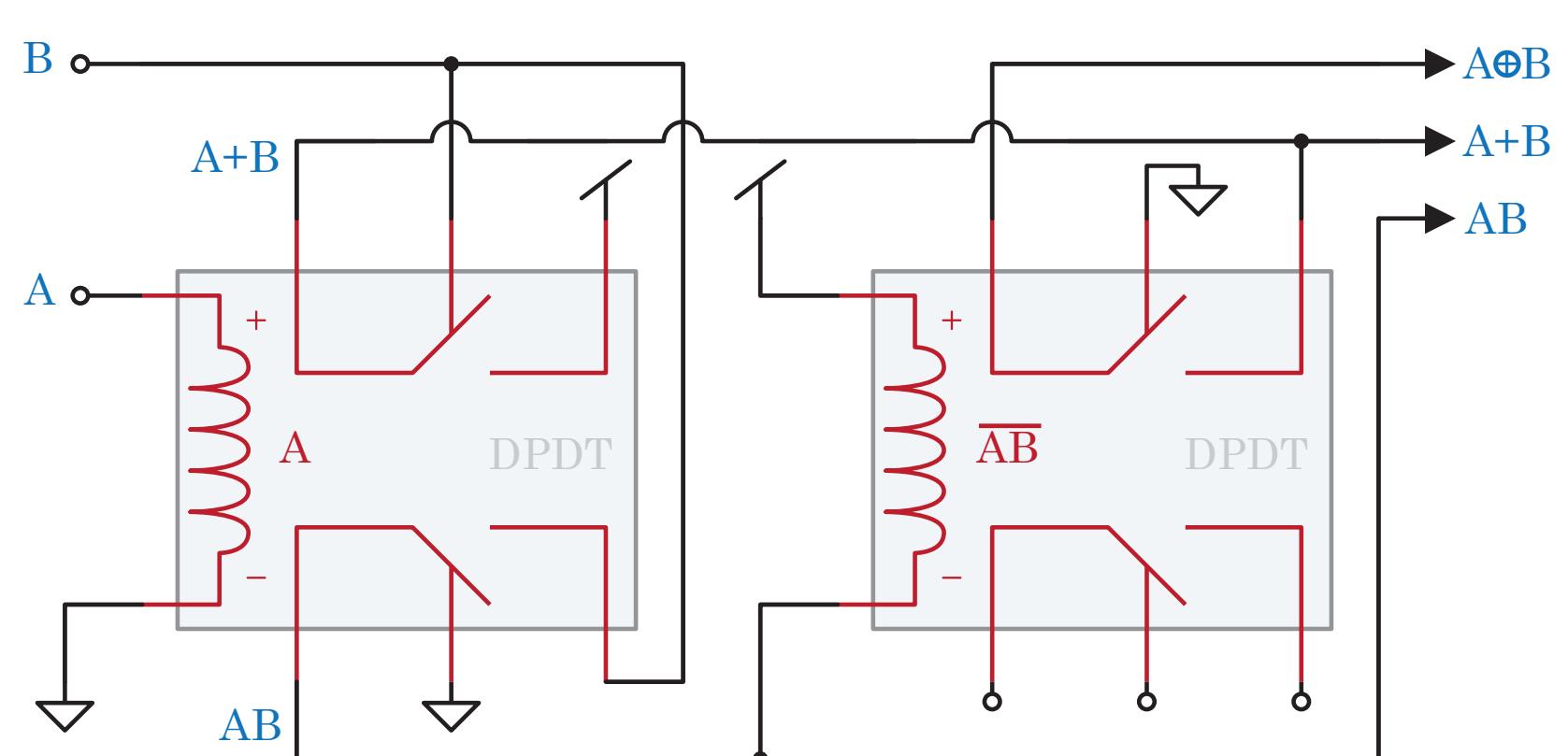
AO (AND/OR) GATE



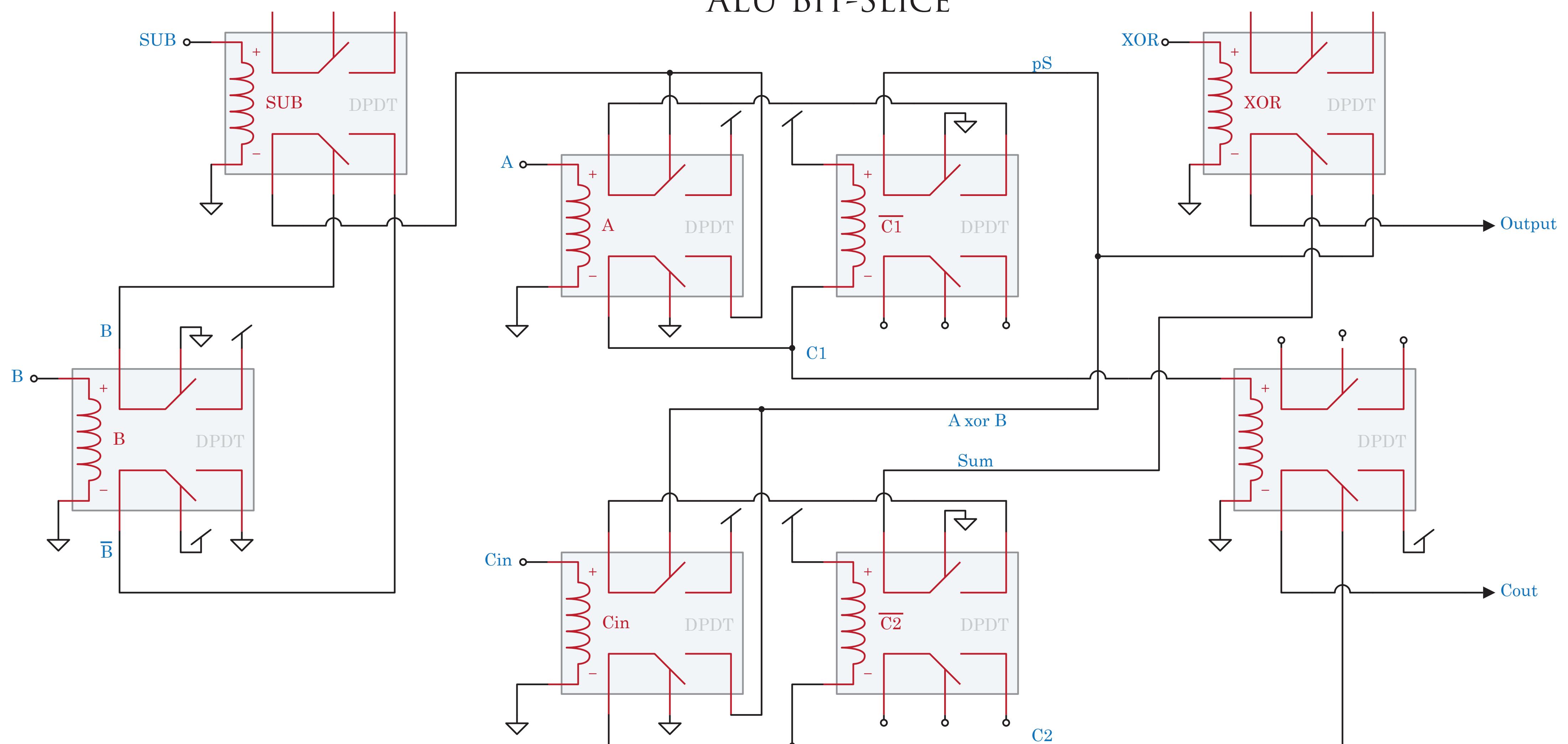
BUFFERS & INVERTERS



TWO-RELAY AOX (AND/OR/XOR) GATE



ALU BIT-SLICE



Shared Mux-Relay Architecture (SMRA) --> Decrease relay count in each bit slice