

Specification Document

Omkar Girish Kamath

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1 Modules in the processor

1.1 RAM

1.1.1 Theory

1.1.2 Interface

1.2 Program Counter

1.2.1 Theory

1.2.2 Interface

1.3 Instruction Register

1.3.1 Theory

1.3.2 Interface

1.4 Decoder

1.4.1 Theory

1.4.2 Interface

1.5 Accumulator

1.5.1 Theory

1.5.2 Interface

1.6 ALU

1.6.1 Theory

1.6.2 Interface

1.7 MUX

1.7.1 $\text{MUX}_{\text{IR to ALU}}$

1.7.2 $\text{MUX}_{\text{PC to ALU}}$

1.7.3 $\text{MUX}_{\text{Address in RAM}}$