

ABSTRACT

MULTIPLE EXECUTION UNIT BYPASSES FOR EFFICIENT PROCESSOR EXECUTION

A comprehensive bypassing scheme for increasing the throughput of instructions executed by a complex microprocessor. The functional units within the execution
5 data path are provided with bypassing multiplexer logic which allows the result data from an executed instruction to be immediately provided as source data to a dependent instruction at a different or the same execution unit. By providing comprehensive bypassing between execution units in
10 the data path, instruction execution throughput can be maximized.

(Figure 3)

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