Final Benchmarking Insights: Accelerators vs. CPU in Performance and Power Efficiency
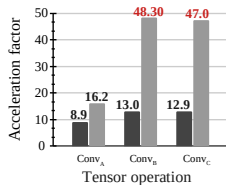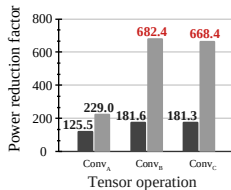
■ Floating-Point
■ Hybrid-Float6

Acceleration vs. CPU

Acceleration factor

8.9 / 16.2 (Conv$_A$), 13.0 / 48.30 (Conv$_B$), 12.9 / 47.0 (Conv$_C$)

Tensor operation

Power reduction vs. CPU

Power reduction factor

125.5 / 229.0 (Conv$_A$), 181.6 / 682.4 (Conv$_B$), 181.3 / 668.4 (Conv$_C$)

Tensor operation

Hardware resource utilization.

BRAM 36Kb   DSP   FF   LUT