Intel® Core™ i5-6300HQ CPU @ 2.30GHz (Skylake) L1: 32KB, L2: 256KB, L3: 6MB Compiler: gcc 7.5.0 Flag:-march=native -O3 13.5 L1 Cache L2 Cache 13.0 mul naive 12.5 mul_fix_precision Theoretical Maximum Performance 12.0 mul fix precision unroll 11.5 mul_fix_precision_1x_unroll 11.0 mul_fix_precision_2x_unroll 10.5 10.0 mul_fix_precision_4x_unroll 9.5 mul_fix_precision_8x_unroll 9.0 mul_fix_precision_12x_unroll 8.5 mul_fix_precision_16x_unroll 8.0 7.5 7.0 6.5 6.0 5.5 16x Speedup 5.0 4.5 4.0 3.5 mul_quad_double 3.0 2.5 2.0 1.5 1.0 0.5 0.0 2¹⁰ 2^{12} 2^{13} 2^{15} 2^{19} 28 2⁹ 2^{11} 2^{14} 2¹⁶ 2^{17} 2^{18} 2²⁰ 2²¹

Input Size / Precision [bit]

Performance [Intops/Cycle]