

First case:

Loop unrolling factor: NO

Array Partitioning: NO

Iteration latency: 3

Loop trip count: 256

Loop latency = $256 * 3 = 768$

Second case:

Loop unrolling factor: 2

Array Partitioning: NO

Iteration latency: 4

Loop trip count: $256 / 2 = 128$

Loop latency = $128 * 4 = 512$

Third case:

Loop unrolling factor: 2

Array Partitioning: YES

Iteration latency: 3

Loop trip count: $256 / 2 = 128$

Loop latency = $128 * 3 = 384$

Fourth case:

Loop unrolling factor: 4

Array Partitioning: YES

Iteration latency: 3

Loop trip count: $256 / 4 = 64$

Loop latency = $64 * 3 = 192$

You can also find these latencies in the synthesis reports.