# Table 5: AES Benchmarks – Performance Metrics

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| --- | --- | --- | --- | --- |
| Platform / Key Size | Throughput (MB/s) | Encryption Latency (μs) | Decryption Latency (μs) | Notes |
| General-Purpose CPU |  |  |  | AES performance on a typical desktop or server CPU |
| AES-128 | 400 | 2.5 | 2.2 |  |
| AES-192 | 375 | 2.8 | 2.5 |  |
| AES-256 | 350 | 3.1 | 2.8 |  |
| Dedicated Hardware (ASIC/FPGA) |  |  |  | Dedicated hardware can significantly speed up AES operations |
| AES-128 | 3000 | 0.33 | 0.30 |  |
| AES-192 | 2800 | 0.36 | 0.33 |  |
| AES-256 | 2600 | 0.38 | 0.35 |  |
| Mobile Device CPU |  |  |  | Performance on a typical mobile device's processor |
| AES-128 | 150 | 6.7 | 6.0 |  |
| AES-192 | 140 | 7.1 | 6.5 |  |
| AES-256 | 130 | 7.7 | 7.0 |  |