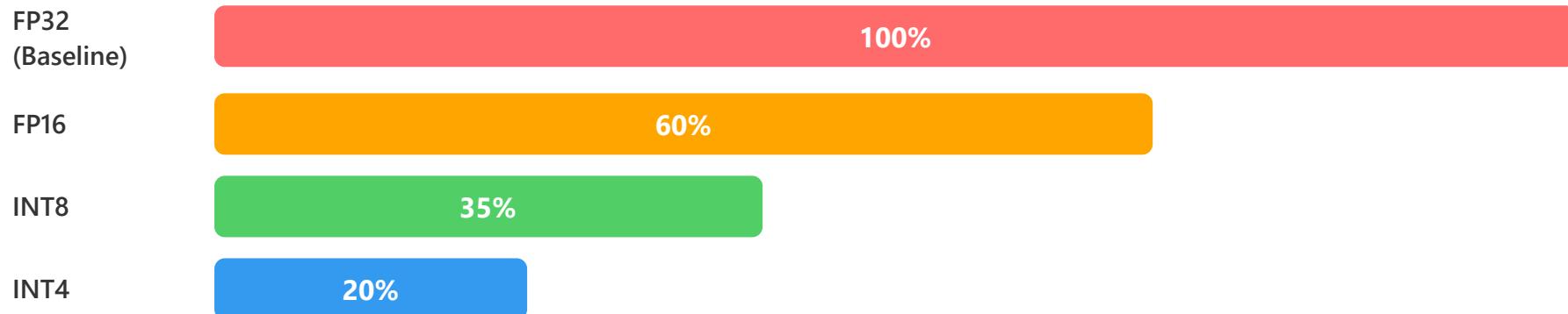


Battery Efficiency

Battery Efficiency Optimization

Minimizing power consumption for long-term use of mobile/wearable devices

Power Consumption During Model Execution



Power Saving Strategies

1

Aggressive Quantization

Reduce computational load using INT8/INT4

2

On-Demand Inference

Run model only when needed (event-based)

3

Batch Processing

Collect multiple samples and process at once

4

Hardware Accelerator Utilization

Use NPU/DSP (more efficient than CPU)

Trade-off: Battery life vs Model performance/accuracy

In medical applications, optimization must be done without compromising safety