

Table 1: Method characteristics: training requirements and additional parameters.

Method	Calibration	Training Time	Extra Params	Orthogonality
GPTQ	128 samples	Minutes	None	
AWQ	128 samples	Minutes	Scales only	
SmoothQuant	512 samples	Minutes	Scales only	
OmniQuant	128 samples	Hours	Affine params	
QuaRot	None	None	None	✓
SpinQuant	1024 samples	Hours	$O(n^2)$	✓ (100%)
ButterflyQuant	128 samples	5-10 min	$O(n \log n)$	✓ (100%)