

Check feature flag

CPUID.1H:ECX.OSXSAVE = 1?

Yes

OS provide processor  
extended state management

Check enable state

States  
enabled

Check supported  
flags:

SSE, AVX2, AVX512

No

Element-wise  
MPI reduction

AVX-512

AVX2

SSE

AVX-512,  
AVX2,  
SSE

AVX2,  
SSE

SSE