

# CPU to ISA Version Mapping

Mapping of some CPU versions to relevant ISA versions.

CPU	Architecture version
Power10	Power ISA v3.1
Power9	Power ISA v3.0B
Power8	Power ISA v2.07
Power7	Power ISA v2.06
Power6	Power ISA v2.05
PA6T	Power ISA v2.04
Cell PPU	<ul style="list-style-type: none"><li>• Power ISA v2.02 with some minor exceptions</li><li>• Plus AltiVec/VMX <math>\approx</math> 2.03</li></ul>
Power5++	Power ISA v2.04 (no VMX)
Power5+	Power ISA v2.03
Power5	<ul style="list-style-type: none"><li>• PowerPC User Instruction Set Architecture Book I v2.02</li><li>• PowerPC Virtual Environment Architecture Book II v2.02</li><li>• PowerPC Operating Environment Architecture Book III v2.02</li></ul>
PPC970	<ul style="list-style-type: none"><li>• PowerPC User Instruction Set Architecture Book I v2.01</li><li>• PowerPC Virtual Environment Architecture Book II v2.01</li><li>• PowerPC Operating Environment Architecture Book III v2.01</li><li>• Plus AltiVec/VMX <math>\approx</math> 2.03</li></ul>

## Key Features

CPU	VMX (aka. AltiVec)
Power10	Yes
Power9	Yes
Power8	Yes
Power7	Yes
Power6	Yes
PA6T	Yes
Cell PPU	Yes
Power5++	No
Power5+	No
Power5	No
PPC970	Yes

CPU	VSX
Power10	Yes
Power9	Yes
Power8	Yes
Power7	Yes
Power6	No
PA6T	No
Cell PPU	No
Power5++	No
Power5+	No
Power5	No
PPC970	No

CPU	Transactional Memory
Power10	No (* see Power ISA v3.1, "Appendix A. Notes on the Removal of Transactional Memory from the Architecture")
Power9	Yes (* see transactional_memory.txt)
Power8	Yes
Power7	No
Power6	No
PA6T	No
Cell PPU	No

CPU	Transactional Memory
Power5++	No
Power5+	No
Power5	No
PPC970	No