

XuanTie E Series Processor Comparison Table

The XuanTie E Series is designed for low power consumption and high energy efficiency requirements. These processors are suitable for various applications including entry-to-high-end MCU, smart cards, IoT devices, wireless access, audio, etc.

For more details, see individual E Series processor product page.

Feature	E901	E901+	E902	E906	E907
Instruction Set Architecture	RV32E[M]C[B]	RV32E[M]C[B]	RV32E[M]C	RV32IMA[F][D]C[P]	RV32IMA[F][D]C[P]
Pipeline Stage	2	2	2	5 (integer)	5 (integer)
Hardware Multiplier	No/Zmmul	No/MAD	No/MAD	MAD	MAD
Bus Interface	AMBA3 AHB-Lite 32-bit Second AHB (optional)	Dual AMBA3 AHB-Lite 32-bit	Dual AMBA3 AHB-Lite 32-bit	Dual AMBA3 AHB-Lite 32-bit	AXI4.0 64-bit/AHB 32-bit
Floating-Point Unit (FPU)	/	/	/	No/SP/SP+DP	No/SP/SP+DP
DSP Enhancement	/	/	/	Yes	Yes
Hybrid Branch Prediction	/	/	/	BHT/BTB/RAS (optional)	BHT/BTB/RAS (optional)
Instruction Cache	/	Up to 8KB (optional)	Up to 8KB (optional)	Up to 32KB (optional)	Up to 32KB (optional)
Data Cache	/	/	/	Up to 32KB (optional)	Up to 32KB (optional)
Physical Memory Protection (PMP)	/	Up to 16 regions (optional)	Up to 16 regions (optional)	Up to 16 regions (optional)	Up to 16 regions (optional)
Coprocessor	Yes (optional)	Yes (optional)	/	/	/
Execution Mode	M	M, U	M, U	M, U	M, U
Interrupts	Up to 112 external interrupts	Up to 112 external interrupts + NMI	Up to external 240 interrupts + NMI	Up to external 240 interrupts + NMI	Up to external 240 interrupts + NMI
Hardware Performane Monitoring (HPM)	/	/	/	Yes (optional)	Yes (optional)
XuanTie Extension	/	XuanTie cache extension	XuanTie MCU enhanced extensions	XuanTie MCU enhanced extensions	XuanTie MCU enhanced extensions
Sleep Mode	Sleep and deep sleep	Sleep and deep sleep	Sleep and deep sleep	Sleep and deep sleep	Sleep and deep sleep
RISC-V Debug	Yes	Yes	Yes	Yes	Yes
DMIPS/MHz	1.22	1.73	1.73	2.2	2.2
CoreMark/MHz	2.87	3.25	3.14	3.99	3.99