

# MaxLib™

## システムオンチップ コンポーネントライブラリ

MaxLib™は、AXYS Design社の高速で、精度がある、統合されたプロセッサ、メモリ、周辺モデルの増大するライブラリです。モデルは、サイクルベース、トランザクションベースであり、C/C++で開発され、適切なMaxLibパートナーで承認されたものです。

MaxLibプロセッサモデルは、AXYS Design社のプロセッサモデルおよびソフトウェア開発ツールの自動生成ツール、Max-Core™ Developer Suiteで生成されるモデル、もしくはプロセッサベンダとのOEM契約によりAXYS Design社から提供されるモデルです。

MaxLibモデルユーザは、同期のマルチコアSoCシミュレーションのために、AXYS Design社のMaxSim™ Developer Suiteを使って、早めにソフトウェア開発およびシステム検証向けの階層的なシステムオンチップ(SoC)モデルを簡単に生成することができます。

AXYS Design社は、HW/SW協調検証環境のような他のツールにモデルを取込むためのインテグレーションサービスも提供します。

**C166™**  
THE Standard for 16-bit Solutions

**MIPS**  
TECHNOLOGIES

**LSI LOGIC**

**CARMEL**  
THE DSP CORE

**TriCore**  
UNIFIED PROCESSOR

**AXYS**

**ARM**

**Infineon**  
technologies

**DSP**  
DSP GROUP

**Mentor**  
Graphics

**CONEXANT™**

**Fast! Accurate! Integrated!**



## MaxLib™ Models Overview

MaxLib™ Model Name	Category	Type	Vendor	Accuracy	Ports	Features	Availability
Conexant Countach IP Core Cycle Accurate	Processor	DSP	Conexant	CA			upon request
DSPGroup OakDSPCore Cycle Accurate	Processor	DSP	DSPGroup	CA	Ext. mem.;irq, fiq interrupt		now
Infineon CARMEL DSP Cycle Accurate	Processor	DSP	Infineon	CA	IO bus, DMA, interrupt, ext. waitstate, GPIO		now
LSI Logic CWDSP1660 Cycle Accurate	Processor	DSP	LSI	CA			upon request
ARM7TDMI Instruction Accurate	Processor	RISC	ARM	IA	Ext. mem.;irq, fiq interrupt		now
ARM7TDMI Cycle Accurate	Processor	RISC	ARM	CA	Ext. mem.;irq, fiq interrupt		now
ARM9TDMI Instruction Accurate	Processor	RISC	ARM	IA	Ext. mem.;irq, fiq interrupt		now
ARM920T Cycle Accurate	Processor	RISC	ARM	CA	Ext. AMBA mem.;irq, fiq interrupt		now
ARM940T Cycle Accurate	Processor	RISC	ARM	CA	Ext. AMBA mem.;irq, fiq interrupt		now
ARM9E S Cycle Accurate	Processor	RISC	ARM	CA	Ext. pipelined mem.;irq, fiq interrupt		now
ARM926EJ S Cycle Accurate	Processor	RISC	ARM	CA	Ext. AMBA-AHB mem.;irq, fiq interrupt		now
ARM946E S Cycle Accurate	Processor	RISC	ARM	CA			upon request
ARM966E S Cycle Accurate	Processor	RISC	ARM	CA			upon request
ARM710T Cycle Accurate	Processor	RISC	ARM	CA			upon request
ARM720T Cycle Accurate	Processor	RISC	ARM	CA			upon request
ARM740T Cycle Accurate	Processor	RISC	ARM	CA			upon request
ARM7TDMI S Cycle Accurate	Processor	RISC	ARM	CA			upon request
ARM9TDMI Cycle Accurate	Processor	RISC	ARM	CA			upon request
Infineon TriCore MPU(TC1M)	Processor	RISC	Infineon	CA	EXT M/S (LMB), LFI M/S (FPI), CPS S (FPI), ICU M/S, CPU-Signal M/S	subcomponents: CPU, MMU, PMU, DCI, LMB, LMB_SRAM, LFI, CPS, ICU	now
MIPS 5Kc Instruction Accurate	Processor	RISC	MIPS	IA	Ext. mem.; interrupt		now
MIPS 4Kc Instruction Accurate	Processor	RISC	MIPS	IA	Ext. mem.;irq, fiq interrupt		upon request
Generic AMBA memory model-single-ported	Memory	Generic	AXYS		single ported	configurable size & delay	upon request
Generic AMBA memory model-dual-ported	Memory	Generic	AXYS		dual ported	configurable size & delay	upon request
Generic AMBA memory model-3-ported	Memory	Generic	AXYS		3-ported	configurable size & delay	upon request
Generic AMBA memory model-4-ported	Memory	Generic	AXYS		4-ported	configurable size & delay	upon request
Generic untimed cache model	Memory	Generic	AXYS			configurable size & associativity	now
Generic untimed memory model-single-ported	Memory	Generic	AXYS		single ported	configurable size	now
Generic untimed memory model-dual-ported	Memory	Generic	AXYS		dual ported	configurable size	now
Generic untimed memory model-3-ported	Memory	Generic	AXYS		3-ported	configurable size	now
Generic untimed memory model-4-ported	Memory	Generic	AXYS		4-ported	configurable size	
Cycle accurate AMBAAHB bus model	Bus	AMBA	AXYS	CA		full AHB support, bus arbitration, split transactions	upon request
Cycle accurate AMBAASB bus model	Bus	AMBA	AXYS	CA		bus arbitration, unlimited number of slaves	now
Infineon TriCore External Components	Peripheral	FPI	Infineon	CA	S	configurable size & delay	now
Generic Bus Model	Peripheral	Generic	AXYS	CA			now
Generic Clock divider model	Peripheral	Generic	AXYS	CA		enable, offset, aspect-ratio	now
Generic DMA Model	Peripheral	Generic	AXYS	CA			upon request
Generic IO Model	Peripheral	Generic	AXYS	CA			now
Generic Timer Model	Peripheral	Generic	AXYS	CA			now
Audio Codec Interface	Peripheral	Prime Cell	ARM	IA	APB	8 bit, 16 byte FIFO, programmable data rate	upon request
Color LCD Controller	Peripheral	Prime Cell	ARM	IA	AHB	Color & Mono with grayscale, supports TFT, STN, single & dual panel	upon request
DC to DC Converter Interface	Peripheral	Prime Cell	ARM	IA	APB	1.8 MHz, 900, 225, 96 kHz programmable output	upon request
Dual AHB Master, DMA Controller	Peripheral	Prime Cell	ARM	IA	AHB	8 channel with scatter/gather support	upon request
General Purpose Input/Output	Peripheral	Prime Cell	ARM	IA	APB	1 x 8 bit with interrupt control	upon request
Keyboard/Mouse Interface	Peripheral	Prime Cell	ARM	IA	APB	PS2 compatible	upon request
Real Time Clock	Peripheral	Prime Cell	ARM	IA	APB	32 bit counter, match register, requires 1 Hz clock	upon request
SDRAM Controller	Peripheral	Prime Cell	ARM	IA	AHB	4 port Memory Controller, supports AHB on all four ports	upon request
Single AHB Master DMA Controller	Peripheral	Prime Cell	ARM	IA	AHB	2 channel with scatter/gather support	upon request
Smart Card Interface	Peripheral	Prime Cell	ARM	IA	APB	compliant with the EMV96 and ISO7816-3 standards	upon request
Static Memory Controller	Peripheral	Prime Cell	ARM	IA	AHB	SRAM, Flash and ROM	upon request
Synchronous Serial Interface	Peripheral	Prime Cell	ARM	IA	APB	supports Motorola SPI, TI SSI and Microwire	upon request
UART with IrDA SIR ENDEC	Peripheral	Prime Cell	ARM	IA	APB	similar to 16C550, 16 byte FIFO, up to 115K2 bits/s	upon request

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