Ascalon Feature Summary

Feature Backlog

Key	Summary
IPFEAT-3...	PRD [RVA23 Compliance] Alexandria CPU cores shall implement xttzvqdot extension
IPFEAT-3...	PRD [RVA23 Compliance] Alexandria CPU cores shall implement smstaten extension
IPFEAT-3...	PRD [RVA23 Compliance] Alexandria CPU cores shall implement smmpm extension
IPFEAT-3...	PRD [RVA23 Compliance] Alexandria CPU cores shall implement smnpm extension
IPFEAT-3...	PRD [RVA23 Compliance] Alexandria CPU cores shall implement writable mtvec (mask = 0xfffffffffffffffd)
IPFEAT-3...	PRD [RVA23 Compliance] Alexandria CPU cores shall implement writable misa (mask = 0x341029)
IPFEAT-3...	PRD: Alexandria Cluster Power Management Logic (CPL) shall meet ASIL-D reqs
IPFEAT-2...	PRD [PDK] Alexandria may use the target process node for SOP of TSMC N7A
IPFEAT-2...	PRD [PDK] Alexandria may use the target process node for SOP of TSMC N4
IPFEAT-2...	PRD [PDK] Alexandria shall use the target process node for SOP of TSMC N5A
IPFEAT-2...	PRD [Perf] Alexandria CPU core shall achieve at least 20 SPECint2006 / GHz, base score (single core)
IPFEAT-2...	PRD [Functional] Alexandria CPU cores shall support an interface for secure boot process.
IPFEAT-2...	PRD [Functional] Alexandria CPU cores shall support Static Trusted Execution Environment (STEE)

↻ Synced just now • 30 items

IP Feature Timeline

🗔 **IP Features | Timeline**

ascalon_d8 - ⚡ **IPFEAT-57: ASC D8** IN PROGRESS

Type	Key	Summary	Status	Lead Customer(s)
🔖	IPFEAT-62	Update CHI interfaces to lastest spec. (CHI.G as of 1-23-25)	BACKLOG	
🔖	IPFEAT-61	Out of Scope Feature	DEFERRED	
🔖	IPFEAT-60	Awesome Feature	FEATURE APPROVED	Tenstorrent
🔖	IPFEAT-44	RVA23 full spec	FEATURE APPROVED	
🔖	IPFEAT-47	Area (N5, TT): <0.96mm2	UNDER REVIEW	
🔖	IPFEAT-48	Power (TSMC5 TT/Vnom/85C): <260mw/GHz (for dhrystone); Leakage <80mw	UNDER REVIEW	
🔖	IPFEAT-40	>18 SPECint 2006	IMPLEMENTED	
🔖	IPFEAT-42	(SF4) Fmax improved to 2.5GHz	FEATURE APPROVED	

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ascalon_d8_auto - ⚡ **IPFEAT-59: Ariana (Concept)** BACKLOG

Type	Key	Summary	Assignee	Status	Lead Customer(s)
🔖	IPFEAT-440	PRD [Functional] Alexandria shall support a build-time configuration to remove all c…		BACKLOG	
🔖	IPFEAT-432	PRD [Software] Alexandria software shall provide software examples and toolchain…		BACKLOG	
🔖	IPFEAT-431	PRD [Software] Alexandria software shall include a programmer manual (CSR list, t…		BACKLOG	
🔖	IPFEAT-430	PRD [Software] Alexandria software shall expose debug-visible state (PC, privilege…		BACKLOG	
🔖	IPFEAT-429	PRD [Software] Alexandria software shall be testable with RISCOF/ISA validation s…		BACKLOG	
🔖	IPFEAT-428	PRD [Software] Alexandria software shall support interrupt and timer handler softw…		BACKLOG	
🔖	IPFEAT-427	PRD [Software] Alexandria software shall be compatible with `newlib` or other light…		BACKLOG	
🔖	IPFEAT-426	PRD [Software] Alexandria software shall be compatible with GCC and LLVM RISC-…		BACKLOG	
🔖	IPFEAT-425	PRD [Software] Alexandria software shall support for misaligned memory access h…		BACKLOG	
🔖	IPFEAT-424	PRD [Software] Alexandria software shall support atomic word access (AMO swap,…		BACKLOG	
🔖	IPFEAT-423	PRD [Software] Alexandria software shall support trap/interrupt handling in M-mod…		BACKLOG	
🔖	IPFEAT-422	PRD [Software] Alexandria software shall support Machine mode (M-mode) Base r…		BACKLOG	
🔖	IPFEAT-421	PRD [Software] Alexandria software shall implement Zifencei Required to ensure so…		BACKLOG	

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ascalon+_d8

Type	Key	Summary	Status	Lead Customer(s)
🔖	IPFEAT-36	Icache coherence enabled	BACKLOG	
🔖	IPFEAT-38	Area (N5, TT): <0.96mm2	BACKLOG	
🔖	IPFEAT-29	Power (TSMC5 TT/Vnom/85C): <260mw/GHz (for dhrystone); Leakage <80mw	BACKLOG	
🔖	IPFEAT-32	>19 Spec2K6/GHz	BACKLOG	
🔖	IPFEAT-25	Frequency 3GHz (internal/best effort) for N6 TT Vnom. Min of 2.75 TSMC N6	BACKLOG	

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