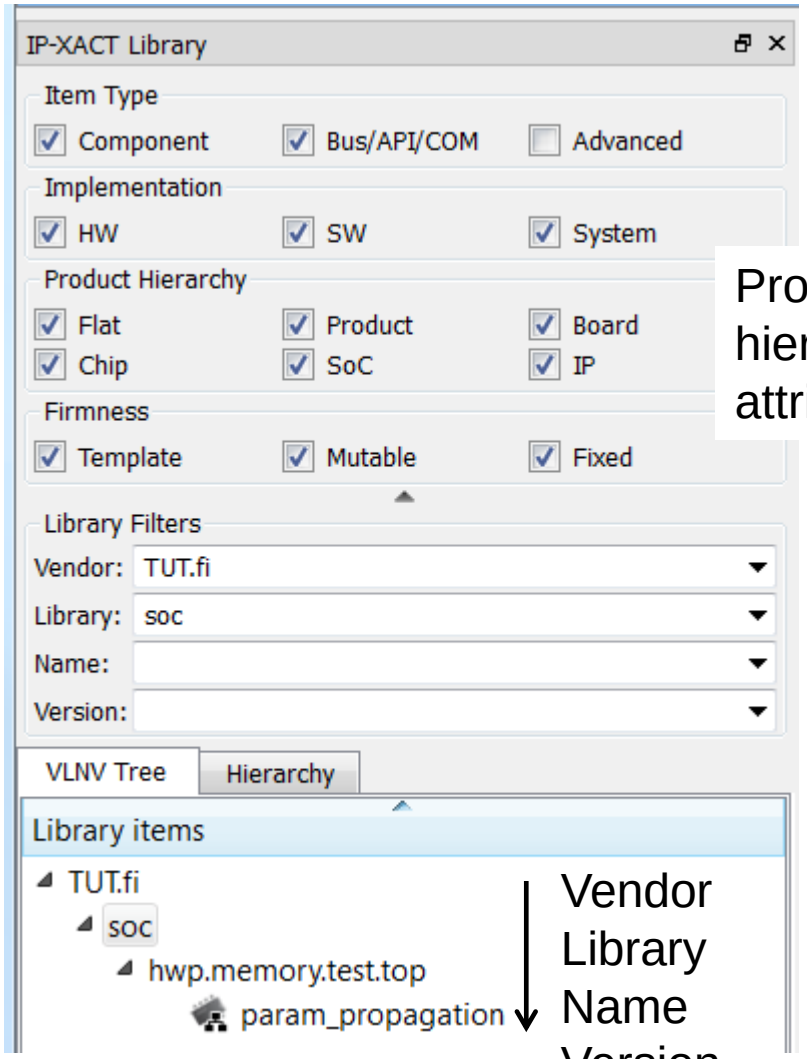
IP-XACT library in Kactus2

- VLNV= Vendor-Library-Name-Version
- Tools like Kactus2 explores the disk, finds ip-xact xml-files and builds a library model for the user
- IP-XACT objects are only referenced by VLNVs, not directory paths or file names
- Design hierarchy does not depend on file directory names, but we recommend that folders on disk are named according to VLNV
- Kactus2 adds attributes to IP-XACT objects for physical product hierarchy and firmness (vendor extensions to ip-xact)



Product hierarchy attributes

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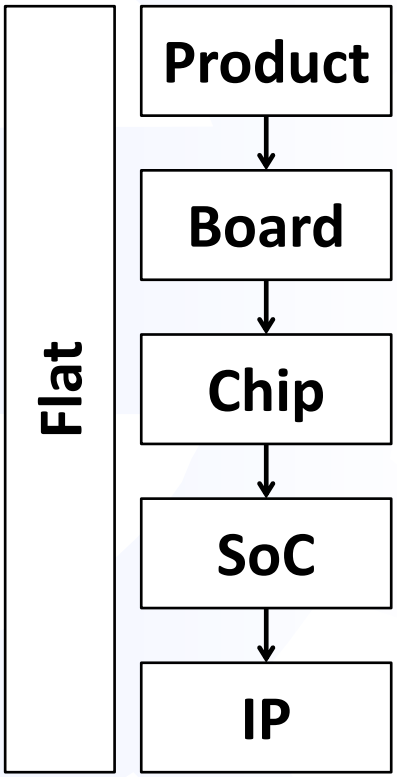
Kactus2 VLibraryNV naming recommendation is based on product hierarchy



Vendor	Library			Name	Version
Domain	Product hierarchy level / category			Function	**draft** or <string>
	flat			testsuite	draft
	product			myproductX	*1.0*
	board			fpgaboard	2020.1.2
	chip			sdram8mb	passed.1
	soc			aes	
tut.fi	***ip***	***app***		hevcenc	
		hwp	*accelerator*	dct	
			communication	wishbone	
			cpu	riscv	
			interface	pcie	
			storage	ddr2_ctrl	
			support	clock	
		swp	*api*	endpoint_4s	
			driver	usb	
			os	linux_x.x.x	
			stack	mcapi	

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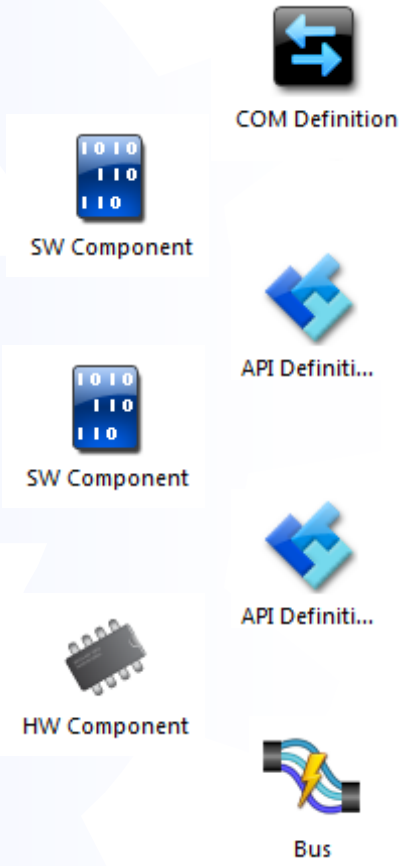
Kactus2 library item types follow software stack view to the product



COM definition (inter-process abstraction)

SW component (application)

API definition (SW platform abstraction)

SW component (SW platform)

API definition (HW platform abstraction)

HW component (HW platform)

Bus & Abstraction definition (HW interconnections)

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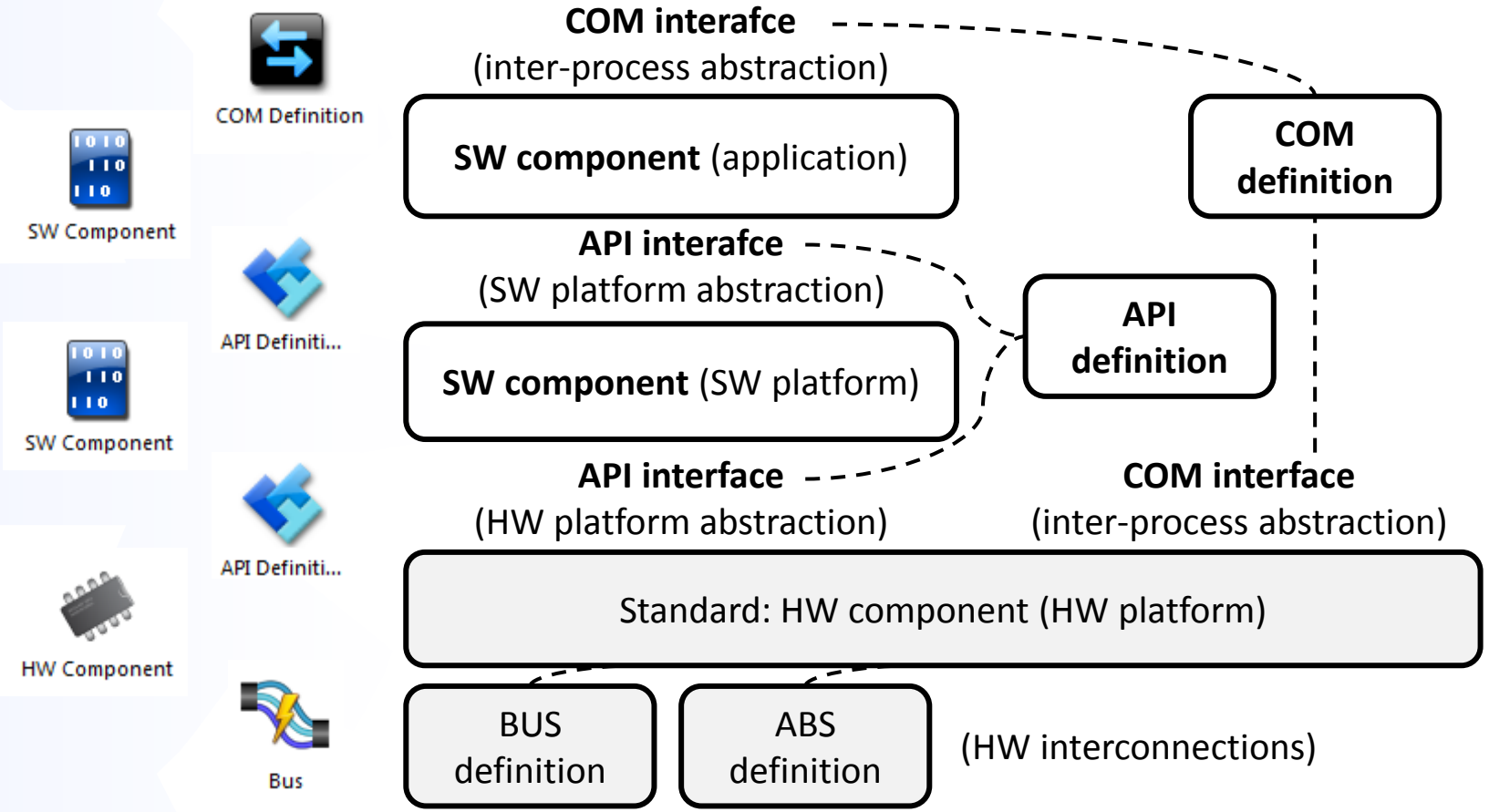
Library item relations



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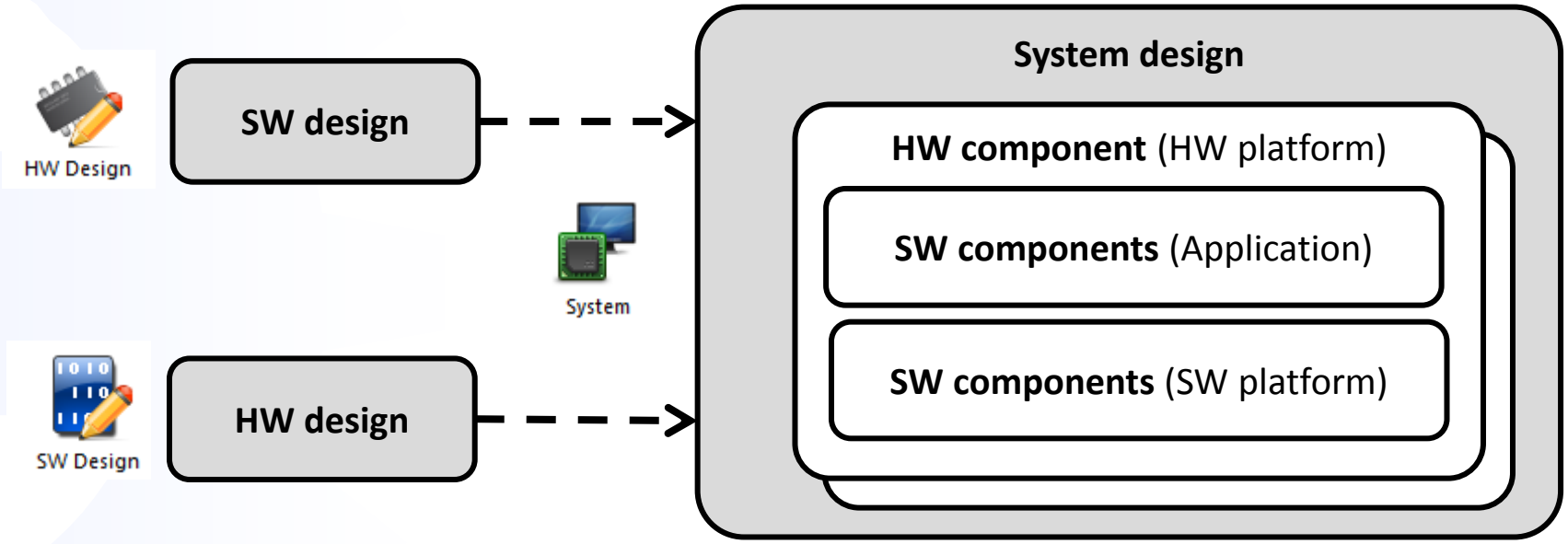
Kactus2 system designs include flattened HW designs and SW components mapped



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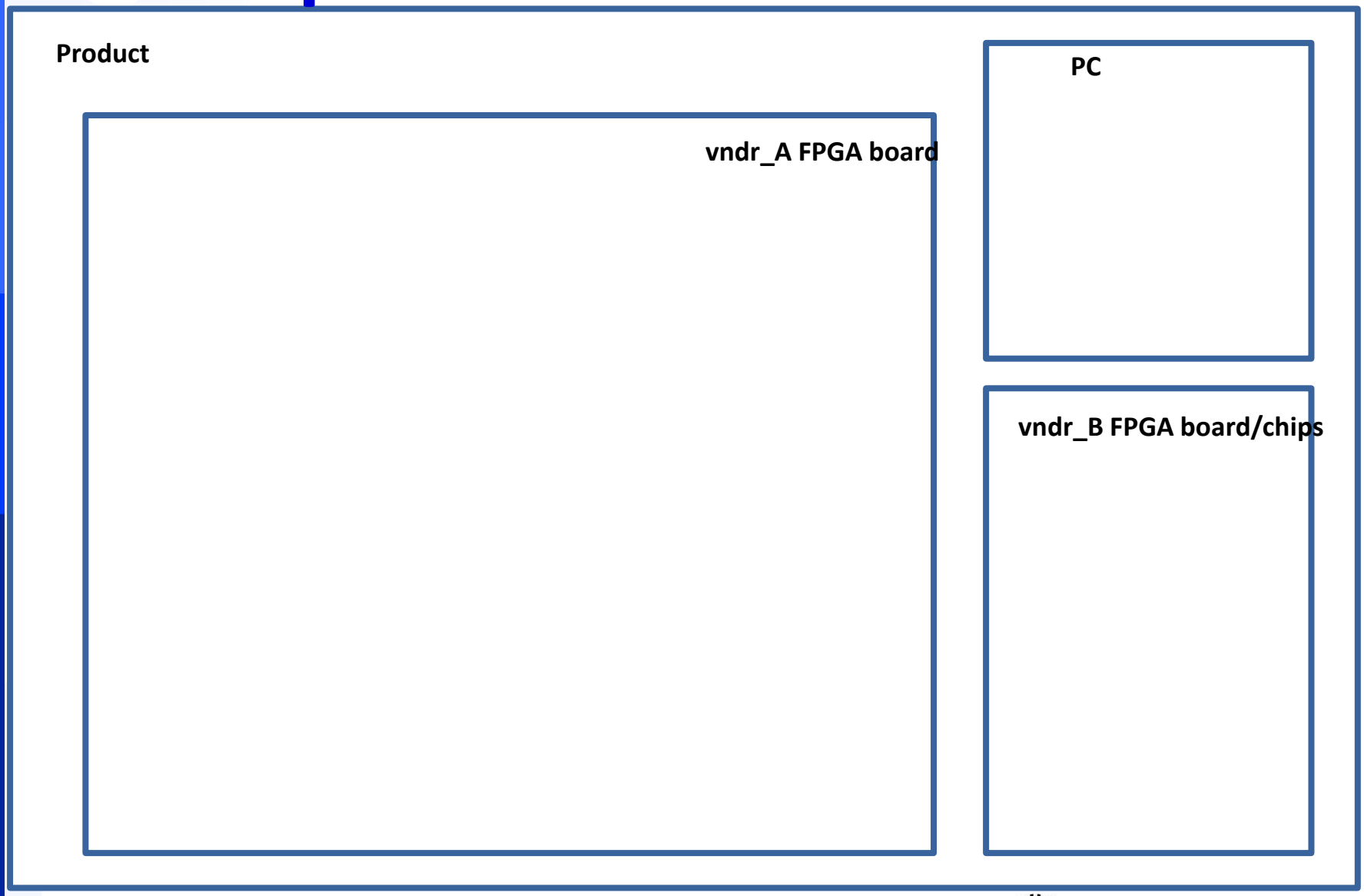
Example Product



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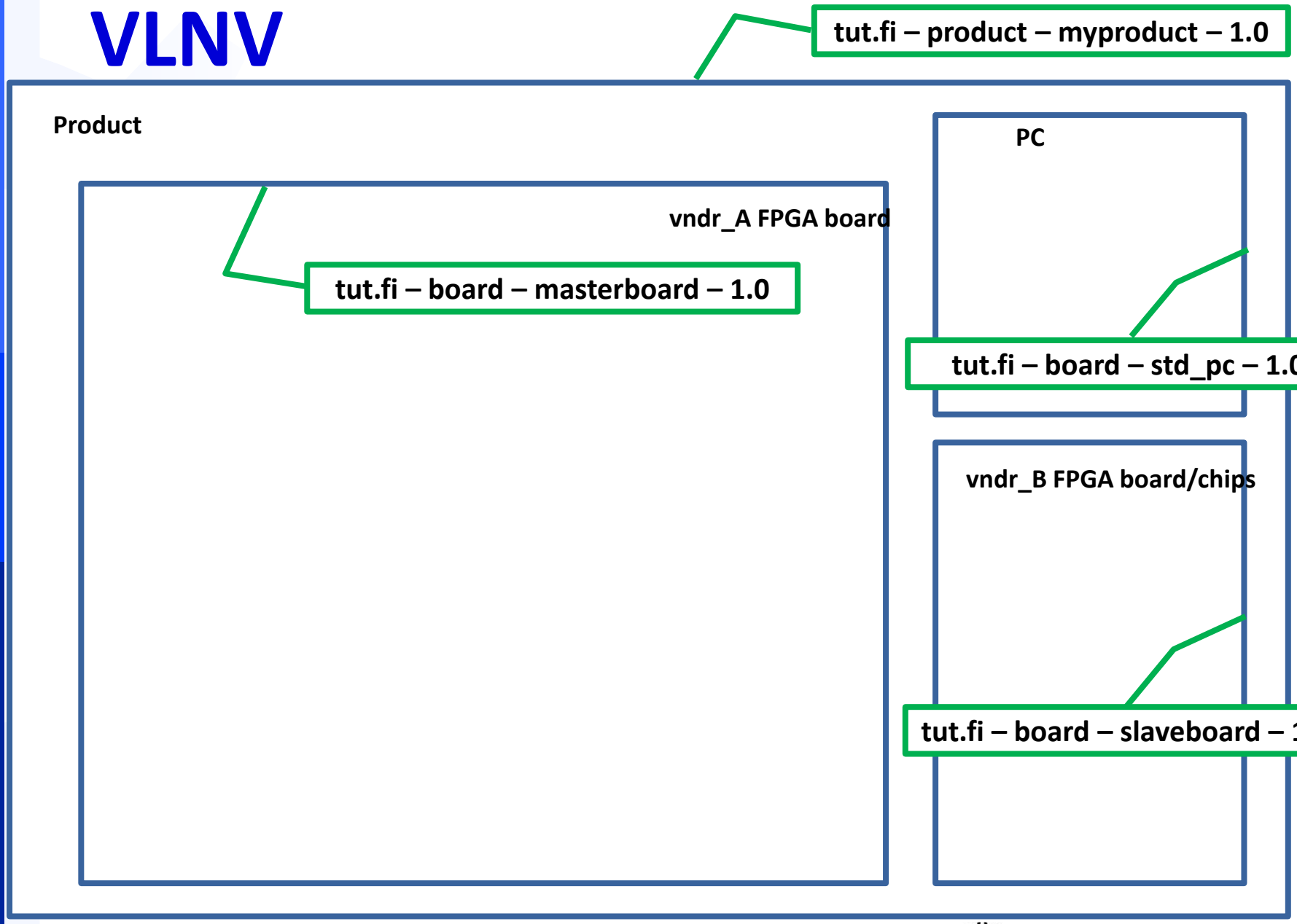
VLNV



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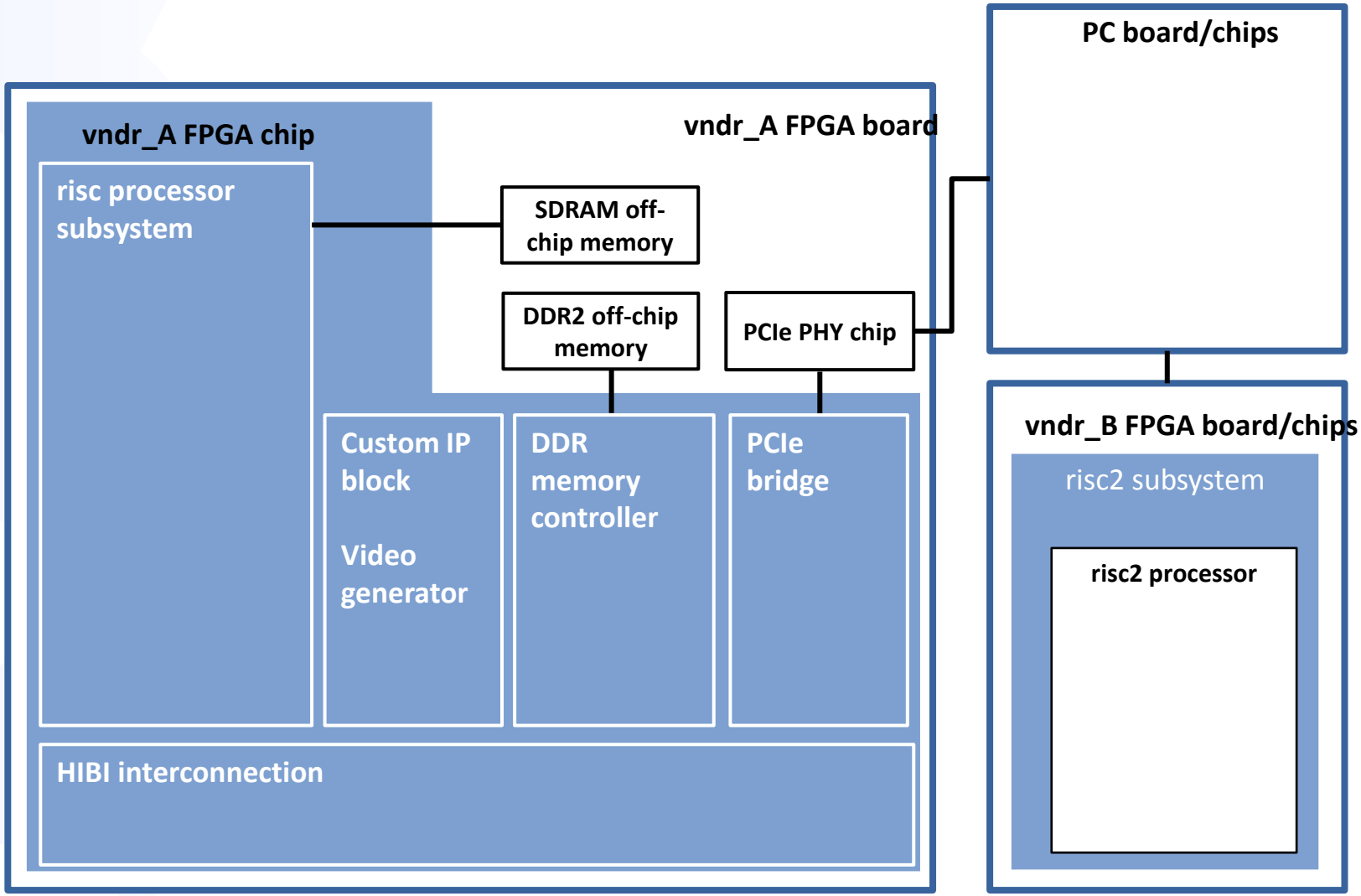
HW platform



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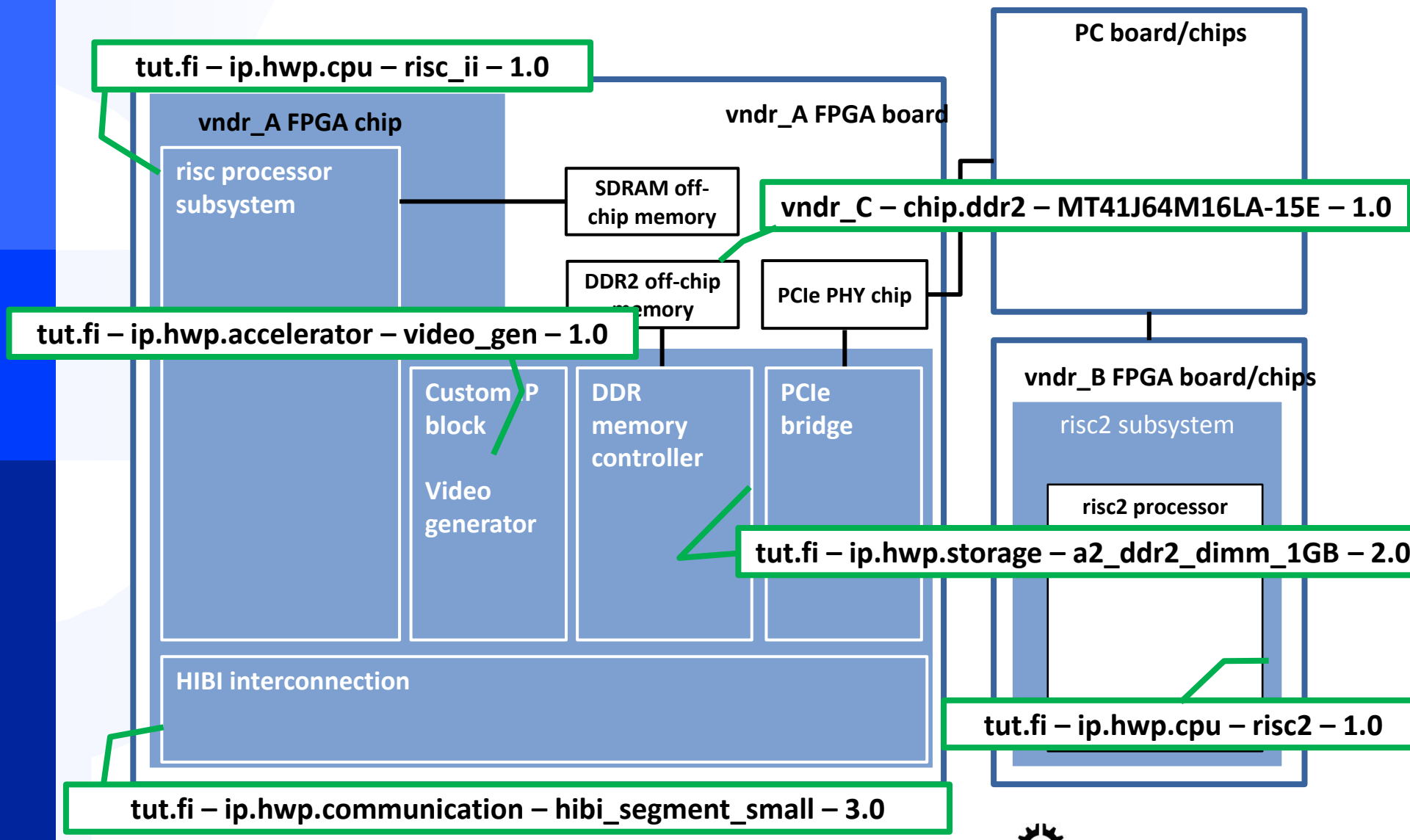
VLNV



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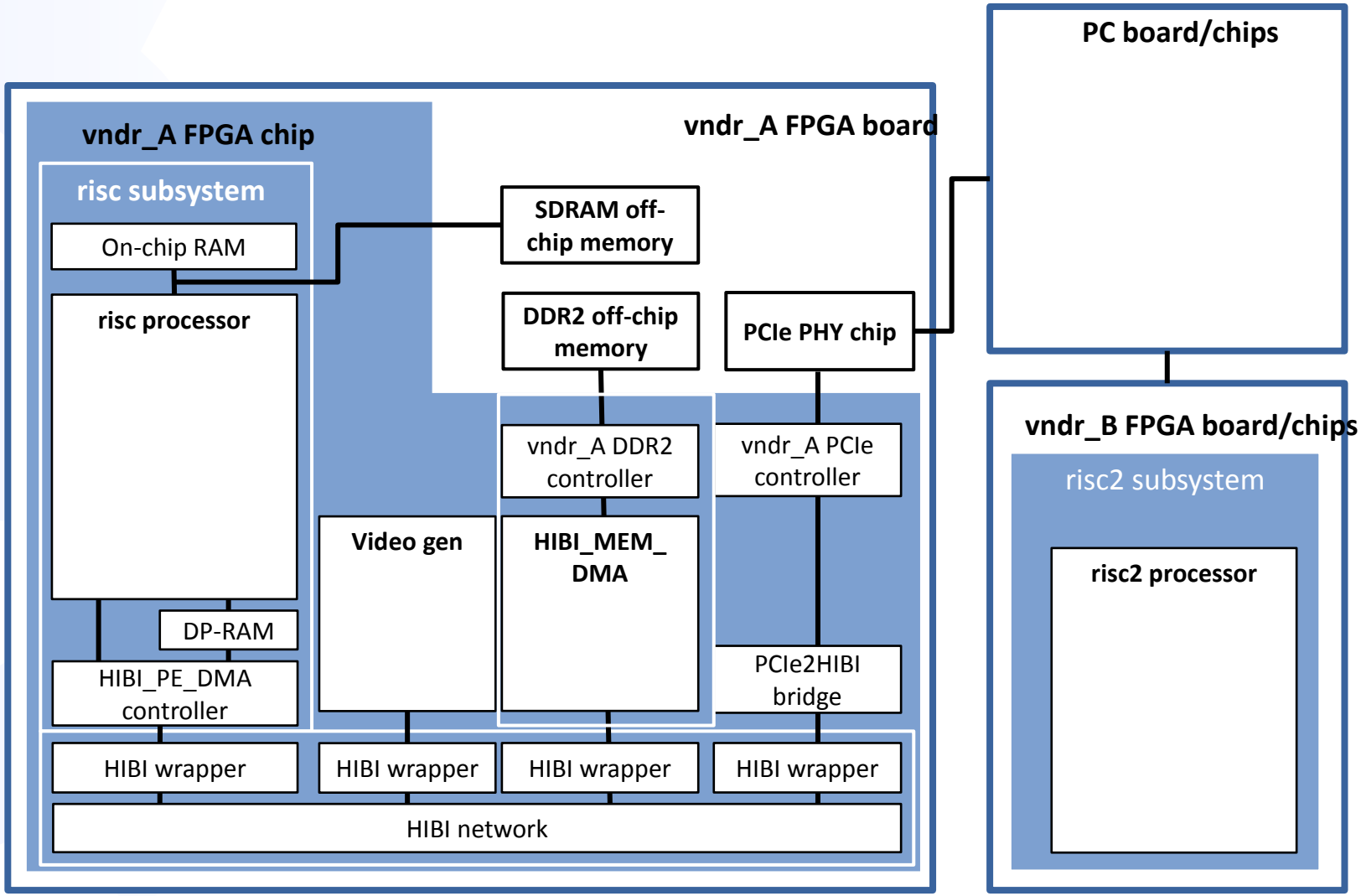
HW platform in detail



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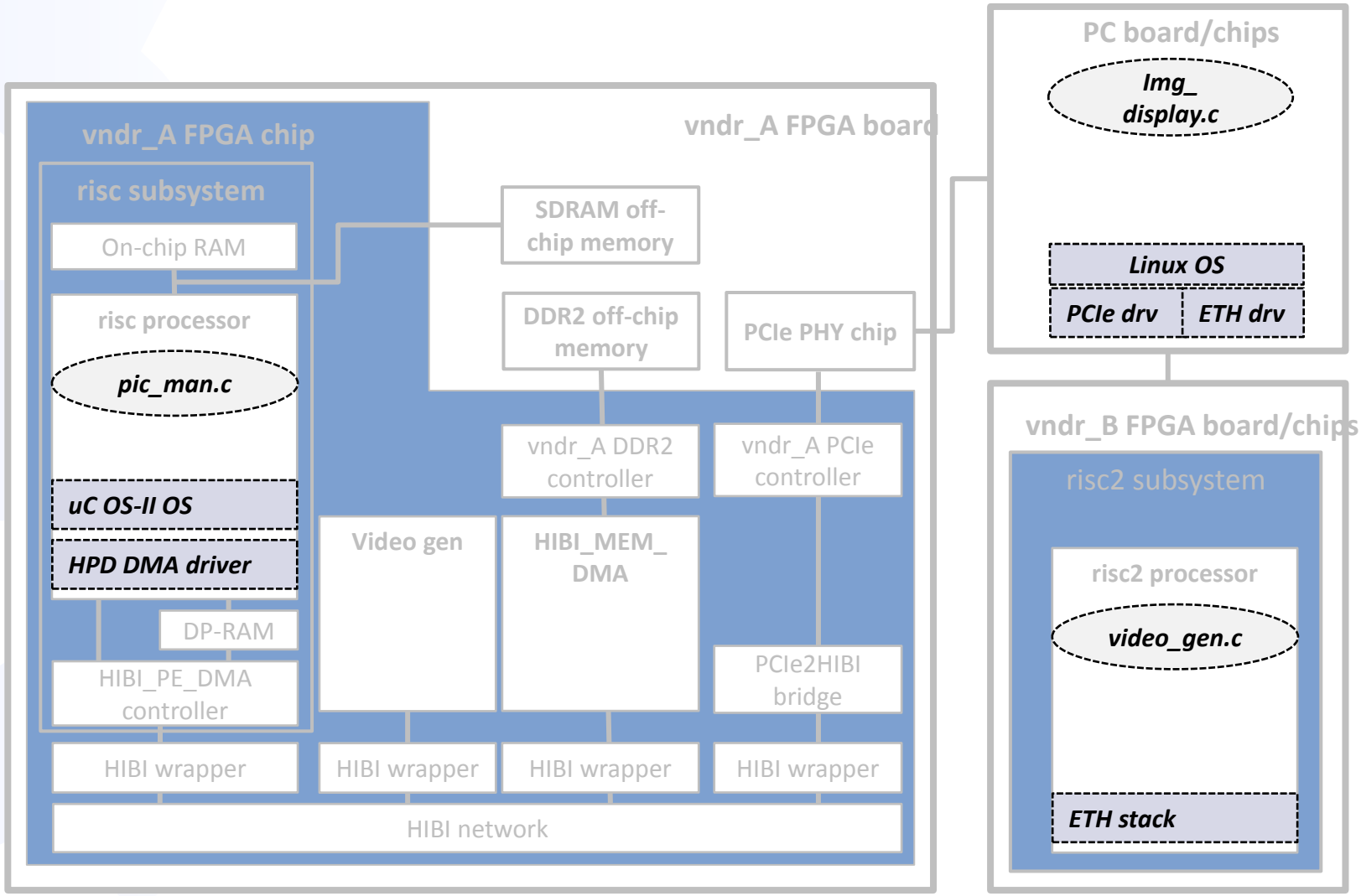
SW platform, Application SW



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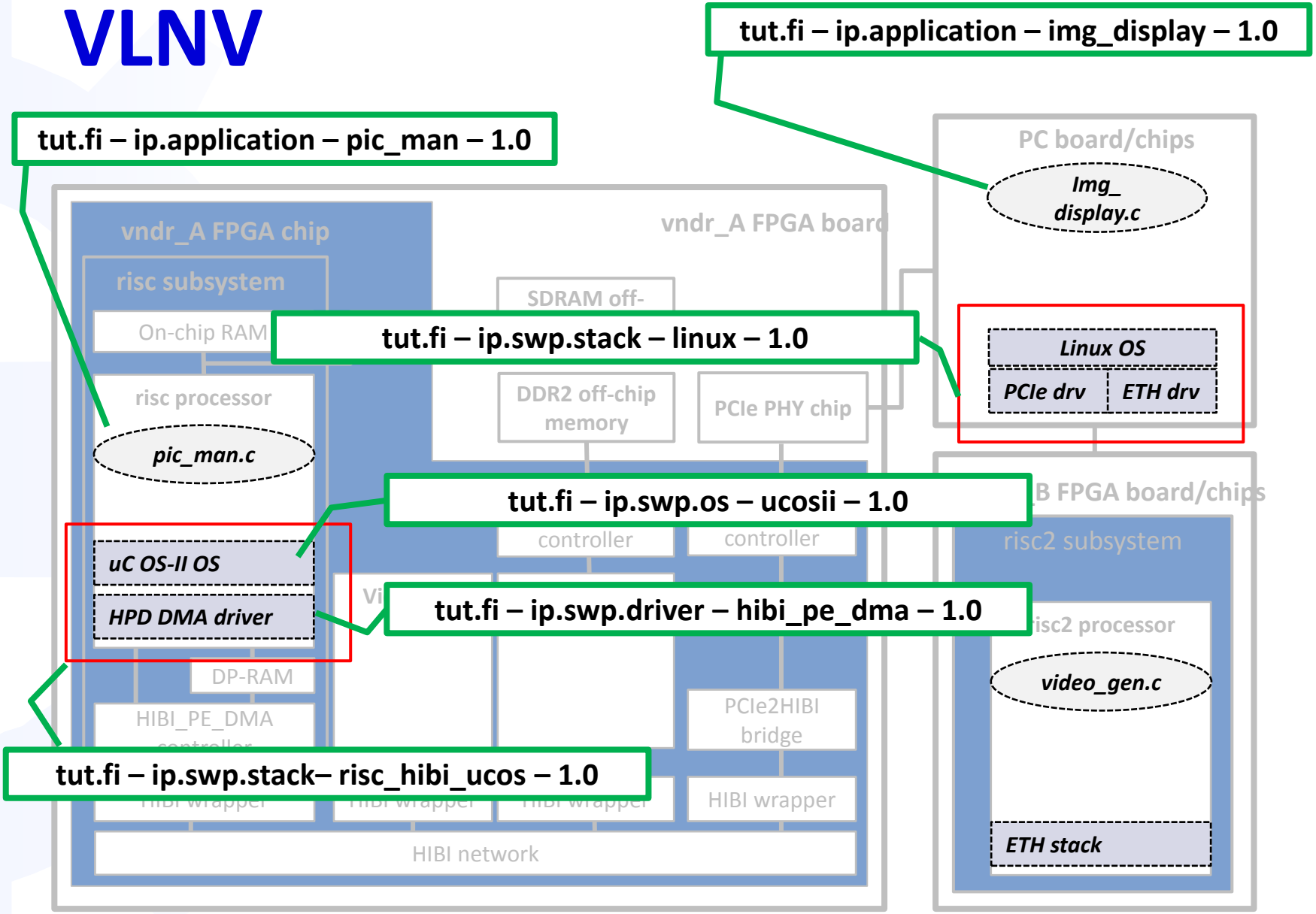
VLNV



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