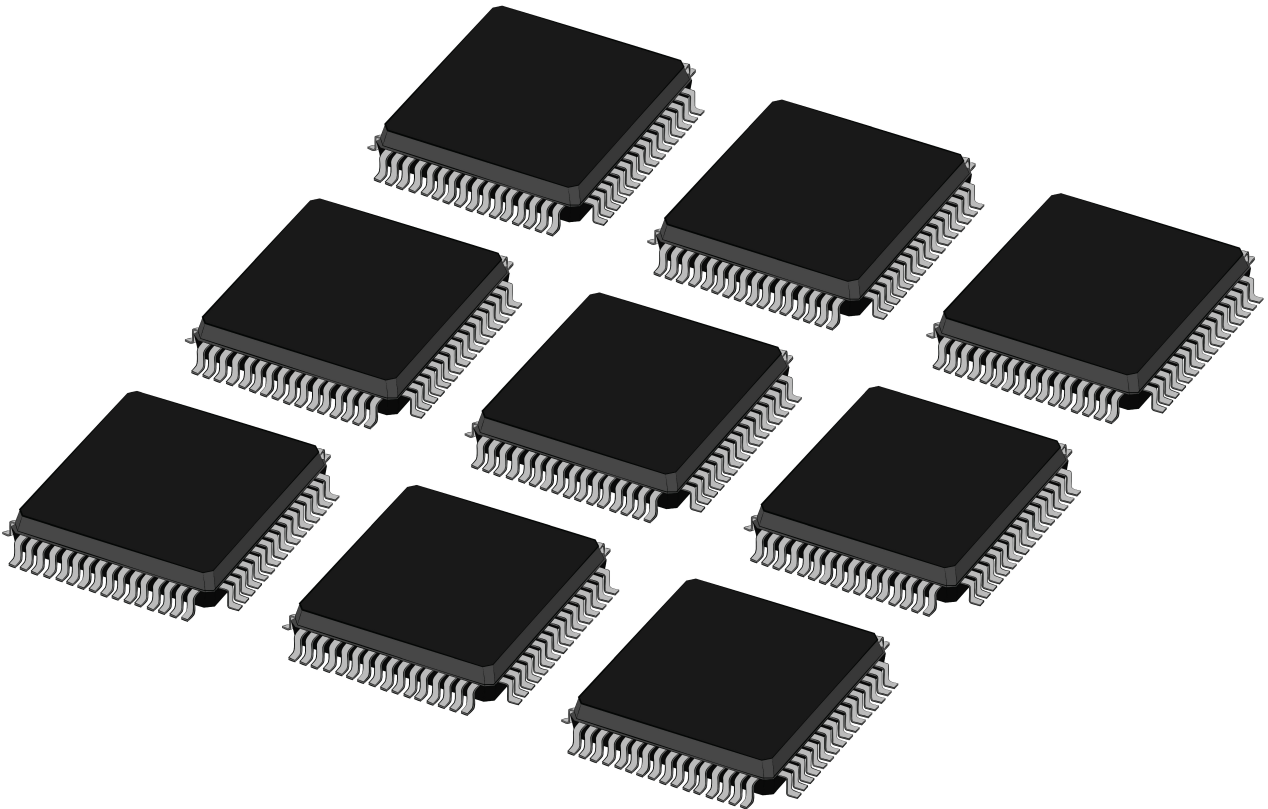


Systems

QueenField



Paco Reina Campo

Abstract

Systems.

Contents

1	OVERVIEW	5
1.1	DEPENDENCES	5
1.2	HARDWARE PROJECT	5
1.3	SOFTWARE PROJECT	6
2	PERIPHERAL	7
2.1	MPSoC-DBG	7
2.2	MPSoC-DMA	7
2.3	MPSoC-GPIO	7
2.4	MPSoC-MPI	7
2.5	MPSoC-MPRAM	7
2.6	MPSoC-MSI	8
2.7	MPSoC-NoC	8
2.8	MPSoC-SPRAM	8
2.9	MPSoC-UART	8
3	ARCHITECTURE	9
3.1	PROCESSIGN UNIT	9
3.1.1	PU-MSP430	9
3.1.2	PU-OR1K	9
3.1.3	PU-RISCV	9
3.2	SYSTEM ON CHIP	9
3.2.1	SoC-MSP430	9
3.2.2	SoC-OR1K	10
3.2.3	SoC-RISCV	10
3.3	MULTI-PROCESSOR SYSTEM ON CHIP	10
3.3.1	MPSoC-MSP430	10
3.3.2	MPSoC-OR1K	10
3.3.3	MPSoC-RISCV	10
4	ENVIRONMENT	11
4.1	DESIGN AND VERIFICATION	11
4.1.1	PU-DV	11
4.1.2	SoC-DV	11
4.1.3	MPSoC-DV	11
4.2	REAL TIME OPERATING SYSTEM	11
4.2.1	PU-RTOS	11
4.2.2	SoC-RTOS	12
4.2.3	MPSoC-RTOS	12
5	INTELLIGENCE	13
5.1	NEURAL TURING MACHINE	13
5.1.1	PU-NTM	13
5.1.2	SoC-NTM	13
5.1.3	MPSoC-NTM	13
5.2	DIFFERENTIABLE NEURAL COMPUTER	13
5.2.1	PU-DNC	13
5.2.2	SoC-DNC	14

5.2.3	MPSoC-DNC	14
6	APPLICATION	15
6.1	FINANCIAL TECHNOLOGY	15
6.1.1	PU-FinTech	15
6.1.2	SoC-FinTech	16
6.1.3	MPSoC-FinTech	16
6.2	ENERGY TECHNOLOGY	17
6.2.1	PU-EnergyTech	17
6.2.2	SoC-EnergyTech	17
6.2.3	MPSoC-EnergyTech	18
6.3	LIFE TECHNOLOGY	18
6.3.1	PU-LifeTech	18
6.3.2	SoC-LifeTech	18
6.3.3	MPSoC-LifeTech	20

List of Tables

List of Figures

1.1	Dependences	5
1.2	Hardware Project	6
1.3	Software Project	6
6.1	PU FinTech	15
6.2	SoC FinTech	16
6.3	MPSoC FinTech	16
6.4	PU EnergyTech	17
6.5	SoC EnergyTech	17
6.6	MPSoC EnergyTech	18
6.7	PU LifeTech	19
6.8	SoC LifeTech	19
6.9	MPSoC LifeTech	20

Chapter 1

OVERVIEW

1.1 DEPENDENCES

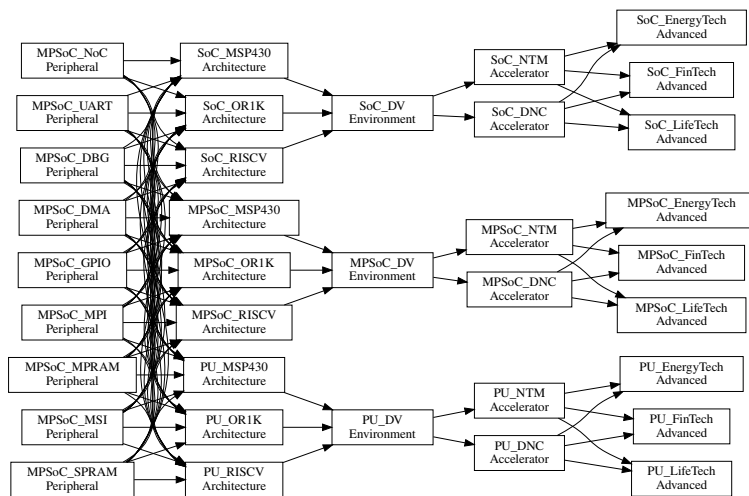


Figure 1.1: Dependences

1.2 HARDWARE PROJECT

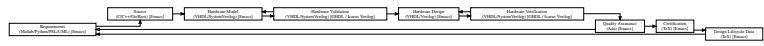


Figure 1.2: Hardware Project

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1.3 SOFTWARE PROJECT

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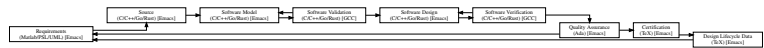


Figure 1.3: Software Project

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Chapter 2

PERIPHERAL

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2.1 MPSoC-DBG

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2.2 MPSoC-DMA

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2.3 MPSoC-GPIO

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2.4 MPSoC-MPI

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2.5 MPSoC-MPRAM

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2.6 MPSoC-MSI

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2.7 MPSoC-NoC

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2.8 MPSoC-SPRAM

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2.9 MPSoC-UART

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Chapter 3

ARCHITECTURE

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3.1 PROCESSIGN UNIT

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3.1.1 PU-MSP430

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3.1.2 PU-OR1K

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3.1.3 PU-RISCV

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3.2 SYSTEM ON CHIP

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3.2.1 SoC-MSP430

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3.2.2 SoC-OR1K

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3.2.3 SoC-RISCV

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3.3 MULTI-PROCESSOR SYSTEM ON CHIP

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3.3.1 MPSoC-MSP430

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3.3.2 MPSoC-OR1K

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3.3.3 MPSoC-RISCV

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Chapter 4

ENVIRONMENT

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4.1 DESIGN AND VERIFICATION

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4.1.1 PU-DV

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4.1.2 SoC-DV

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4.1.3 MPSoC-DV

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4.2 REAL TIME OPERATING SYSTEM

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4.2.1 PU-RTOS

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4.2.2 SoC-RTOS

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4.2.3 MPSoC-RTOS

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Chapter 5

INTELLIGENCE

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5.1 NEURAL TURING MACHINE

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5.1.1 PU-NTM

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5.1.2 SoC-NTM

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5.1.3 MPSoC-NTM

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5.2 DIFFERENTIABLE NEURAL COMPUTER

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5.2.1 PU-DNC

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5.2.2 SoC-DNC

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5.2.3 MPSoC-DNC

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Chapter 6

APPLICATION

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6.1 FINANCIAL TECHNOLOGY

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6.1.1 PU-FinTech

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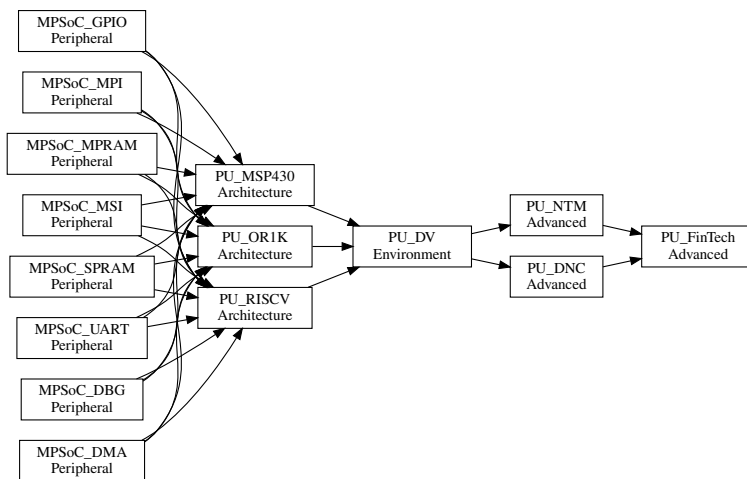


Figure 6.1: PU FinTech

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6.1.2 SoC-FinTech

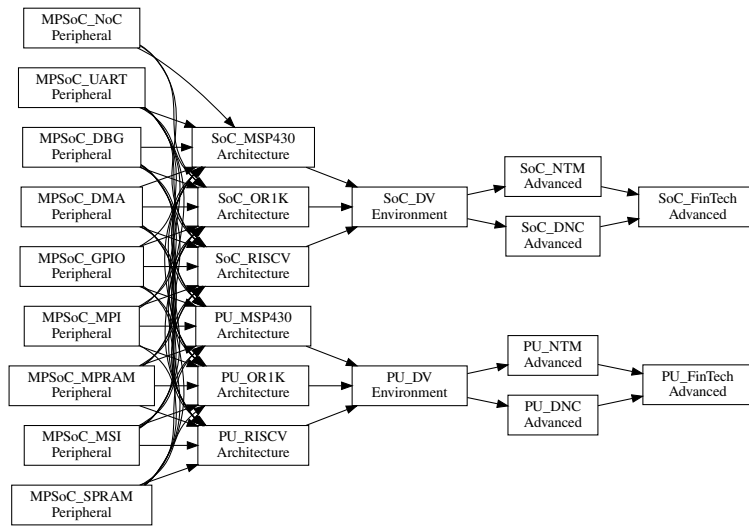


Figure 6.2: SoC FinTech

6.1.3 MPSoC-FinTech

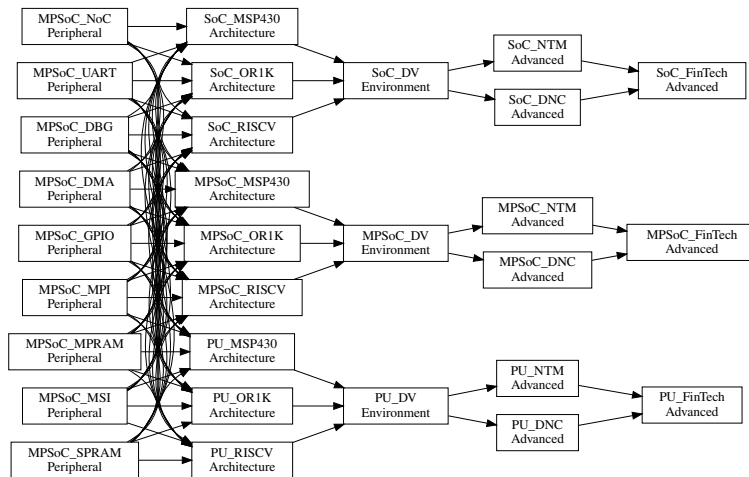


Figure 6.3: MPSoC FinTech

6.2 ENERGY TECHNOLOGY

6.2.1 PU-EnergyTech

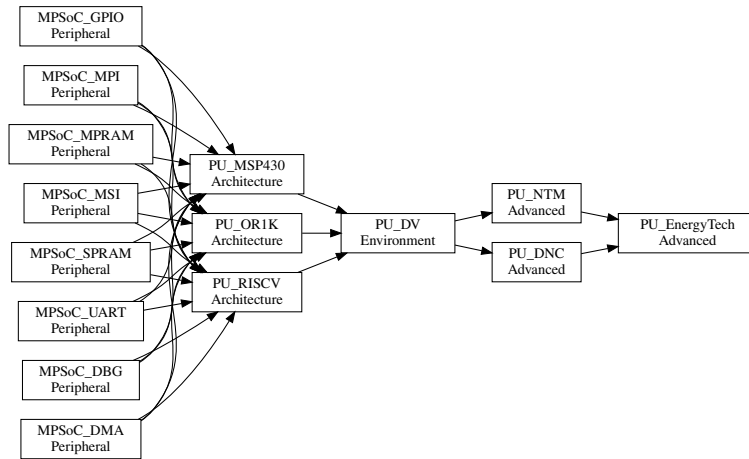


Figure 6.4: PU EnergyTech

6.2.2 SoC-EnergyTech

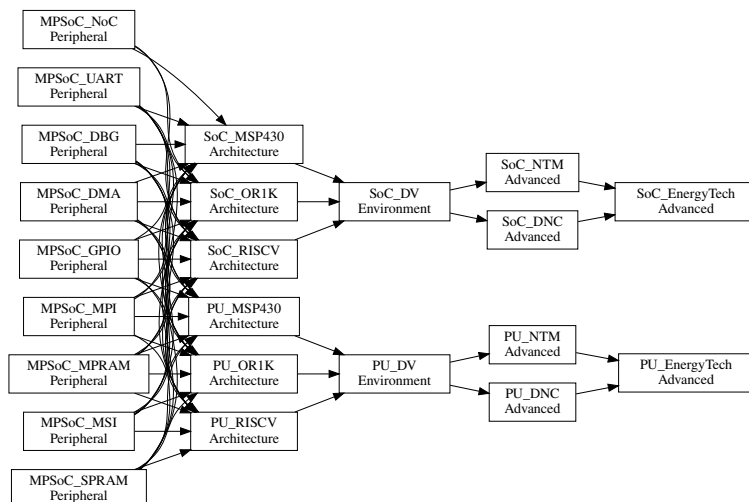


Figure 6.5: SoC EnergyTech

6.2.3 MPSoC-EnergyTech

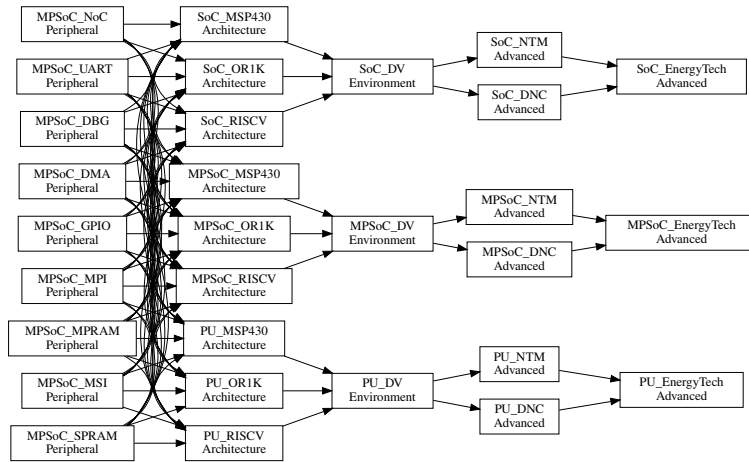


Figure 6.6: MPSoC EnergyTech

6.3 LIFE TECHNOLOGY

6.3.1 PU-LifeTech

6.3.2 SoC-LifeTech

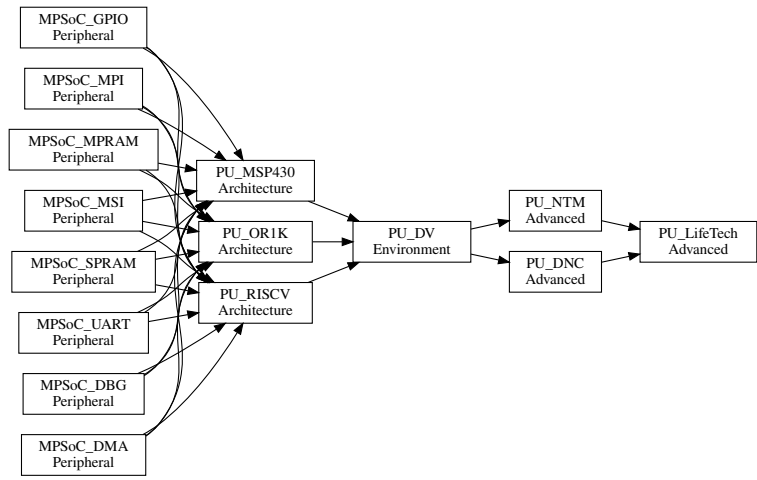


Figure 6.7: PU LifeTech

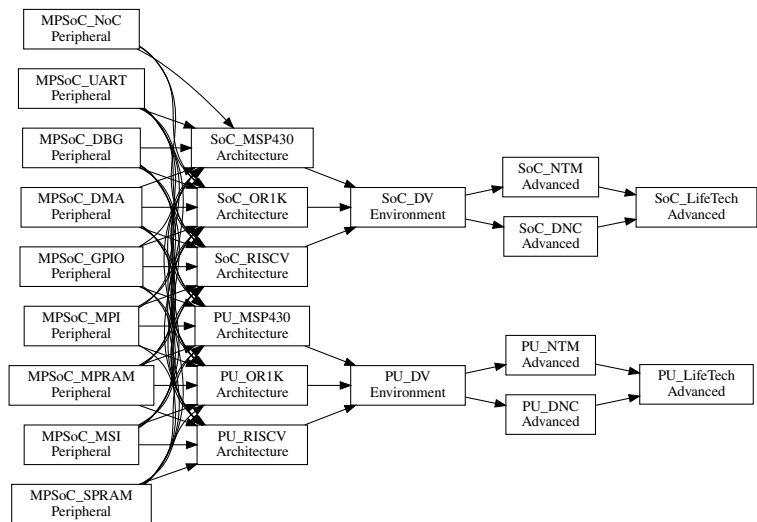


Figure 6.8: SoC LifeTech

6.3.3 MPSoC-LifeTech

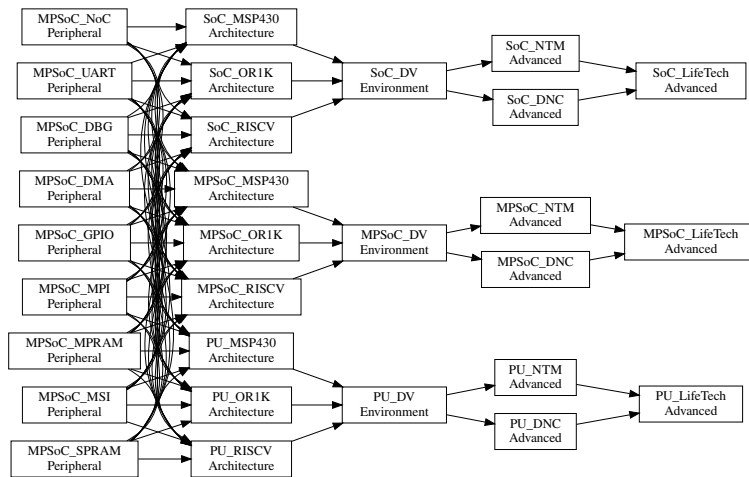


Figure 6.9: MPSoC LifeTech