



CZECH TECHNICAL UNIVERSITY IN PRAGUE

Faculty of Electrical Engineering

Department of Electric Drives and Traction

Name of the report

Technical report

Petr Zakopal
Prague 2023

TABLE OF CONTENTS

1	Introduction	1
	Conclusion	2
	References	4
Appendix A	List of symbols and abbreviations	5
A.1	List of abbreviations.....	5
A.2	List of symbols	6

LIST OF FIGURES

LIST OF TABLES

1 Introduction

SoC P_n .

Conclusion

References

- [1] DIGILENT, Inc. Zybo. In: *Digilent Documentation* [online]. [B.r.] [visited on 2022-11-11]. Available from: <https://digilent.com/reference/programmable-logic/zybo/start>.
- [2] DIGILENT, Inc. Zybo Z7 Migration Guide. In: *Digilent Documentation* [online]. [B.r.] [visited on 2022-11-11]. Available from: <https://digilent.com/reference/programmable-logic/zybo-z7/migration-guide>.
- [3] XILINX, Inc. SoCs with Hardware and Software Programmability. In: *Xilinx Website* [online]. [B.r.] [visited on 2022-11-11]. Available from: <https://www.xilinx.com/products/silicon-devices/soc/zynq-7000.html>.
- [4] XILINX, Inc. Zynq-7000 SoC Technical Reference Manual. In: *Xilinx Documentation* [online]. 02. 04. 2021 [visited on 2022-11-11]. Available from: <https://docs.xilinx.com/v/u/en-US/ug585-Zynq-7000-TRM>.
- [5] DIGILENT, Inc. Zybo Reference Manual. In: *Digilent Documentation* [online]. [B.r.] [visited on 2022-11-11]. Available from: <https://digilent.com/reference/programmable-logic/zybo/reference-manual>.
- [6] XILINX, Inc. Vivado Design Suite User Guide: Release Notes, Installation, and Licensing (UG973). In: *AMD Xilinx Documentation Portal* [online]. [B.r.] [visited on 2022-11-18]. Available from: <https://docs.xilinx.com/r/en-US/ug973-vivado-release-notes-install-license/>.
- [7] XILINX, Inc. PetaLinux Tools Documentation: Reference Guide (UG1144). In: *AMD Xilinx Documentation Portal* [online]. [B.r.] [visited on 2022-11-18]. Available from: <https://docs.xilinx.com/r/en-US/ug1144-petalinux-tools-reference-guide>.
- [8] XILINX, Inc. Downloads. In: *AMD Xilinx Downloads* [online]. [B.r.] [visited on 2022-11-19]. Available from: <https://www.xilinx.com/support/download.html>.
- [9] XILINX, Inc. Downloads. In: *AMD Xilinx PetaLinux Tools* [online]. [B.r.] [visited on 2022-11-19]. Available from: <https://www.xilinx.com/products/design-tools/embedded-software/petalinux-sdk.html>.
- [10] INC., Xilinx. Zynq-7000 SoC Technical Reference Manual (UG585). In: *Xilinx Documentation Portal* [online]. 02. 04. 2021 [visited on 2023-02-28]. Available from: <https://docs.xilinx.com/v/u/en-US/ug585-Zynq-7000-TRM>.
- [11] XILINX, Inc. System-on-Modules (SOMs): How and Why to Use Them. In: *Xilinx Website* [online]. [B.r.] [visited on 2023-03-10]. Available from: <https://www.xilinx.com/products/som/what-is-a-som.html>.
- [12] XILINX, Inc. Kria KR260 Robotics Starter Kit. In: *Xilinx Website* [online]. [B.r.] [visited on 2023-03-10]. Available from: <https://www.xilinx.com/products/som/kria/kr260-robotics-starter-kit.html>.
- [13] XILINX, Inc. Kria SOM Carrier Card Design Guide (UG1091). In: *AMD Xilinx Documentation Portal* [online]. 27. 07. 2022 [visited on 2023-03-18]. Available from: <https://docs.xilinx.com/r/en-US/ug1091-carrier-card-design/Introduction>.
- [14] XILINX, Inc. Kria K26 SOM Data Sheet (DS987). In: *AMD Xilinx Documentation Portal* [online]. 26. 07. 2022 [visited on 2023-03-18]. Available from: <https://docs.xilinx.com/r/en-US/ds987-k26-som>.

- [15] XILINX, Inc. Kria KR260 Robotics Starter Kit User Guide (UG1092). In: *AMD Xilinx Documentation Portal* [online]. 17. 05. 2022 [visited on 2023-04-05]. Available from: <https://docs.xilinx.com/r/en-US/ug1092-kr260-starter-kit/Interfaces>.
- [16] XILINX, Inc. Kria K26 System-on-Module. In: *AMD Xilinx Product Brief* [online]. [B.r.] [visited on 2023-04-05]. Available from: <https://www.xilinx.com/content/dam/xilinx/publications/product-briefs/xilinx-k26-product-brief.pdf>.
- [17] XILINX, Inc. XTP743 - Kria KR260 Starter Kit Carrier Card Schematics (v1.0). In: *AMD Xilinx Board Files* [online]. 09. 06. 2022 [visited on 2023-04-06]. Available from: <https://www.xilinx.com/member/forms/download/design-license.html?cid=bad0ada6-9a32-427e-a793-c68fed567427&filename=xtp743-kr260-schematic.zip>.
- [18] XILINX, Inc. XTP685 - Kria K26 SOM XDC File (v1.0). In: *AMD Xilinx Board Files* [online]. 14. 05. 2021 [visited on 2023-04-06]. Available from: <https://www.xilinx.com/member/forms/download/design-license.html?cid=29e0261a-9532-4a47-bb06-38c83bbbb8c0&filename=xtp685-kria-k26-som-xdc.zip>.
- [19] ADMIN, Confluence Wiki; ROY, Debraj; DYLAN. Embedded SW Support. In: *Xilinx Wiki* [online]. 28. 02. 2023 [visited on 2023-04-06]. Available from: <https://xilinx-wiki.atlassian.net/wiki/spaces/A/pages/18841631/Embedded+SW+Support>.
- [20] FOUNDATION, Linux. Real-Time Linux. In: *Linux Foundation DokuWiki* [online]. [B.r.] [visited on 2023-04-06]. Available from: <https://wiki.linuxfoundation.org/realtime/start>.
- [21] XILINX, Inc. Zynq UltraScale+ MPSoC Processing System Product Guide (PG201). In: *Xilinx Documentation* [online]. 11. 05. 2021 [visited on 2023-04-13]. Available from: <https://docs.xilinx.com/r/en-US/pg201-zynq-ultrascale-plus-processing-system/Fabric-Reset-Enable>.
- [22] ZAKOPAL, Petr et al. [Kria SOM KR260 Starter Kit] Schematic (pdf) vs constrains (xdc) pin confusion. Possible explanation on fan pinout. In: *Xilinx Support Community Forum*. 18. 03. 2023. Available also from: https://support.xilinx.com/s/question/0D54U00006alUwcSAE/kria-som-kr260-starter-kit-schematic-pdf-vs-constrains-xdc-pin-confusion-possible-explanation-on-fan-pinout?language=en_US.

Appendix A: List of symbols and abbreviations

A.1 List of abbreviations

SoC System on a chip

A.2 List of symbols

P_n (W) jmenovitý výkon stroje