



Company

Safran Data Systems GmbH
Friedrich Ebert Straße 75
51429 Bergisch Gladbach



Freelancer

Kroh Engineering
Dajana Kroh
In der Adelenhütte 4
51143 Köln

Letter of reference

As FPGA Project manager of new generation high-speed data acquisition and recording systems at Safran Data Systems GmbH, I highly recommend Dajana Kroh. Our company has been providing Industry and Aerospace Testing solutions since *the 1970s*, specializing in data and video acquisition and recording for end-to-end flight tests. Due to increasing requirements in the market, we needed a flexible professional with bundled knowledge and expertise in FPGA design to support our development team.

Freelancer Dajana Kroh was hired as a development engineer in the field of FPGA Design & Verification (November 1st, 2019 until August 31st, 2021). She performed the conceptual design, implementation, design verification via HDL simulation and HW verification of a real-time processing and filter block on target of a high-speed data recording and high capacity storage system. Her main accomplishments are:

- *Ethernet Multiplexer Block* that transfers data packets from multiple incoming Ethernet Ports via SGMII- and XGMII-standard and forwards them to a single Ethernet output stream for further processing.
- *Ipv4 Filter Block* that filters all incoming Ethernet frames up to 128 specified IP addresses with dynamic reconfiguration of the IP addresses during operation.
- *Irig106 Chapter 10 Filter Block* that records UDP data streams after the IRIG 106 Chapter 10 Standard using Recorder Data Streaming Transport Format 1. Where UDP Chapter 10 Full Packets can be recorded as single Ethernet packets or as fragmented Ethernet packets.

During her assignment she has shown to be qualified in the following topics:

- Hardware Description Language: VHDL, Verilog
- Intel/Altera Quartus IDE (Arria 10)
- Modern interconnects (PCI-Express, Ethernet)
- Ethernet Standard (MAC Protocol, IPv4 Protocol, UDP Protocol)



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- Legacy Telemetry standard IRIG106 with focus on Chapter 10 Full & Segmented Packets
- Memory Interface Standards (DDR4)
- HPS IP-Core (Platform Designer)
- Avalon Bus Interconnection
- Mentor Graphics ModelSim
- Allegra / SVN

During her time at our company, Dajana contributed significantly to the success of the project. All assigned tasks were completed with great care and to our full satisfaction. We would like to express our sincere appreciation for this.

We got to know Dajana as a pleasant, communicatively skilled and reliable colleague. She is very proactive and cooperative in the team, actively contributing to the knowledge base for colleagues and future developers. She familiarized herself quickly with the complex topic and flexibly responded to special requirements. At the same time, she never lost sight of the overarching objectives of the to be performed work.

We consider Dajana Kroh to be highly qualified as a service provider for aerospace or similar networking and data processing projects. Therefore, we would rehire her without hesitation.

In case of further questions, please feel free to contact me.

04.10.2021

Marcel Albers – Development, FPGA Project manager

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