UART Connection Orientated Communication Protocol

This document describes the software of the UART communication protocol for the EIVE PLOC project.

Content

[1. Introduction 3](#_Toc42850881)

[1.1. S 3](#_Toc42850882)

[1.2. Overview 3](#_Toc42850883)

[2. Package Structure 4](#_Toc42850884)

[3. Flow Charts 4](#_Toc42850885)

[4. Functions Overview 4](#_Toc42850886)

[4.1. Functions Provided By Xilinx 4](#_Toc42850887)

# **Introduction**

# **S**

# **Overview**

# **Package Structure**

The FIFO of the UART controller present on the PS has a maximum size of 64 bytes, meaning 32 bytes per direction.

Since the FIFO allowed the packet size to be a maximum of 32 bytes, only a few bytes could be used for the header, so only the most important information could be included there. Here 4 bytes were used for the header, so that still 28 bytes of the packet can be used for the actual user data.

Ein Bild, das Screenshot enthält.

Automatisch generierte Beschreibung

# **Header**

It is important for the other partner to know to which subsystem the commands are addressed or from which subsystem the data comes, whether the transmission of the packet was without errors and how many valid bytes are in the packet. Various status information about the connection-oriented mode of operation is also necessary.

The following information is transmitted in the header of the packets:

* .. ID
* CRC-8
* Data Size
* Flags

# **… ID**

# **CRC-8**

# **Data Size**

# **Flags**

# **Flow Charts**

# **Functions Overview**

# **Functions Provided By Xilinx**