

Chapter 1

C Code

Table ?? lists the different C files that make up the GBT control interface module and the send/receive module. For more information about the actual functions described in the files, see chapter ?. Files are available from

| File | Description |
|---------------------|--|
| cmds.h/cmds.c | Contain functions and definitions related to analysis, treatment and excecution of user input. |
| main.h | Contains global variables and structures, such as the signal structures and rs232 related variables. |
| main.c | Main program. There are one main.c for each module. |
| rs232.h/rs232.c | Contains functions related to rs232 communication (See ??) |
| signals.h/signals.c | Contains the signal structure and related functions (See ??). |
| timer.h/timer.c | Contains functions related to the program timer. (See ??) |

Table 1.1: List of C files used in the GBT Control Interface module and the Send/Receive module

Chapter 2

VHDL Code

Table ?? lists the different VHDL files used in this thesis. For more information about the actual functionality of the files, see chapter ?. Files are available from

| File | Description |
|---------------------|---|
| baudGen.vhd | Baud generator that generates a tick signal every 16. clock cycles. |
| fifo_buffer_chu.vhd | Describes the fifo-buffers used in the uart unit. |
| uart.vhd | Combines fifo_buffer_chu.vhd, baudGen.vhd, uart_rx.vhd and uart_tx.vhd into an uart unit. |
| uart_decoder.vhd | Reads bytes from the uart and manipulates the gbt registers (not done). |
| uart_gbt_pkg.vhd | Contains constants and records. |
| uart_rx.vhd | Uart receiver. |
| uart_tx.vhd | Uart transmitter. |
| uart_top.vhd | Combines all components together into one entity. |

Table 2.1: List of VHDL files used in this thesis.