Part 1

*VHDL Code*

*Text

Description automatically generated with medium confidence*

*Pin Planner*

A picture containing text

Description automatically generated

*RTL Window*

*Diagram

Description automatically generated*

**Part 2**

***VHDL Code***

***Text

Description automatically generated***

***Pin Planner***

**Graphical user interface

Description automatically generated**

***RTL Window***

***A picture containing waterfall chart

Description automatically generated***