

ECE 474/574 Specification Outline

ver 1.0, date

Coverpage

- Project title
- Name of system
- Revision number
- Date
- Author(s)[need to put all lab partners here for credit]

1.0 Revision History

- Revision, Date, Description of what changed

2.0 Introduction

- Background of Project - brief
- Document scope - what you are going to describe
- Reference documents
- Naming conventions - active low signals, etc

3.0 Architectural Overview

- What the system does
- Diagram showing top level interfaces to the system showing all inputs and outputs
- Interface Signal Descriptions - Each signal defined precisely so that someone else reading the document has no questions about what the signal does. Include the pin name, its direction (in or out) and a brief description. Use a table format if possible to enhance readability.
- Diagram showing top level interfaces between blocks inside system. Just the main interconnect signals are shown unless the design is simple.
- System initialization - reset states, special clocking methods described if necessary.

4.0 FUB descriptions

In this section, each FUB is described as the top level of the design was. The idea is to break things down recursively until things are simple enough to easily grasp.

4.1 FUB1

- Diagram showing top level interfaces to the FUB showing all inputs and outputs
- Interface Signal Descriptions - Each signal defined precisely so that someone else reading the document has no questions about what the signal does. Include the pin name, its direction (in or out) and a brief description. Use a table format if possible to enhance readability.
- Diagram showing top level interfaces between blocks inside system if any. Just the main interconnect signals are shown unless the design is simple.
- Operation of FUB - The operation of the FUB is given to a level of detail that someone else can understand how it operates.
- State machine diagrams, logic equations, timing diagrams as needed. State machine diagrams must be complete in state names, signal names, and transition conditions. Add notes to clarify any unusual conditions, modes of operation, etc.

4.2 FUB2

like FUB1

4.3 FUB3

ditto

4.4 FUBn

ditto

5.0 Testing

List the ways you have tested your design. Tell what the results were. List any areas that you think are not tested enough and what you would do to test those areas.

6.0 Miscellaneous

- Estimated gate count broken down by FUB [after 2nd spec submission]
- Estimated number of clock loads broken down by FUB. [after 2nd spec submission]

