

About This Handbook

This handbook contains two parts, *Part I: Virtex-II Data Sheet*, which provides product specifications for Virtex-II devices and *Part II: Virtex-II User Guide*, which describes the function and operation of Virtex-II devices. The *Virtex-II User Guide* also includes information on FPGA configuration techniques and PCB design considerations.

The *Virtex-II User Guide* covers the following topics:

- [Chapter 1: Timing Models](#)
- [Chapter 2: Design Considerations](#)
- [Chapter 3: Configuration](#)
- [Chapter 4: PCB Design Considerations](#)
- [Appendix A: Application Notes](#)
- [Appendix B: BitGen and PROMGen Switches and Options](#)
- [Appendix C: XC18V00 Series PROMs](#)
- [Appendix D: Glossary](#)

Additional Resources

The following table lists URLs for resources available on the web. For additional information, go to <http://www.xilinx.com>.

Resource	Description/URL
Handbook	This site contains the <i>Virtex-II Handbook</i> and the latest <i>Virtex-II Data Sheet</i> : http://www.xilinx.com/apps/virtexapp.htm
Application Notes	This site contains device-specific design techniques and approaches: http://www.xilinx.com/apps/appsweb.htm
Data Book	<i>The Programmable Logic Data Book</i> describes device-specific information on Xilinx device characteristics, including readback, boundary scan, configuration, length count, and debugging: http://www.xilinx.com/partinfo/databook.htm
Xcell Journals	This site contains quarterly journals for Xilinx programmable logic users: http://www.xilinx.com/xcell/xcell.htm
Tech Tips	See this site for the latest news, design tips, and patch information on the Xilinx design environment: http://www.xilinx.com/support/techsup/journals/index.htm
Answers Database	This database provides a current listing of solution records for Xilinx software tools. Search this database using the search function at: http://www.xilinx.com/support/searchtd.htm

Typographical Conventions

The following typographical conventions are used in this manual:

- **Red text** indicates a cross-reference to information within this document. Click red text to open the specified cross-reference.
- **Blue-underlined text** indicates a link to a Web page. Click blue-underlined text to browse the specified Web site.
- `Courier` font indicates prompts or program outputs displayed by the system.
speed grade: 5
- **Courier bold** indicates literal commands that you enter in a syntactical statement. However, braces “{ }” in Courier bold are not literal and square brackets “[]” in Courier bold are literal only in the case of bus specifications, such as bus [7:0].
rpt_del_net=
Courier bold also indicates menu commands: **File** → **Open**
- *Italic font* denotes the following items:
 - Variables that are substituted with user-defined values
`edif2ngd design_name`
 - References to other documents.
See the *Libraries Guide* for more information.
 - Emphasis in text
If a wire is drawn so that it overlaps the pin of a symbol, the two nets are *not* connected.
- Square brackets “[]” indicate an optional entry or parameter. However, in bus specifications, such as bus [7:0], they are required.
edif2ngd [option_name] design_name
- Braces “{ }” enclose a list of items from which you must choose one or more, and a vertical bar “|” separates items in a list of choices:
lowpwr = {on | off}
- A vertical ellipsis indicates repetitive material that has been omitted.
`IOB #1: Name = QOUT'`
`IOB #2: Name = CLKIN'`
`.`
`.`
`.`
- A horizontal ellipsis “. . .” indicates that an item can be repeated one or more times.
`allow block block_name loc1 loc2 . . . locn;`