

This chapter provides thermal resistance values and package information for Altera® Stratix® III devices, including:

- “Thermal Resistance” on page 17–2
- “Package Outlines” on page 17–2

Table 17–1 lists which Stratix III device, are available in FineLine BGA or Hybrid FineLine BGA packages.


Table 17–1. FineLine and Hybrid FineLine BGA Packages for Stratix III Devices

Device	Package	Pins
EP3SL50	FineLine BGA - Flip Chip (Option 1)	484
	FineLine BGA - Flip Chip (Option 1)	780
EP3SL70	FineLine BGA - Flip Chip (Option 1)	484
	FineLine BGA - Flip Chip (Option 1)	780
EP3SL110	FineLine BGA - Flip Chip (Option 1)	780
	FineLine BGA - Flip Chip (Option 1)	1152
EP3SL150	FineLine BGA - Flip Chip (Option 1)	780
	FineLine BGA - Flip Chip (Option 1)	1152
EP3SL200	Hybrid FineLine BGA - Flip Chip (Option 1)	780
	FineLine BGA - Flip Chip (Option 1)	1152
	FineLine BGA - Flip Chip (Option 1)	1517
EP3SL340	Hybrid FineLine BGA - Flip Chip (Option 1)	1152
	FineLine BGA - Flip Chip (Option 1)	1517
	FineLine BGA - Flip Chip (Option 1)	1760
EP3SE50	FineLine BGA - Flip Chip (Option 1)	484
	FineLine BGA - Flip Chip (Option 1)	780
EP3SE80	FineLine BGA - Flip Chip (Option 1)	780
	FineLine BGA - Flip Chip (Option 1)	1152
EP3SE110	FineLine BGA - Flip Chip (Option 1)	780
	FineLine BGA - Flip Chip (Option 1)	1152
EP3SE260	Hybrid FineLine BGA - Flip Chip (Option 1)	780
	FineLine BGA - Flip Chip (Option 1)	1152
	FineLine BGA - Flip Chip (Option 1)	1517

Thermal Resistance

 For Stratix III devices thermal resistance specifications, refer to the *Stratix Series Device Thermal Resistance Data Sheet*.

Package Outlines

 You can download Stratix III device package outlines from the *Device Packaging Specifications* web page.

Chapter Revision History

Table 17-2 lists the revision history for this chapter.

Table 17-2. Chapter Revision History

Date	Version	Changes Made
March 2010	1.7	Updated for the Quartus II software version 9.1 SP2 release: <ul style="list-style-type: none"> ■ Updated Table 17-1. ■ Minor text edits.
February 2009	1.6	Removed “Referenced Documents” section.
October 2008	1.5	Updated New Document Format.
May 2008	1.4	Updated “Package Outlines” section hyperlink.
November 2007	1.3	Updated Table 17-1.
October 2007	1.2	<ul style="list-style-type: none"> ■ Added new section “Referenced Documents”. ■ Added live links for references.
May 2007	1.1	Removed thermal resistance and package outline information and replaced with links referencing this information.
November 2006	1.0	Initial Release.