

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"> <li>■ Updated Table 17-1.</li> <li>■ Minor text edits.</li> </ul>
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"> <li>■ Added new section “Referenced Documents”.</li> <li>■ Added live links for references.</li> </ul>
May 2007	1.1	Removed thermal resistance and package outline information and replaced with links referencing this information.
November 2006	1.0	Initial Release.