

PK137 (v1.3) July 20, 2010

100% Material Declaration Data Sheet FF1152

Average Weight: 14.0g

Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Silicon Die					0.8848	6.32
	Silicon	7440-21-3	100.00		0.8848	
Solder Bump					0.0154	0.11
	Tin	7440-31-5	63.00		0.009702	
	Lead	7439-92-1	37.00		0.005698	
Underfill					0.112	0.80
	Silica	60676-86-0	70.00		0.0784	
	Epoxy Resin A	9003-36-5	20.00		0.0224	
	Epoxy Resin B	25068-38-6	3.00		0.00336	
	Hardener	19900-65-3	7.00		0.00784	
Heat Sink					8.3258	59.47
	Copper	7440-50-8	99.97		8.32330226	
	Nickel	7440-02-0	0.03		0.00249774	
Heat Sink Adhesive					0.0007	0.05
	Organopolysiloxane mixture	NA	100.00		0.0007	
Substrate					3.7156	26.54
	Copper	7440-50-8	47.61	Metal layer	1.76899716	
	Nickel	7440-02-0	0.51	Metal layer	0.01894956	
	Gold	7440-57-5	0.11	Metal layer	0.00408716	
	Glass fiber	N/A	10.35		0.3845646	
	BT (core)	N/A	27.54		1.02327624	
	Halogen fire retardant	N/A	5.25		0.195069	
	Solder mask	N/A	8.63		0.32065628	
Solder Balls					0.9394	6.71
	Tin	7440-31-5	63.00		0.591822	
	Lead	7439-92-1	37.00		0.347578	

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Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions	
3/23/06	1.0	Initial Xilinx release.	
7/13/06	1.1	100% Material Declaration.	
9/28/06	1.2	Updated component descriptions.	
7/20/10	1.3	Updated Heat Sink substance description.	

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