



100% Material Declaration Data Sheet

FFG1696

PK097 (v1.3) July 20, 2010

Average Weight: 20.7999g

Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Silicon Die					1.187223	5.708
	Silicon	7440-21-3	100.00		1.187223	
Solder Bump					0.008333	0.040
	Tin	7440-31-5	63.00		0.005250	
	Lead	7439-92-1	37.00		0.003083	
Underfill					0.147000	0.707
	Silica	60676-86-0	70.00		0.102900	
	Epoxy Resin A	9003-36-5	20.00		0.029400	
	Epoxy Resin B	25068-38-6	3.00		0.004410	
	Hardener	19900-65-3	7.00		0.010290	
Heat Sink					13.300000	63.943
	Copper	7440-50-8	99.90		13.286700	
	Nickel	7440-02-0	0.10		0.0133300	
Heat Sink Adhesive					0.085000	0.409
	Silane compound	Proprietary	70.00		0.059500	
	Filler materials	Proprietary	27.00		0.022950	
	Polymetric resin	Proprietary	3.00		0.002550	
Laminate					4.652150	22.366
	Copper	7440-50-8	47.61	Metal layer	2.214911	
	Nickel	7440-02-0	0.51	Metal layer	0.023726	
	Gold	7440-57-5	0.11	Metal layer	0.005117	
	Glass fiber	N/A	10.35		0.481502	
	Halogen fire retardant	N/A	5.25		0.244054	
	BT (core)	N/A	27.54		1.281355	
	Solder mask	N/A	8.63		0.401485	
Solder Balls					1.420156	6.828
	Tin	7440-31-5	95.50		1.356249	
	Silver	7440-22-4	4.00		0.056806	
	Copper	7440-50-8	0.50		0.007101	

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Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
12/20/05	1.0	Initial Xilinx release.
5/03/06	1.1	100% Material Declaration.
9/22/06	1.2	Updated component and substance weights.
7/20/10	1.3	Updated Heat Sink substance description.

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