

**Average Weight: 22.7955g**

Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
<b>Silicon Die</b>					<b>1.039000</b>	<b>4.558</b>
	Silicon	7440-21-3	100.00		1.039000	
<b>Solder Bump</b>					<b>0.051269</b>	<b>0.225</b>
	Tin	7440-31-5	63.00		0.032299	
	Lead	7439-92-1	37.00		0.018969	
<b>Underfill</b>					<b>0.105000</b>	<b>0.461</b>
	Silica	60676-86-0	70.00		0.073500	
	Epoxy Resin A	9003-36-5	20.00		0.021000	
	Epoxy Resin B	25068-38-6	3.00		0.003150	
	Hardener	19900-65-3	7.00		0.007350	
<b>Heat Spreader</b>					<b>11.0000</b>	<b>48.255</b>
	Copper	7440-50-8	99.90		10.989000	
	Nickel	7440-02-0	0.10		0.011000	
<b>Heat Spreader Adhesive</b>					<b>0.180000</b>	<b>0.790</b>
	Organopolysiloxane mixture	N/A	100.00		0.180000	
<b>Substrate</b>					<b>8.950000</b>	<b>39.262</b>
	Copper	7440-50-8	46.49	Metal layer	4.160855	
	Nickel	7440-02-0	0.52	Metal layer	0.046540	
	Gold	7440-57-5	0.11	Metal layer	0.009845	
	Halogen fire retardant	N/A	5.32		0.476140	
	Glass fiber	N/A	10.40		0.930800	
	BT (core)	N/A	28.56		2.556120	
	Solder mask	N/A	8.60		0.769700	
<b>Solder Balls</b>					<b>1.470240</b>	<b>6.450</b>
	Tin	7440-31-5	95.50		1.404079	
	Silver	7440-22-4	4.00		0.058810	
	Copper	7440-50-8	0.50		0.007351	

## Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
10/5/06	1.0	Initial Xilinx release.
7/20/10	1.1	Updated Heat Spreader substance description.

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