



# 100% Material Declaration Data Sheet FFG1136

PK226 (v1.0) August 6, 2007

Material Declaration Data Sheet

**Average Weight: 9.7816 g**

Component	Substance Description	CAS# or Description	% of Component	Use in Product	Component Weight/ Substance Weight (in grams)	Component % of Total
<b>Silicon Die</b>					<b>0.535760</b>	<b>5.477%</b>
	Silicon	7440-21-3	100.00		0.535760	
<b>Solder Bump</b>					<b>0.032320</b>	<b>0.330%</b>
	Tin	7440-31-5	63.00		0.020362	
	Lead	7439-92-1	37.00		0.011958	
<b>Underfill</b>					<b>0.026500</b>	<b>0.271%</b>
	Silica	60676-86-0	70.00		0.018550	
	Epoxy Resin A	9003-36-5	20.00		0.005300	
	Epoxy Resin B	25068-38-6	3.00		0.000795	
	Hardener	19900-65-3	7.00		0.001855	
<b>Heat Spreader</b>					<b>4.800000</b>	<b>49.072%</b>
	Copper	7440-50-8	99.60		4.780800	
	Nickel	7440-02-0	0.40		0.019200	
<b>Heat Spreader Adhesive</b>					<b>0.185000</b>	<b>1.891%</b>
	Organopolysiloxane mixture	N/A	100.00		0.185000	
<b>Substrate</b>					<b>3.253040</b>	<b>33.257%</b>
	Copper	7440-50-8	47.80	Metal Layer	1.554953	
	Nickel	7440-02-0	1.10	Metal Layer	0.035783	
	Gold	7440-57-5	0.15	Metal Layer	0.004880	
	Glass fiber	N/A	10.40		0.338316	
	Halogen fire retardant	N/A	5.25	Flame Retardant	0.170654	
	BT (core)	N/A	25.60		0.832778	
	Solder Mask	N/A	9.70		0.315545	
<b>Solder Balls</b>					<b>0.948980</b>	<b>9.702%</b>
	Tin	7440-31-5	95.50		0.906276	
	Silver	7440-22-4	4.00		0.037959	
	Copper	7440-50-8	0.50		0.004745	

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## Revision History

The following table shows the revision history for this document.

Date	Revision	Revision
8/6/07	1.0	Initial release.