



# 100% Material Declaration Data Sheet FGG484

PK110 (v1.3) May 30, 2008

Material Declaration Data Sheet

**Average Weight: 1.95 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>0.049</b>	<b>2.54%</b>
	Silicon	7440-21-3	100.00		0.049	
<b>Die Attach Material</b>					<b>0.0079</b>	<b>0.41%</b>
	Polymetric Resin	Trade Secret	3.00		0.0002	
	Diester Resin	Trade Secret	20.00		0.0015	
	Acrlate Resin	Trade Secret	7.00		0.0006	
	Silver	7440-22-4	70.00		0.0056	
<b>Mold Compound</b>					<b>0.00175</b>	<b>0.09%</b>
	SiO2 Filler	60676-86-0	86.20	Filler	0.00151	
	Epoxy Resin A	Trade Secret	3.00		0.00005	
	Epoxy Resin B	Trade Secret	3.00		0.00005	
	Phenol Resin A	Trade Secret	3.00		0.00005	
	Phenol Resin B	Trade Secret	3.00		0.00005	
	Metal Hydroxide	Trade Secret	1.50		0.00003	
	Carbon Black	1333-86-4	0.30		0.00001	
<b>Substrate</b>					<b>1.4707</b>	<b>75.42%</b>
	Copper	7440-50-8	46.27	Metal Layer	0.6805	
	Nickel	7440-02-0	0.60	Metal Layer	0.0088	
	Gold	7440-57-5	0.13	Metal Layer	0.0019	
	Glass Fiber (GF)	N/A	23.00		0.3383	
	Halogen Fire Retardant	N/A	3.20		0.0471	
	BT (core)	N/A	16.80		0.2471	
	Solder Mask (EP)	N/A	10.00		0.1470	
<b>Gold Wire</b>					<b>0.01587</b>	<b>0.81%</b>
	Gold	74410-57-5	100.00		0.01587	
<b>Solder Balls</b>					<b>0.4043</b>	<b>20.73%</b>
	Tin	7440-31-5	95.50		0.3861	
	Silver	7440-22-4	4.00		0.0162	
	Copper	7440-50-8	0.50		0.0020	

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## Revision History

The following table shows the revision history for this document.

<b>Date</b>	<b>Revision</b>	<b>Revision</b>
3/21/06	1.0	Initial release.
5/15/06	1.1	100% Material Declaration.
9/18/06	1.2	Updated component descriptions.
1/08/07	1.2.1	Corrected Gold Wire CAS# entry.
5/30/08	1.3	Correct CAS # for silver in solder ball composition. Updated weights.