

100% Material Declaration Data Sheet FF1704

Average Weight: 18.7326g

Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Silicon Die					1.187220	6.338
	Silicon	7440-21-3	100.00		1.187220	
Solder Bump					0.021443	0.114
	Tin	7440-31-5	63.00		0.013509	
	Lead	7439-92-1	37.00		0.007934	
Underfill					0.135000	0.721
	Silica	60676-86-0	70.00		0.094500	
	Epoxy Resin A	9003-36-5	20.00		0.027000	
	Epoxy Resin B	25068-38-6	3.00		0.004050	
	Hardener	19900-65-3	7.00		0.009450	
Heat Spreader					13.300000	70.999
	Copper	7440-50-8	99.90		13.286700	
	Nickel	7440-02-0	0.10		0.013300	
Heat Spreader Adhesive					0.125800	0.672
	Organopolysiloxane mixture	N/A	100.00		0.125800	
Substrate					2.353223	12.562
	Copper	7440-50-8	47.61	Metal layer	1.120381	
	Nickel	7440-02-0	0.51	Metal layer	0.012002	
	Gold	7440-57-5	0.11	Metal layer	0.002589	
	Glass fiber	N/A	10.35		0.243561	
	Halogen fire retardant	N/A	5.25	Flame retardant	0.123451	
	BT (core)	N/A	27.54		0.648155	
	Solder mask	N/A	8.63		0.203085	
Solder Balls					1.423460	8.594
	Tin	7440-31-5	63.00		1.014247	
	Lead	7439-92-1	37.00		0.595669	

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.
9/21/06	1.1	100% Material Declaration.
7/20/10	1.2	Updated Heat Spreader substance description.

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