



PK512 (v1.1) March 19, 2012

100% Material Declaration Data Sheet for Spartan®-3E/-3A FG484 (Cu Wire) Package

Average Weight: 2.347 g

Component	Substance Description	CAS# or Description	% of Component	Use in Product	Component Weight/ Substance Weight (in grams)	Component % of Total
Silicon Die					0.043305	1.845
	Silicon	7440-21-3	100.00		0.043305	
Die Attach Material					0.007922	0.337
	Silver	7440-22-4	77.50		0.006140	
	Bismaleimide monomer	Trade Secret	15.00		0.001188	
	Acrylate monomer	Trade Secret	7.50		0.000594	
Mold Compound					0.811873	34.587
	Solid Epoxy Resin	Trade Secret	5.00		0.040594	
	Phenol Resin	Trade Secret	3.00		0.024356	
	Phenol Novolac	9003-35-4	3.00		0.024356	
	Metal Hydroxide	Trade Secret	3.00		0.024356	
	Carbon Black	1333-86-4	0.30		0.002436	
	Silica fused	60676-86-0	70.40		0.571558	
	Silica Dioxide	7631-86-9	15.00		0.121781	
	Silica, crystalline	14808-60-7	0.30		0.002436	
Copper Wire					0.005455	0.232
	Copper	7440-50-8	97.28		0.005307	
	Palladium	7440-05-3	2.70		0.000147	
	Impurities	NA	0.02		0.000001	
Solder Balls					0.460670	19.625
	Tin (Sn)	7440-31-5	63.00		0.290222	
	Lead (Pb)	7439-92-1	37.00		0.170448	

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Component	Substance Description	CAS# or Description	% of Component	Use in Product	Component Weight/ Substance Weight (in grams)	Component % of Total
Substrate					1.018112	43.373
	Copper (Cu)	7440-50-8	27.90		0.284063	
	Nickel (Ni)	7440-02-0	5.55		0.056523	
	Gold (Au)	7440-57-5	0.40		0.004055	
	Glass fiber	65997-17-3	19.51		0.198648	
	Non halogen fire retardant	NA	0.01		0.000102	
	BT (core)	21645-51-2 105391-33-1 25722-66-1 9003-36-5 21645-51-2	40.09		0.408186	
	Solder mask	14807-96-6 7727-43-7 7631-86-9 34590-94-8 85954-11-6	6.54		0.066535	

Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
09/16/11	1.0	Initial Xilinx release.
03/19/12	1.1	Device family update.

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