



PK516 (v1.1) March 19, 2012

100% Material Declaration Data Sheet for Spartan®-3E/-3A FGG400 (Cu Wire) Package

Average Weight: 1.9400 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	2.232
	Silicon	7440-21-3	100.00		0.043305	
Die Attach Material					0.007922	0.408
	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					0.801770	41.328
	Epoxy Resin	Trade Secret	5.00		0.040089	
	Phenol Resin	Trade Secret	3.00		0.024053	
	Phenol Novolac	9003-35-4	3.00		0.024053	
	Metal Hydroxide	Trade Secret	3.00		0.024053	
	Carbon black	1333-86-4	0.30		0.002405	
	Silica fused	60676-86-0	70.40		0.564446	
	Silica Dioxide	7631-86-9	15.00		0.120266	
	Silica, crystalline	14808-60-7	0.30		0.002405	
Copper Wire					0.010151	0.523
	Copper	7440-50-8	97.28		0.009875	
	Palladium	7440-05-3	2.70		0.000274	
	Impurities	NA	0.02		0.000002	
Solder Balls					0.335050	17.271
	Tin (Sn)	7440-31-5	95.50		0.319973	
	Silver (Pb)	7440-22-4	4.00		0.013402	
	Copper (Cu)	7440-50-8	0.50		0.001675	

Component	Substance Description	CAS# or Description	% of Component	Use in Product	Component Weight/ Substance Weight (in grams)	Component % of Total
Substrate					0.741802	38.237
	Copper (Cu)	7440-50-8	27.09		0.200979	
	Nickel (Ni)	7440-02-0	5.06		0.037504	
	Gold (Au)	7440-57-5	0.36		0.002691	
	Glass fiber	65997-17-3	18.79		0.139359	
	Non halogen fire retardant	1675-54-3	0.01		0.000072	
	BT (core)	105391-33-1 25722-66-1 9003-36-5 21645-51-2 7440-38-2	38.60		0.286357	
	Solder mask	13676-54-5 25722-66-1 147-14-8 7727-43-7 61790-53-2 14807-96-6 461-58-5 7723-14-0	10.09		0.074840	

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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