



PK414 (v1.0) April 28, 2010

100% Material Declaration Data Sheet FGG484 (Used by Spartan-6 Devices)

Average Weight: 2.3000g

Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Silicon Die (FPGA)				Silicon IC	0.090946	3.954
	Doped silicon	7440-21-3	100.00		0.090946	
Gold Wire				Die to package	0.001522	0.456
	Gold	7440-57-5	99.048		0.001508	
	Palladium	7440-05-3	0.95		0.000014	
	Calcium	7440-70-2	0.002		0.000000	
Die Attach Adhesive					0.016016	0.696
	Silver	7440-22-4	77.5	Basis	0.012412	
	Bismaleimide monomer	Trade secret	15.00	Basis	0.002402	
	Acrylate monomer	Trade secret	7.5	Basis	0.001201	
Substrate					1.367969	59.477
	Copper	7440-50-8	28.693	Main material	0.392511	
	Nickel	7440-02-0	5.675	Main material	0.077632	
	Gold	7440-57-5	0.674	Main material	0.009220	
	Fiberglass	65997-17-3	19.942	Glass fiber	0.272800	
	Non-halogen fire retardant	1675-54-3	0.035	Flame retardant	0.000479	
	BT (core)	105391-33-1 25722-66-1 9003-36-5 21645-51-2 7440-38-2	36.709	Core	0.502168	
	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	8.272	Solder mask	0.113158	
Mold Compound					0.810542	35.241
	Solid epoxy resin	Trade secret	5.00	Main material	0.040527	
	Phenol resin	Trade secret	5.00	Main material	0.040527	
	Fused silica	60676-86-0	84.45	Filler	0.684502	
	Metal hydro oxide	Trade secret	5.00	Flame retardant	0.040527	
	Carbon black	1333-86-4	0.55	Color agent	0.004458	

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Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Solder Balls					0.004043	0.176
	Tin	7440-31-5	96.50		0.003902	
	Silver	7440-22-4	3.00		0.000121	
	Copper	7440-50-8	0.50		0.000020	

Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
04/28/10	1.0	Initial Xilinx release.

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