



PK678 (v1.0) Oct 3, 2014

100% Material Declaration Data Sheet for Spartan-3AN FGG676 Cu Wire Package

Average Weight: 2.671g

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					0.037747	1.413%
	Silicon	7440-21-3	100.00		0.037747	
Silicon Die 2					0.002919	0.109%
	Silicon	7440-21-3	100.00		0.002919	
Die Attach					0.006967	0.261%
	Silver	7440-22-4	77.50		0.005399	
	Bismaleimide monomer	Trade secret	15.00		0.001045	
	Acrylate monomer	Trade secret	7.50		0.000523	
Film					0.000017	0.001%
	Solid Epoxy Resin	NA	12.50		0.000002	
	Phenol Resin	NA	12.50		0.000002	
	Amorphous Silica	7631-86-9	35.00		0.000006	
	Synthetic Rubber	NA	40.00		0.000007	
Mold Compound					1.421610	53.224%
	Epoxy Resin	Trade secret	9.00		0.127945	
	Silica(Amorphous) A	60676-86-0	72.45		1.029956	
	Silica(Amorphous) B	7631-86-9	15.00		0.213242	
	Metal Hydroxide	Trade secret	3.00		0.042648	
	Carbon black	1333-86-4	0.55		0.007819	
Gold Wire					0.000233	0.009%
	Gold	7440-57-5	99.048		0.000231	
	Palladium	7440-05-3	0.95		0.000002	
	Calcium	7440-70-2	0.002		0.000000	
Copper Wire					0.007971	0.298%
	Copper	7440-50-8	98.25		0.007832	
	Palladium	7440-05-3	1.75		0.000139	
Solder Ball					0.566235	21.199%
	Tin	7440-31-5	95.50		0.540754	
	Silver	7440-22-4	4.00		0.022649	
	Copper	7440-50-8	0.50		0.002831	

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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
Substrate					0.627301	23.486%
	Gold	7440-57-5	58.41		0.366400	
	Nickel	7440-02-0	0.29		0.001795	
	Copper Plating	7440-50-8	2.20		0.013810	
	Copper Foil	7440-50-8	14.39		0.090263	
	Continuous Filament Fiber Glass	65997-17-3	5.63		0.035328	
	BT Core	7440-50-8	6.36		0.039886	
	Pre-preg Fabric	NA	4.36		0.027350	
Solder mask	14807-96-6 7727-43-7 7631-86-9 34590-94-8 91-20-3 85954-11-6	8.36		0.052469		

Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
10/03/2014	1.0	Xilinx Initial Release

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